

## **Consultant Report on EBITDA Projections Prepared by Greenko**

*Prepared for:*

Greenko Dutch B.V.

*Also provided to:*

Barclays Bank PLC

Deutsche Bank AG, Singapore Branch

Investec Bank plc

J.P. Morgan Securities plc

Morgan Stanley & Co. International plc

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# Abbreviations

Abbreviation	Description
AC	Alternating Current
APPC	Average Power Purchase Cost
APSPDCL	Southern Power Distribution Company of Andhra Pradesh Ltd.
APTRANSCO	Transmission Corporation of Andhra Pradesh Limited
Aux	Auxiliary Consumption
BESCOM	Bangalore Electricity supply company Ltd.
BOP	Balance of Plant
CERC	Central Electricity Regulatory Commission
COD	Commercial Operation Date
CUF	Capacity Utilization Factor
DC	Direct Current
DISCOM	Distribution Company
DTTILLP	Deloitte Touche Tohmatsu India LLP
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EPC	Engineering, procurement and construction
FAC	Fuel Adjustment Charge
FIT	Feed in Tariff
FY	Financial Year
GAAP	Generally Accepted Accounting Principles
GBI	Generation Based Incentive
GW	Giga Watt
HESCOM	Hubli Electric Supply Company Limited
HPERC	Himachal Pradesh Electricity Regulation Commission
HPSEB	Himachal Pradesh State Electricity Board
HT	High Tension
IFRS	International Financial Reporting Standards
INR	Indian Rupee
IREDA	Indian Renewable Energy Development Agency Ltd.
KERC	Karnataka Electricity Regulatory Commission
KPTCL	Karnataka Power Transmission Corporation Ltd.
LADA	Local Area Development Authority
LLC	Limited Liability Company
Ltd.	Limited
MKWh	Million Kilo Watt-hour
Mn	Million

<b>Abbreviation</b>	<b>Description</b>
MPPMCL	Madhya Pradesh Power Management Company Ltd
MSEDCL	Maharashtra State Electricity Distribution Company Ltd
MU	Million units (Million Kilo Watt-hour)
MW	Mega Watt
NLDC	National Load Dispatch Centre
O&M	Operations and Maintenance
OEM	Original Equipment Manufacturer
PLC	Public Limited Company
PLF	Plant Load Factor
PPA	Power Purchase Agreement
Pvt.	Private
REC	Renewable Energy Certificate
SCADA	Supervisory Control And Data Acquisition
SERC	State Electricity Regulatory Commission
TANGEDCO	Tamil Nadu Generation and Distribution Corporation Limited
TSERC	Telangana State Electricity Regulatory Commission
TSSPDCL	Southern Power distribution of Telangana Limited
Tx	Transmission
UERC	Uttarakhand Electricity Regulatory Commission
USC	US Cents
WRA	Wind Resource Assessment
WTG	Wind Turbine Generator

## Consultant Report on EBITDA Projections Prepared by Greenko Dutch B.V.

Board of Directors of Greenko Dutch B.V.  
 Barclays Bank PLC  
 Deutsche Bank AG, Singapore Branch  
 Investec Bank plc  
 J.P. Morgan Securities plc  
 Morgan Stanley & Co. International plc

We have performed the procedures in accordance with the engagement contract signed with Greenko Dutch B.V. (referred to as "Company") and Barclays Bank PLC, Deutsche Bank AG, Singapore Branch, Investec Bank plc, J.P. Morgan Securities plc, Morgan Stanley & Co. International plc (collectively, the "Joint Lead Managers"). The scope and sufficiency of these procedures is solely the responsibility of the Company. The Company is responsible for the EBITDA projections and underlying assumptions. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose. This report includes our procedures performed and results of such procedures.

We have performed certain procedures, as enumerated below, with respect to the assumptions relating to Earnings before Interest, Taxes, Depreciation and Amortization (referred to as "EBITDA") projections of a select set of 235.25 MW of hydro energy projects, 440 MW of wind energy projects and 399.4 MW solar power projects for the Financial Year 2018 (April 01, 2017 to March 31, 2018) and Financial Year 2019 (April 01, 2018 to March 31, 2019).

We have used the following approach and methodology:

Sr. No.	Items relating EBITDA Projections	Approach and Methodology
1.	EBITDA Projections model	i. Obtain the EBITDA Projections model from the Company and ascertain logic, assumptions and logic and flow of data used in the model and prove mathematical accuracy of the EBITDA Projections.
2.	Capacity units and Commissioning date	i. Obtain the commissioning certificate issued by third parties and power purchase agreement with utilities or direct consumers (PPAs) from the Company and compare capacity units and commissioning date mentioned in commissioning certificate and PPAs to the projected financial information used in EBITDA Projections model ii. For the cases where third party commissioning certificate is not available, obtain the commissioning date details (based on management's internal information) from the Company and compare commissioning date mentioned in management's internal information to the projected financial information used in EBITDA Projections model
3.	Net CUF/ PLF / Auxiliary Consumption and transmission charges	i. Obtain the Wind Resource Assessment (WRA) and energy production study reports submitted by third party technical consultants (engaged by the Company) from the Company and compare Net CUF/ PLF mentioned in such reports to the projected financial information used in EBITDA Projections model ii. Obtain the technical report for hydrology and power potential study done by third party consultants (engaged by Company) from the Client and compare the Net CUF/ PLF mentioned in such reports to the projected financial information used in EBITDA Projections model iii. Obtain the Solar Resource Assessment Report or energy estimate report submitted by third party technical consultants (engaged by the

Sr. No.	Items relating EBITDA Projections	Approach and Methodology
		Company) from the Company and compare Net CUF/ PLF mentioned in such reports for solar projects to the projected financial information used in EBITDA Projections model
4.	Generation based incentives (GBI)	i. Obtain GBI registration certificates issued by Indian Renewable Energy Development Agency from the Company and compare GBI as mentioned in the GBI registration certificates to the projected financial information used in EBITDA Projections model
5.	Transmission/ Wheeling and banking charges/ losses	i. Obtain the Regulations governing Transmission/ Wheeling and banking charges / losses and compare the Transmission/ Wheeling and banking charges/ losses mentioned in such regulations to the projected financial information used in EBITDA Projections model
6.	Tariff	i. Obtain power purchase agreement with utilities or direct consumers (PPAs) and Tariff orders issued by State Electricity Regulatory Commissions from the Company and compare the tariff mentioned in the PPAs and Tariff orders to the projected financial information used in EBITDA Projections model
7.	Royalty, Free energy and local area development charges (LADA)	i. Obtain power purchase agreements and implementation agreements signed with state government and utilities for hydro projects from the Company and compared royalty, free energy and LADA mentioned in such agreements to the projected financial information used in EBITDA Projections model
8.	Average Power Purchase Cost (APPC)	ii. Obtain the regulatory orders issued by State Electricity Regulatory Commission from the Company and compare the tariff mentioned in the regulatory orders to the projected financial information used in EBITDA Projections model
9.	Renewable Energy Certificate (REC)	i. Obtain the REC registration certificates issued by National Load Dispatch Centre from the Client and confirm whether the projects considered in EBITDA Projections model are registered
10.	Operating and maintenance (O&M) expenses	i. Obtain O&M contracts entered into with various parties from the Company and compare O&M expenses mentioned in the contracts to the projected financial information used in EBITDA Projections model ii. For the cases where there are no O&M contracts obtain the O&M expenses data (based on management's internal information) from the Company and compare O&M expenses mentioned in management's internal information to the projected financial information used in EBITDA Projections model
11.	Insurance charges	i. Obtain the Insurance Policies from the Company and compare the Insurance Premium mentioned in the Policies to the projected financial information used in EBITDA Projections model ii. For the cases where there are no Insurance Policies available, obtain the Insurance expense data (based on management's internal information) from the Company and compare the insurance expense mentioned in management's internal information to the projected financial information used in EBITDA Projections model
12.	Other expenses	i. Obtain the other expenses (based on management's internal information) including salaries & establishment expenses, from the Company and compare other expenses mentioned in management's

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Sr. No.	Items relating EBITDA Projections	Approach and Methodology
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internal information to the projected financial information used in EBITDA Projections model

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We have not conducted any due diligence of information provided in the technical or due diligence reports provided by TÜV Rheinland (India) Pvt Ltd, SgurrEnergy India Pvt. Ltd., 3TIER R&D India Private Limited, Tractebel Engineering Private Limited, Entura Hydro Tasmania India Pvt Ltd, Garrad Hassan India Private Ltd and AWS Truepower LLC.

We have not checked any land records/ land agreements / rent agreements/ property taxes. We have relied on Management Representation for all these expenses.

We did not explicitly evaluate the model logic and/or the associated input assumptions below EBITDA including, but not limited to, those calculations and assumptions related to taxes, interest, depreciation, financing structures, (i.e., tax equity, project debt financing), working capital, etc. Our scope also did not include any projected cash flows or projected balance sheet.

Any historical data has not been inspected by us.

We have the following main findings:

- We inspected the EBITDA model and found no mathematical inaccuracies.
- We noted the capacity and the commissioning date of the projects from the Commissioning certificates. The observations for individual projects are discussed in Section 4.
- We compared PLF shown in the model for wind projects with the P75 estimates given in WRA reports and noted no differences.
- We compared PLF shown in the model for solar projects with the P75 estimates given in solar resource assessment reports (PVsyst) reports and noted no differences.
- PLF/generation considered in the model for hydro power projects is in line with the estimates given in Tractebel report, Entura report and based on Management Representation for some projects where the internal assessment is lower than the technical report estimates.
- We compared royalty, free energy and LADA mentioned in Implementation agreements signed with state governments to the projected financial information used in EBITDA Projections model and noted that they are in agreement
- We inspected the PPAs to compare the tariff for operational wind, hydro and solar projects selling power to state electricity utilities and noted no differences.
- We compared the tariff for projects selling directly to industrial and commercial consumers with the terms of the PPA and applicability of charges with Karnataka Electricity Regulatory Commission (KERC) FY 2017-18 order (order dated April 11, 2017) and Andhra Pradesh Electricity Regulatory Commission (APERC) FY 2017-18 order (order dated March 31, 2017). We noted no differences. The observations for individual projects are discussed in detail in Section 4.
- We inspected the GBI registration letters from Indian Renewable Energy Development Agency Limited (IREDA) and snapshots of IREDA website registration for operational projects and noted that projects selling power to state electricity utilities are registered to avail GBI benefits. We compared the GBI rate mentioned in GBI guidelines issued by IREDA and noted no differences. The observations for individual projects are discussed in Section 4.
- We have inspected the REC registration certificates issued by National Load Dispatch Centre (NLDC). The observations on the impact on sale of RECs on EBITDA are discussed in Section 4.



- We compared the O&M expenses for hydro and solar power projects with Management representation and noted no differences.
- We compared the O&M expenses for solar projects with the benchmarks for solar projects listed in CERC order (dated March 30, 2016) named Determination of levellised generic tariff for FY 2016-17 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012 and noted that the difference is less than 1%
- We compared the O&M expenses for Hydro projects with the benchmarks for hydro projects listed in CERC order (dated April 18, 2017) named Determination of levellised generic tariff for FY 2017-18 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2017 and Uttarakhand Electricity Regulatory Commission (UERC) tariff order on Budhil dated 30<sup>th</sup> November 2016 and noted that the O&M expenses in the model is higher by ~22%
- We inspected the O&M agreements for wind power projects with the O&M Charges and escalation rate assumed in the model and noted that they are as per agreement. We compared the applicable tax on O&M Charges with Management representation and noted that they are in agreement.
- We compared the other expenses considered in the model for wind power projects with expenses provided in Management representation and noted that they are in agreement. Management represented that the expenses are based on internal estimates and their experience in operating such projects.

The details about the EBITDA level projections, underlying assumptions and detailed findings are given in the attached detailed report.

We were not engaged to and did not conduct an examination, the objective of which would be the expression of an opinion on the accompanying EBITDA projections. Accordingly, we do not express an opinion on whether the underlying assumptions provide a reasonable basis for the presentation. Had we performed additional procedures, other matters might have come to our attention that would have been reported to the Company. Furthermore, there will usually be differences between the forecasted and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

This report is intended solely for the information and use of the Company and the Joint Lead Managers (referred to as the "Specified Parties") and is not intended to be used or relied upon by anyone other than the Specified Parties. The report contains procedures agreed upon with the Company and may not be suitable for any investment decision or other purposes.

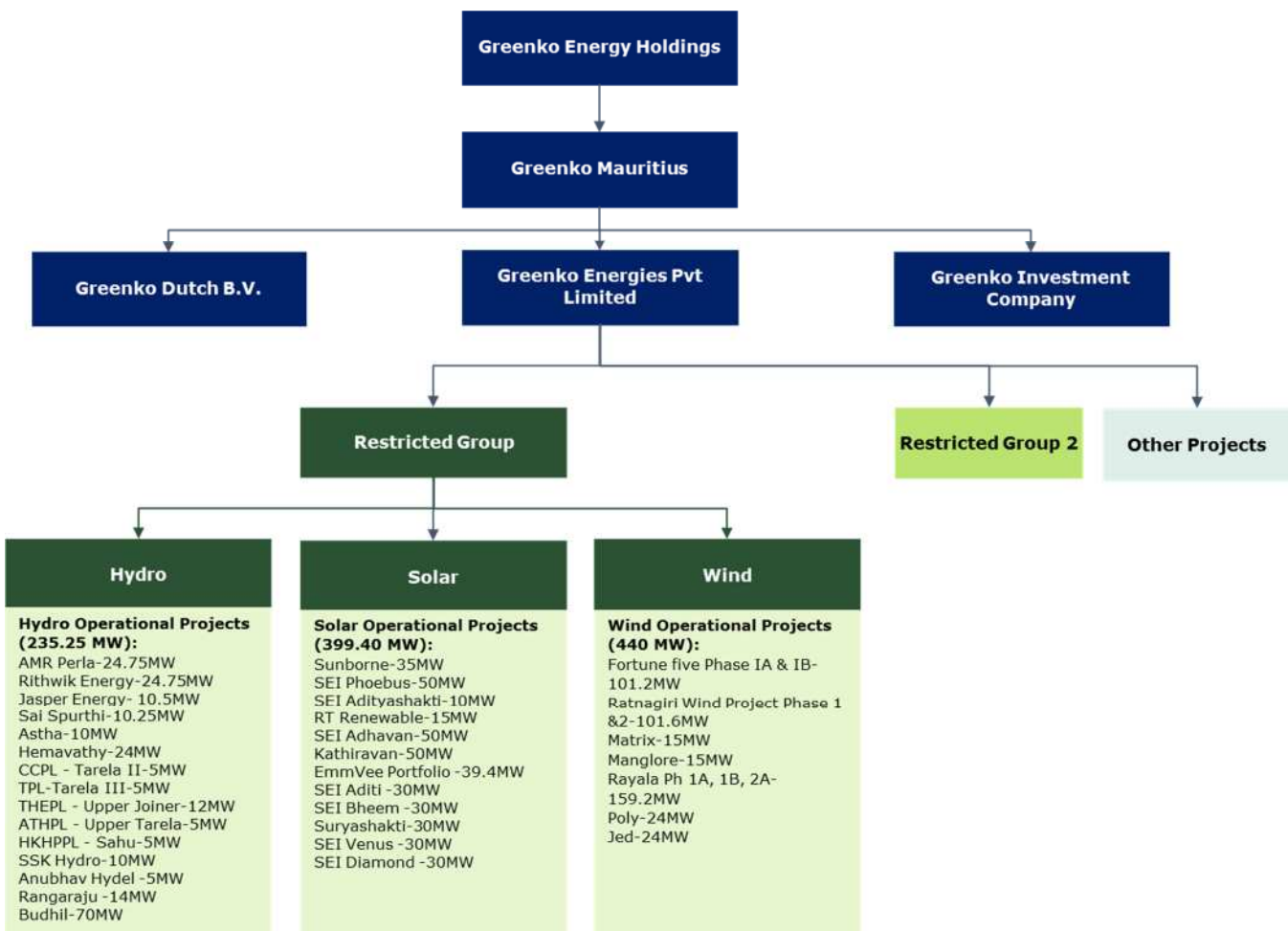
Conversion to United States Dollars (USD) is based on exchange rate of INR 64.8386 per USD 1.00, being the closing exchange rate published by Reserve Bank of India as of 31st March 2017

The representation provided by the Management is provided as Annexure 1.

# 1. Introduction

Greenko Energies Pvt. Ltd. is an independent power producer which owns and operates portfolio of wind, hydro, solar, natural gas and biomass based power generation assets in India. The Company has over 2500 MW of operating capacity (including assets with significant minority ownership but operational control). Greenko Mauritius Ltd, parent of Greenko Energies Pvt. Ltd., through its 100% owned Dutch subsidiary Greenko Dutch B.V. ("Greenko" or the "Company"), proposes to raise a high yield bond by public offer in the Singapore market.

The overall Greenko group structure with Restricted Group as provided by the Company Management is presented below:



Source: Greenko

## EBITDA Projections

The Company has prepared the financial projections considering the following 1074.65 MW of select hydro, wind and solar power projects in India:

- 235.25 MW of hydro power projects
- 440.00 MW of wind projects
- 399.40 MW of solar power projects

The above set of operational projects comprise the Restricted Group. The details of the specific projects considered in the projections are given later in Section 3.

The projected financials provide combined financial projections of projects and financial information associated with these projects including:

- Annual operating parameters – Net CUF/ PLF/generation, wheeling and banking charges and transmission losses
- Annual operating revenues
- Annual operating expenses
- Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA)

Revenues and EBITDA as shown in projected financials have not been recognized in accordance with Generally Accepted Accounting Principles (GAAP) but are instead non-GAAP estimates of future project performance. We have not ascertained the adherence of the projections to Indian GAAP or IFRS.

Further the projections of generation, revenues, expenses and EBITDA are consolidated measures of the projects reflecting 100% ownership. These figures do not take into account minority interests, tax equity, or other financial interests in the projects other than the Restricted Group.

## 2. Consolidated Projections and Overall Findings

Based on the assumptions made by the Company and their financial model, the combined financial forecasts for the Restricted Group are shown in the table below:

Particulars	FY 2018E	FY 2019E	FY 2018E	FY 2019E
	[INR Mn]	[INR Mn]	[USD Mn]	[USD Mn]
Saleable energy [MkWh]	2,691.55	2,687.14	2,691.55	2,687.14
<b>Revenue</b>				
Revenue from sale of power	13,471.07	13,449.43	207.76	207.43
Revenue from GBI	382.01	382.01	5.89	5.89
Revenue from REC	84.73	84.73	1.31	1.31
<b>Total income</b>	<b>13,937.81</b>	<b>13,916.17</b>	<b>214.96</b>	<b>214.63</b>
<i>Per unit income</i>	<i>INR</i>	<i>INR</i>	<i>USC</i>	<i>USC</i>
	5.18/kWh	5.18/kWh	7.99/kWh	7.99/kWh
<b>Expenses</b>				
O&M expenses	1,372.98	1,473.61	21.18	22.73
Other expenses	404.42	417.90	6.24	6.45
<b>Total expenses</b>	<b>1,777.40</b>	<b>1,891.51</b>	<b>27.41</b>	<b>29.17</b>
<i>Per unit expense</i>	<i>INR</i>	<i>INR</i>	<i>USC</i>	<i>USC</i>
	0.66/kWh	0.70/kWh	1.02/kWh	1.09/kWh
<b>EBITDA</b>	<b>12,160.41</b>	<b>12,024.67</b>	<b>187.55</b>	<b>185.46</b>
EBITDA %	87.25%	86.41%	87.25%	86.41%

\*Translations were made at the exchange rate of INR 64.8386 per USD 1.00, being the closing exchange rate published by Reserve Bank of India as of 31<sup>st</sup> March 2017

The underlying input assumptions for operating characteristics / parameters, revenues and expenses for the Restricted Group and our overall findings if any are described below.

### Capacity and Commissioning date

We obtained the commissioning certificates of all the operational projects and compared the commissioning dates and capacity with the assumptions in the model and found no differences except for Rithwik and Ratnagiri.

We obtained the Commissioning certificate for Rithwik and noted that 24 MW of the project has commissioned. The interconnection approval by KPTCL indicated a project capacity of 24.75 MW and Management represented that the installed capacity of the plant is 24.75 MW based on the interconnection approval. We compared the capacity in the model for Rithwik with capacity in Management representation and noted that they are in agreement.

Phase 2 of the Ratnagiri project consists of 20 GE Turbines. We obtained the Commissioning certificate and noted that the capacity of each turbine is 1.6 MW. Management represented that the actual turbine capacity is 1.8 MW due to capacity enhancement. We compared the capacity in model and Management representation and noted no differences.

Our observations for individual projects are discussed in Section 4.

## Operating characteristics/ parameters

### Wind Power Projects

We obtained the wind resource assessment (WRA) reports prepared by technical consultants AWS Truepower LLC and Garrad Hassan India Private Ltd for all the wind power projects.

Because of the uncertainty involved in pattern of wind flows, the WRA Reports provide estimates of generation/ plant load factor (PLF) based on different confidence levels called as P99, P95, P90, P75 and P50. The number represents the probability that the actual generation will exceed the estimated generation. So, a P75 represents that there is a 75% probability that actual generation will be higher than the estimated generation. Hence, P90 estimates are lower than P75 estimates which are lower than P50 estimates.

We compared the PLF in the model for wind projects with the P75 estimates given in WRA reports and noted no differences.

### Solar Power Projects

We obtained the solar resource assessment (PVsyst) reports prepared by TÜV Rheinland (India) Pvt Ltd, SgurrEnergy India Pvt. Ltd., 3TIER R&D India Private Limited and Tractebel Engineering Private Limited for all the solar power projects which indicated the energy generation estimates.

We compared the PLF in the model for solar projects with the P75 estimates given in the PVsyst reports and found no differences.

### Hydro Power Projects

We obtained the due diligence reports for hydro power projects prepared by Tractebel Engineering Private Limited ("Tractebel report") dated June 2014 and Entura Hydro Tasmania India Pvt. Ltd. ("Entura report") dated September 2013.

PLF/generation considered in the model for hydro power projects is in line with the estimates given in Tractebel report, Entura report and based on Management Representation for some projects where the internal assessment is lower than the P75 estimates.

For AMR, the PLF considered in the model is greater than the P75 estimate provided in the Tractebel report and we enquired the management about the difference. Management indicated that both AMR and Rithwik projects are on the same river and share the same hydrological resources. Management indicated that the combined generation of AMR and Rithwik is same as the combined P75 estimate provided in Tractebel report for both the plants. Based on the above, PLF considered for Rithwik is lower than P75 estimate provided in Tractebel report. We compared the combined PLF for AMR and Rithwik with the P75 estimates for these two projects and noted no difference.

## Revenue approach / assumptions

The Restricted Group projects considered for the analysis have three possible sources of revenues:

- Sale of electricity to distribution utilities or direct sale to consumers, and
- Generation based incentives (GBI)
- Renewable energy certificate

### Revenue from sale of electricity

The Restricted Group is selling power from operational projects under different sale models.

- Sale to electricity utilities
- Direct sale to end consumers (industrial/commercial)

### **Sale to electricity utilities**

The Restricted Group has long-term Power Purchase Agreements (PPAs) for operational projects. State electricity utilities considered for the Restricted Group sign long-term PPA for tenures of 13 - 40 years for hydro, wind and solar power projects.

The wind and hydro PPAs are signed through one of the following mechanism to electricity utilities: Feed-in-tariff ("FIT") and APPC-REC model. Under FIT mechanism, the tariff is fixed by state electricity commissions and the power generator is paid same tariff for the entire life of the project. Under APPC-REC mechanism, average pooled purchase cost of distribution companies is paid to the power generator and in addition to this price, power generator also receives Renewable energy certificate which can be sold at power exchange.

The solar PPA's are signed through competitive bidding route with tariff based bidding or through Feed-in-Tariff mechanism.

We inspected the PPAs to compare the tariff assumed by the Restricted Group for operational projects and noted that the tariff was in agreement with the PPAs.

### **Direct sale to industrial/commercial consumers**

The Restricted Group has long-term Power Purchase Agreements (PPAs) under group captive and third party route in two states, Karnataka and Andhra Pradesh.

For the projects in Karnataka, the Restricted Group has PPAs of different tenures with the end consumers (Industrial/Commercial). As per the PPAs, the power is sold to the end consumers at a discount to the tariff (energy charges) charged by the respective electricity utilities for that particular category of consumers (Industrial/Commercial). The tariff to be charged by the electricity utilities is approved by Karnataka Electricity Regulatory Commission (KERC) by periodic Tariff Orders. The PPAs are signed under group captive mode or direct sale mode.

The Electricity Rules, 2005 specify that for projects to be considered as captive generating plant, the consumers need to have at least 26% of equity in the project and consume at least 51% of the power on an annual basis. Further, the captive users need to consume power in proportion to their shares in ownership of the power plant within a variation not exceeding 10%. We examined the proportion of contracted energy as per the PPAs and the proportion of the shareholding as per the SHAs and noted that the proportions are in agreement with the requirements i.e. 26% equity and at least 51% consumption of power for captive generating stations under the Electricity Rules, 2005. Management represented that for Mangalore and Matrix power projects, equity shareholding and the proportionate consumption of power from the plant will be maintained during FY 2017-18 and FY 2018-19 to ensure group captive generating plant status.

For selling power to end consumers, the projects have to bear certain charges like cross-subsidy surcharge (wherever applicable) and wheeling and banking charges to be paid to electricity utilities. These charges are also approved by the KERC in its Tariff Orders. Cross subsidy surcharge is not applicable for captive generating stations. Wheeling charges are 5% of energy injected into the grid.

Due to seasonal nature and uncertainty of wind generation, it is not always possible to match the generation with offtake of energy by consumers and this may result in demand-supply mismatches. Maximum wind generation is usually observed during the period of May-September, so the generation that is not consumed is banked with the electricity utility to be consumed in the later months. This banking facility is provided in Karnataka over a wind year from April to March and energy not consumed during a wind year will be deemed to be purchased by the distribution licensee in whose jurisdiction, the project is located. The payment for such energy shall be at the rate of 85% of the latest generic tariff for wind energy. The latest generic tariff for wind energy in the state is 4.50 Rs/kWh as per KERC order dated February 24, 2015. 85% of this tariff will be 3.83 Rs/kWh. Based on the general seasonal generation pattern and tenure of banking period allowed under the regulations, we ascertained whether there will be any lapse of annual generation. Banking charges are 2% of energy injected into the grid.

The tariff for sale of power to end-consumers assumed by the Restricted Group for projecting the revenues for FY2017-18 is net of the discount and charges. It has assumed an escalation of 1% on the FY 2017-18 tariffs for projecting the tariff for FY 2018-19.

We calculated the net tariff applicable for the projects based on the tariff category & discount mentioned in the PPA, wheeling & banking charges, cross subsidy surcharge and end user tariff in Karnataka Electricity Regulatory Commission (KERC) Tariff order for FY 2017-18. We compared the calculated tariffs with the tariff assumed in model and found no differences. The observations for individual projects are discussed in more detail in Section 4.

Sriram-Manempalli, Beachaganapalli, Jogipet, Regode has entered into PPAs with consumers in Andhra Pradesh with PPA tenure of 10-20 years. We also noted the various charges under Andhra Pradesh Electricity Regulatory Commission (APEREC) Tariff order for FY 2017-18. The tariff for sale of power to end-consumers assumed by the Restricted Group for projecting the revenues for FY2017-18 is net of the discount and charges. It has assumed an escalation of 1% on the FY 2017-18 tariffs for projecting the tariff for FY 2018-19.

### **Income from Generation Based Incentive (GBI)**

We obtained the Operational Guidelines for Implementation of "Extension Scheme for Generation Based Incentive for Grid Connected Wind Power Projects" as revised on April 22, 2015 and noted the requirements for availing generation based incentives (GBI). Wind power projects which are commissioned/likely to be commissioned between April 01, 2012 and March 31, 2017 (including both the dates) and selling power to electricity utilities are eligible for GBI. Wind power projects meeting the eligibility criteria have to register the projects with Indian Renewable Energy Development Agency Ltd (IREDA, a Govt. of India Enterprise and nodal agency for registering and issuance of GBI) for availing the GBI. As per GBI operational guidelines, the projects will get the GBI at a rate of INR 0.50 per kWh of electricity fed into the grid with a maximum limit of INR 10.0 million per MW. The total disbursement in the year will be limited to INR 2.5 million/MW during the first four years. The incentive is over and above the tariff approved by State Electricity Regulatory Commissions (SERCs) in various states.

We obtained the GBI registration letters from Indian Renewable Energy Development Agency Limited (IREDA) and snapshots of IREDA website registration for Ratnagiri Wind, Rayala Wind, Poly and Jed wind projects who are selling power to state electricity utilities. The Restricted Group has assumed GBI for these four wind projects selling power to state electricity utilities.

### **Revenue from Renewable Energy Certificates (RECs)**

Projects selling power to electricity utilities under APPC are eligible for availing RECs. RECs are tradable instruments which can be sold in Indian Power Exchanges at a market determined price. However, the price of the non Solar REC is limited at their floor price of INR 1000/REC and forbearance price of INR 3000/REC. The floor and forbearance price is determined by Central Electricity Regulatory Commission (CERC) and are applicable from 1<sup>st</sup> April 2017 and shall remain valid until further orders from the commission. The Supreme Court has stayed trading in Renewable Energy Certificates (RECs). The Restricted Group has assumed the floor price for projecting the revenues from RECs. We have inspected the REC registration certificates issued by National Load Dispatch Centre (NLDC). The observations on the impact on sale of RECs on EBITDA are discussed in Section 4.

## **Operating expenses approach / assumptions**

### **Wind power projects**

The projects in the Restricted Group have signed agreements for operation & maintenance (O&M) of the wind power projects with the respective Original Equipment Manufacturers (OEMs) / wind turbine manufacturers. We have inspected the O&M agreements to understand the assumptions used for O&M expenses.

In addition there are personnel, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

### **Hydro Power Projects**

The Restricted Group uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects. Corporate overheads are not considered in these projections. The observations for individual projects are more fully discussed in Section 4.

### **Solar power projects**

The Restricted Group uses the in-house capability for O&M of Solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects. Corporate overheads are not considered in these projections. The observations for individual projects are more fully discussed in Section 4.



## 3. Restricted Group and Projections

Greenko Dutch BV through its subsidiaries owns and operates a portfolio of hydro, wind and solar assets and plans to increase its portfolio by developing new Greenfield assets or by acquiring projects.

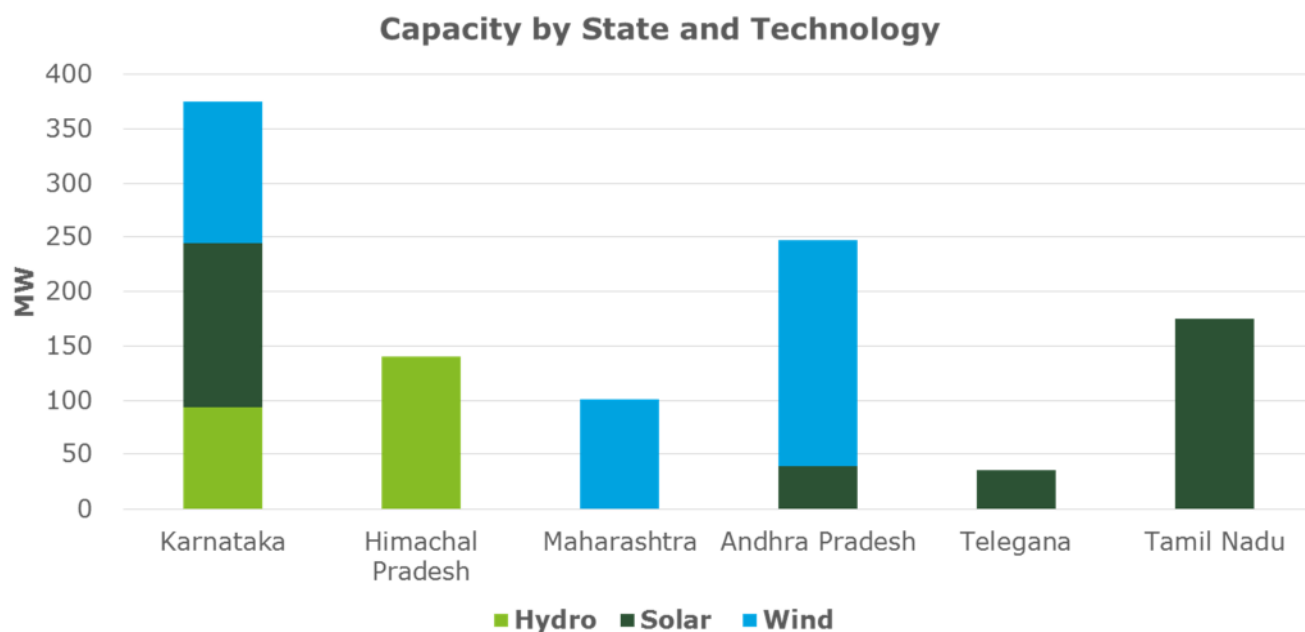
The projections made by the Company cover the select hydro, wind and solar power projects in India with capacity of 1074.65 MW. This set of projects is referenced as the Restricted Group. All the projects considered in this Restricted Group are operational. The projects covered in the Restricted Group are described in the table below.

SI No	Type	Project Name	SPV	Location	Capacity	Commercial operation Date	
					[MW]	First Unit	Last Unit
<b>Operational Projects- Hydro</b>							
1	Hydro	AMR	AMR Power Private Limited	Karnataka	24.75	12-Sep-09	19-Jun-10
2	Hydro	Rithwik	Rithwik Energy Private Limited	Karnataka	24.75	28-Sep-09	28-Sep-09
3	Hydro	Sonna hydro	Jasper Energy Private Limited	Karnataka	10.50	04-Aug-10	04-Aug-10
4	Hydro	Sai Spurthi	Sai Spurthi Power Private Limited	Karnataka	10.25	24-Dec-04	30-Sep-05
5	Hydro	Upper Awa and Dehar	Astha Projects India Limited	Himachal Pradesh	10.00	30-Jul-04	23-May-08
6	Hydro	Hemavathy	Hemavathy Power and Light Private Limited	Karnataka	24.00	17-Feb-11	12-Jan-06
7	Hydro	Taraila II	Cimaron Constructions Private Limited	Himachal Pradesh	5.00	02-Mar-09	22-Mar-09
8	Hydro	Taraila III	Tarela Power Limited	Himachal Pradesh	5.00	10-Jun-11	10-Jun-11
9	Hydro	Upper Joiner	Tejassarnika Hydro Energies Private Limited	Himachal Pradesh	12.00	26-Jun-11	10-Aug-11
10	Hydro	Upper Taraila	AT Hydro Private Limited	Himachal Pradesh	5.00	10-Sep-09	10-Sep-09
11	Hydro	Sahu	Him Kailash Hydro Power Private Limited	Himachal Pradesh	5.00	22-Aug-08	22-Aug-08
12	Hydro	Luni II and III	Sri Sai Krishna Hydro Energies Private Limited	Himachal Pradesh	10.00	31-May-09	12-Nov-09
13	Hydro	Binua Parai	Anubhav Hydel Private Limited	Himachal Pradesh	5.00	09-May-11	09-May-11
14	Hydro	Sumez	Ranga Raju Warehousing Private Limited	Himachal Pradesh	14.00	19-Mar-12	19-Mar-12
15	Hydro	Budhil	Greenko Budhil Hydro Power Pvt. Ltd	Himachal Pradesh	70.00	26-May-12	30-May-12
<b>Total Operational Capacity (MW) - Hydro</b>					<b>235.25</b>		
<b>Operational Projects- Solar</b>							
1	Solar	Dominicus	Sunborne Energy Andhra Pvt. Ltd	Telangana	35.00	11-Feb-16	11-Feb-16
2	Solar	Phoebus	SEI Phoebus (P) Ltd.	Tamil Nadu	50.00	08-Feb-16	08-Feb-16
3	Solar	Adityashakti	SEI Adityasakthi (P) Ltd.	Tamil Nadu	10.00	30-Oct-15	30-Oct-15

SI No	Type	Project Name	SPV	Location	Capacity	Commercial operation Date	
					[MW]	First Unit	Last Unit
4	Solar	RT Renewable	RT Renewable Energy India (P) Ltd.	Tamil Nadu	15.00	28-Mar-16	28-Mar-16
5	Solar	Adhavan	SEI Adhavan Power Private Limited	Tamil Nadu	50.00	31-Mar-16	31-Mar-16
6	Solar	Kathiravan	SEI Kathiravan Power Pvt Ltd.	Tamil Nadu	50.00	09-Mar-17	09-Mar-17
7	Solar	Sriram-Manempalli, Beachaganapalli, Jogipet, Regode	SEI Sriram Power Pvt. Ltd.	Andhra Pradesh/ Telangana	39.40	04-May-13	21-Sep-15
8	Solar	Aditi	SEI Aditi Power Pvt. Ltd.	Karnataka	30.00	30-Mar-17	30-Mar-17
9	Solar	Bheem	SEI Bheem Pvt. Ltd.	Karnataka	30.00	30-Mar-17	30-Mar-17
10	Solar	Suryashakti	SEI Suryashakti Power Private Limited	Karnataka	30.00	30-Mar-17	30-Mar-17
11	Solar	Venus	SEI Venus Private Limited	Karnataka	30.00	28-Mar-17	28-Mar-17
12	Solar	Diamond	SEI Diamond Private Limited	Karnataka	30.00	28-Mar-17	28-Mar-17
<b>Total Operational Capacity (MW)- Solar</b>					<b>399.40</b>		
<b>Operational Projects- Wind</b>							
1	Wind	Fortune Five	Fortune five Hydel Projects Pvt Ltd	Karnataka	101.20	09-Nov-13	27-Jun-14
2	Wind	Ratnagiri Wind	Ratnagiri Wind power Project Pvt Ltd	Maharashtra	101.60	08-Dec-12	31-Oct-15
3	Wind	Matrix	Matrix Power Wind Private Limited	Karnataka	15.00	09-Nov-13	09-Nov-13
4	Wind	Mangalore	Mangalore Energies Private Limited	Karnataka	15.00	05-May-14	05-May-14
5	Wind	Rayala Wind	Rayala Wind Power Company Private Limited	Andhra Pradesh	159.20	29-Nov-13	06-May-15
6	Wind	Poly	Poly Solar Parks Private Limited	Andhra Pradesh	24.00	23-Jul-16	23-Jul-16
7	Wind	Jed	Jed Solar Parks Private Limited	Andhra Pradesh	24.00	23-Jul-16	23-Jul-16
<b>Total Operational Capacity (MW)- Wind</b>					<b>440.00</b>		
<b>Total Capacity considering all projects (MW)</b>					<b>1,074.65</b>		

Source: Greenko

The projects considered in the Restricted Group are spread across six states of India. The capacity distribution by states and technology is presented here:



Source: Greenko

Every project considered for this Restricted Group is discussed in the following section. In project wise discussions, we have given a project overview and explained the basis for assumptions related to operational performance, revenue and expenses. Each project level description also has projections of saleable energy, revenue, operating expenses and EBITDA.

Based on the assumptions made by the Company and their EBITDA Projections model, the EBITDA contribution by each project to the combined projections is provided in the table below:

SI No	Type	Project Name	EBITDA		EBITDA	
			FY 2018E [INR Mn]	FY 2019E [INR Mn]	FY 2018E [USD Mn]	FY 2019E [USD Mn]
<b>Operational Projects- Hydro</b>						
1	Hydro	AMR	310.09	311.82	4.78	4.81
2	Hydro	Rithwik	114.28	113.03	1.76	1.74
3	Hydro	Sonna hydro	21.69	21.22	0.33	0.33
4	Hydro	Sai Spurthi	89.57	88.77	1.38	1.37
5	Hydro	Upper Awa and Dehar	109.99	108.87	1.70	1.68
6	Hydro	Hemavathy	223.71	222.45	3.45	3.43
7	Hydro	Taraila II	58.15	57.35	0.90	0.88
8	Hydro	Taraila III	63.25	62.63	0.98	0.97
9	Hydro	Upper Joiner	69.72	67.92	1.08	1.05
10	Hydro	Upper Taraila	59.17	58.51	0.91	0.90
11	Hydro	Sahu	49.31	48.73	0.76	0.75
12	Hydro	Luni II and III	95.60	94.65	1.47	1.46
13	Hydro	Binua Parai	74.14	73.69	1.14	1.14
14	Hydro	Sumez	125.66	124.43	1.94	1.92
15	Hydro	Budhil	795.33	770.46	12.27	11.88

SI No	Type	Project Name	EBITDA		EBITDA	
			FY 2018E [INR Mn]	FY 2019E [INR Mn]	FY 2018E [USD Mn]	FY 2019E [USD Mn]
<b>Total EBITDA - Hydro</b>			<b>2,259.67</b>	<b>2,224.52</b>	<b>34.85</b>	<b>34.31</b>
<b>Operational Projects- Solar</b>						
1	Solar	Dominicus	429.74	425.92	6.63	6.57
2	Solar	Phoebus	706.87	701.09	10.90	10.81
3	Solar	Adityashakti	148.78	147.56	2.29	2.28
4	Solar	RT Renewable	204.33	202.40	3.15	3.12
5	Solar	Adhavan	670.28	664.14	10.34	10.24
6	Solar	Kathiravan	492.16	487.56	7.59	7.52
7	Solar	Sriram-Manempalli, Beachaganapalli,Jogipet, Regode	348.40	348.73	5.37	5.38
8	Solar	Aditi	335.49	332.35	5.17	5.13
9	Solar	Bheem	335.49	332.35	5.17	5.13
10	Solar	Suryashakti	326.57	323.82	5.04	4.99
11	Solar	Venus	329.70	326.03	5.08	5.03
12	Solar	Diamond	328.69	325.03	5.07	5.01
<b>Total EBITDA - Solar</b>			<b>4,656.48</b>	<b>4,616.98</b>	<b>71.82</b>	<b>71.21</b>
<b>Operational Projects- Wind</b>						
1	Wind	Fortune Five	1,024.81	1,027.21	15.81	15.84
2	Wind	Ratnagiri Wind	1,085.20	1,075.92	16.74	16.59
3	Wind	Matrix	267.47	268.97	4.13	4.15
4	Wind	Mangalore	291.50	293.65	4.50	4.53
5	Wind	Rayala Wind	1,869.89	1,856.58	28.84	28.63
6	Wind	Poly	352.69	330.42	5.44	5.10
7	Wind	Jed	352.69	330.42	5.44	5.10
<b>Total EBITDA - Wind</b>			<b>5,244.25</b>	<b>5,183.17</b>	<b>80.88</b>	<b>79.94</b>
<b>Total EBITDA - all projects</b>			<b>12,160.41</b>	<b>12,024.67</b>	<b>187.55</b>	<b>185.46</b>

\*Translations were made at the exchange rate of INR 64.8386 per USD 1.00, being the closing exchange rate published by Reserve Bank of India as of 31<sup>st</sup> March 2017

## 4. Project level description and observations

The following summarizes key project assumptions underlying the financial model forecasts, projected financials based on the assumptions and our observations related to these assumptions.

### Operational Solar Power Projects

#### Sunborne Energy Andhra Pvt. Ltd.

##### Project overview

Sunborne Energy Andhra Pvt. Ltd. ("Dominicus") is a solar power project located in the Mahabubnagar district of Telangana. The project has capacity of 35 MW. The project was commissioned in February 2016.

Energy generated from Dominicus is sold to Southern Power distribution of Telangana Limited (TSSPDCL) under long term PPA with tenure of 20 years. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	35 MW
Procurer	Southern Power distribution of Telangana Limited (TSSPDCL)
Tariff	Fixed tariff of Rs. 6.45 per kWh for tenure of PPA
Expiry	20 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	35.00	35.00
Net CUF [%]	23.36%	23.25%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.36	0.36
Saleable energy [MkWh]	71.28	70.92
Tariff [INR/kWh]	6.45	6.45
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	459.73	457.41
<b>Expenses</b>		
O&M expenses [INR Mn]	29.99	31.49
Other expenses [INR Mn]		
Total expenses [INR Mn]	29.99	31.49
EBITDA [INR Mn]	429.74	425.92
EBITDA margin [%]	93.48%	93.12%

## Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by TSSPDCL and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Lenders Engineer Report prepared by TÜV Rheinland (India) Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with TSSPDCL and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## SEI Phoebus (P) Ltd.

### Project overview

SEI Phoebus (P) Ltd. ("Phoebus") is a solar power project located in the Virudunagar district of Tamil Nadu. The project has capacity of 50 MW and has been operational since February, 2016.

Energy generated from Phoebus is sold to the Tamil Nadu Generation and Distribution Corporation Limited (TANDECO) under long term PPA with tenure of 25 years. The project is awarded through Feed in Tariff mechanism. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	50 MW
Procurer	Tamil Nadu Generation and Distribution Corporation Limited (TANDECO)
Tariff	Fixed tariff of Rs. 7.01 per kWh for tenure of PPA
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	50.00	50.00
Net CUF [%]	24.45%	24.33%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.54	0.53
Saleable energy [MkWh]	106.57	106.03
Tariff [INR/kWh]	7.01	7.01
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	747.05	743.27
<b>Expenses</b>		
O&M expenses [INR Mn]	40.18	42.18
Other expenses [INR Mn]		
Total expenses [INR Mn]	40.18	42.18
EBITDA [INR Mn]	706.87	701.09
EBITDA margin [%]	94.62%	94.32%

## Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by TANGEDCO and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Due Diligence Report prepared by TÜV Rheinland (India) Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with TANGEDCO and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## SEI Adityasakthi (P) Ltd.

### Project overview

SEI Adityasakthi (P) Ltd. ("Adityasakthi") is a solar power project located in Trichy and Perambalur districts of Tamil Nadu. The project has capacity of 10 MW and has been operational since October, 2015.

Energy generated from Adityasakthi is sold to the Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) under long term PPA with tenure of 25 years. The project is awarded through Feed in Tariff mechanism. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	10 MW
Procurer	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)
Tariff	Fixed tariff of Rs. 7.01 per kWh for tenure of PPA
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	10.00	10.00
Net CUF [%]	25.74%	25.61%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.11	0.11
Saleable energy [MkWh]	22.44	22.32
Tariff [INR/kWh]	7.01	7.01
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	157.27	156.48
<b>Expenses</b>		
O&M expenses [INR Mn]	8.49	8.92
Other expenses [INR Mn]		

Parameter	FY 2018E	FY 2019E
Total expenses [INR Mn]	8.49	8.92
EBITDA [INR Mn]	148.78	147.56
EBITDA margin [%]	94.60%	94.30%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by TANGEDCO and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Due Diligence Report prepared by TÜV Rheinland (India) Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with TANGEDCO and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### RT Renewable Energy India (P) Ltd.

#### Project overview

RT Renewable Energy India (P) Ltd. ("RT Renewable") is a solar power project located in the Virudhunagar district of Tamil Nadu. The project has capacity of 15 MW and has been operational since March, 2016.

Energy generated from RT Renewable is sold to the Tamil Nadu Generation and Distribution Corporation Limited (TANDECO) under long term PPA with tenure of 25 years. The project is awarded through Feed in Tariff mechanism. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	15 MW
Procurer	Tamil Nadu Generation and Distribution Corporation Limited (TANDECO)
Tariff	Fixed tariff of Rs. 7.01 per kWh for tenure of PPA
Expiry	25 years from COD

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	15.00	15.00
Net CUF [%]	23.60%	23.46%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.16	0.15
Saleable energy [MkWh]	30.86	30.67
Tariff [INR/kWh]	7.01	7.01
<b>Revenues</b>		



Parameter	FY 2018E	FY 2019E
Revenue from sale of power [INR Mn]	216.34	215.01
<b>Expenses</b>		
O&M expenses [INR Mn]	12.01	12.61
Other expenses [INR Mn]		
Total expenses [INR Mn]	12.01	12.61
EBITDA [INR Mn]	204.33	202.40
EBITDA margin [%]	94.45%	94.13%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by TANGEDCO and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the technical due diligence report prepared by SgurrEnergy India Pvt. Ltd. and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with TANGEDCO and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### SEI Adhavan Power Private Limited

#### Project overview

SEI Adhavan Power Private Limited ("Adhavan") is a solar power project located in the Virudhunagar district of Tamil Nadu. The project has capacity of 50 MW and has been operational since March, 2016.

Energy generated from Adhavan is sold to the Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) under long term PPA with tenure of 25 years. The project is awarded through Feed in Tariff mechanism. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	50 MW
Procurer	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)
Tariff	Fixed tariff of Rs. 7.01 per kWh for tenure of PPA
Expiry	25 years from COD

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	50.00	50.00
Net CUF [%]	23.16%	23.02%

Parameter	FY 2018E	FY 2019E
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.51	0.50
Saleable energy [MkWh]	100.93	100.33
Tariff [INR/kWh]	7.01	7.01
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	707.55	703.28
<b>Expenses</b>		
O&M expenses [INR Mn]	37.28	39.14
Other expenses [INR Mn]		
Total expenses [INR Mn]	37.28	39.14
EBITDA [INR Mn]	670.28	664.14
EBITDA margin [%]	94.73%	94.43%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by TANGEDCO and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Due Diligence Report prepared by 3TIER R&D India Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with TANGEDCO and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### SEI Kathiravan Power Pvt Ltd.

#### Project overview

SEI Kathiravan Power Pvt Ltd. ("Kathiravan") is a solar power project located in the Virudhunagar district of Tamil Nadu. The project has capacity of 50 MW and has been operational since March, 2017.

Energy generated from Kathiravan is sold to the Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) under long term PPA with tenure of 25 years. The project is awarded through Feed in Tariff mechanism. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	50 MW
Procurer	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)
Tariff	Fixed tariff of Rs. 5.10 per kWh for tenure of PPA
Expiry	25 years from COD

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	50.00	50.00
Net CUF [%]	23.87%	23.74%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.52	0.52
Saleable energy [MkWh]	104.01	103.48
Tariff [INR/kWh]	5.10	5.10
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	530.44	527.76
<b>Expenses</b>		
O&M expenses [INR Mn]	38.28	40.19
Other expenses [INR Mn]		
Total expenses [INR Mn]	38.28	40.19
EBITDA [INR Mn]	492.16	487.56
EBITDA margin [%]	92.78%	92.38%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by TANGEDCO and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Technical Due Diligence Report prepared by SgurrEnergy India Pvt. Ltd. and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with TANGEDCO and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### SEI Aditi Power Private Limited

#### Project overview

SEI Aditi Power Private Limited ("Aditi") is a solar power project located in the Tumkur district of Karnataka. The project has capacity of 30 MW and has been operational since March, 2017.

Energy generated from Aditi is sold to the Bangalore Electric Supply Company Limited (BESCOM) under long term PPA with tenure of 25 years. The project was awarded through competitive procurement process. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	30 MW
Procurer	Bangalore Electric Supply Company Limited (BESCOM)
Tariff	Fixed tariff of Rs. 6.51 per kWh for tenure of PPA

Parameter	Value
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	30.00	30.00
Net CUF [%]	20.87%	20.75%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.27	0.27
Saleable energy [MkWh]	54.58	54.25
Tariff [INR/kWh]	6.51	6.51
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	355.33	353.19
<b>Expenses</b>		
O&M expenses [INR Mn]	19.85	20.84
Other expenses [INR Mn]		
Total expenses [INR Mn]	19.85	20.84
EBITDA [INR Mn]	335.49	332.35
EBITDA margin [%]	94.42%	94.10%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by BESCOM and noted no differences.
- PLF and degradation factor in the model are in line with the P75 estimates and degradation factor given in the Due Diligence Report prepared by 3TIER R&D India Private Limited.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with BESCOM and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### SEI Bheem Private Limited

#### Project overview

SEI Bheem Private Limited ("Bheem") is a solar power project located in the Tumkur district of Karnataka. The project has capacity of 30 MW and has been operational since March, 2017.

Energy generated from Bheem is sold to the Bangalore Electric Supply Company Limited (BESCOM) under long term PPA with tenure of 25 years. The project is awarded through Competitive procurement process. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	30 MW
Procurer	Bangalore Electric Supply Company Limited (BESCOM)
Tariff	Fixed tariff of Rs. 6.51 per kWh for tenure of PPA
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	30.00	30.00
Net CUF [%]	20.87%	20.75%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.27	0.27
Saleable energy [MkWh]	54.58	54.25
Tariff [INR/kWh]	6.51	6.51
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	355.33	353.19
<b>Expenses</b>		
O&M expenses [INR Mn]	19.85	20.84
Other expenses [INR Mn]		
Total expenses [INR Mn]	19.85	20.84
EBITDA [INR Mn]	335.49	332.35
EBITDA margin [%]	94.42%	94.10%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by BESCOM and noted no differences.
- PLF and degradation factor in the model are in line with the P75 estimates and degradation factor given in the Due Diligence Report prepared by 3TIER R&D India Private Limited.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with BESCOM and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## SEI Suryashakti Power Private Limited

### Project overview

SEI Suryashakti Power Private Limited ("Suryashakti") is a solar power project located in the Tumkur district of Karnataka. The project has capacity of 30 MW and has been operational since March, 2017.

Energy generated from Suryashakti is sold to the Bangalore Electric Supply Company Limited (BESCOM) under long term PPA with tenure of 25 years. The project was awarded through competitive procurement process. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	30 MW
Procurer	Bangalore Electric Supply Company Limited (BESCOM)
Tariff	Fixed tariff of Rs. 6.51 per kWh for tenure of PPA
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	30.00	30.00
Net CUF [%]	20.35%	20.25%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.27	0.27
Saleable energy [MkWh]	53.21	52.94
Tariff [INR/kWh]	6.51	6.51
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	346.41	344.66
<b>Expenses</b>		
O&M expenses [INR Mn]	19.85	20.84
Other expenses [INR Mn]		
Total expenses [INR Mn]	19.85	20.84
EBITDA [INR Mn]	326.57	323.82
EBITDA margin [%]	94.27%	93.95%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by BESCOM and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Techno Economic Viability Study prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with BESCOM and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### SEI Venus Private Limited

#### Project overview

SEI Venus Private Limited ("Venus") is a solar power project located in the Chitradurga district of Karnataka. The project has capacity of 30 MW and has been operational since March, 2017.

Energy generated from Venus is sold to the Hubli Electric Supply Company Limited (HESCOM) under long term PPA with tenure of 25 years. The project was awarded through competitive procurement process. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	30 MW
Procurer	Hubli Electric Supply Company Limited (HESCOM)
Tariff	Fixed tariff of Rs. 6.51 per kWh for tenure of PPA
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	30.00	30.00
Net CUF [%]	20.57%	20.42%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.27	0.27
Saleable energy [MkWh]	53.79	53.38
Tariff [INR/kWh]	6.51	6.51
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	350.18	347.53
<b>Expenses</b>		
O&M expenses [INR Mn]	20.48	21.50
Other expenses [INR Mn]		
Total expenses [INR Mn]	20.48	21.50
EBITDA [INR Mn]	329.70	326.03
EBITDA margin [%]	94.15%	93.81%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by Karnataka Power Transmission Corporation Limited (KPTCL) and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Energy Yield Assessment Report prepared by SgurrEnergy India Pvt. Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with HESCOM and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## SEI Diamond Private Limited

### Project overview

SEI Diamond Private Limited ("Diamond") is a solar power project located in the Chitradurga district of Karnataka. The project has capacity of 30 MW and has been operational since March, 2017.

Energy generated from Diamond is sold to the Bangalore Electric Supply Company Limited (BESCOM) under long term PPA with tenure of 25 years. The project is awarded through Competitive procurement process. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	30 MW
Procurer	Bangalore Electric Supply Company Limited (BESCOM)
Tariff	Fixed tariff of Rs. 6.51 per kWh for tenure of PPA
Expiry	25 years from COD

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	30.00	30.00
Net CUF [%]	20.51%	20.36%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.27	0.27
Saleable energy [MkWh]	53.63	53.23
Tariff [INR/kWh]	6.51	6.51
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	349.16	346.52
<b>Expenses</b>		
O&M expenses [INR Mn]	20.48	21.50
Other expenses [INR Mn]		
Total expenses [INR Mn]	20.48	21.50
EBITDA [INR Mn]	328.69	325.03
EBITDA margin [%]	94.14%	93.80%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by Karnataka Power Transmission Corporation Limited (KPTCL) and noted no differences.
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Energy Yield Assessment Report prepared by SgurrEnergy India Pvt. Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with BESCOM and noted that they are in agreement.
- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.



## SEI Sriram Power Pvt. Ltd.

### Project overview

SEI Sriram Power Pvt. Ltd. ("Sriram-Manempalli, Beachaganapalli, Jogipet, Regode") is a solar power project located in Anantpur of Andhra Pradesh and Medak district of Telangana. The project has capacity of 39.4 MW and has been operational since November, 2015.

Energy generated from Sriram-Manempalli, Beachaganapalli, Jogipet, Regode is sold to various HT Commercial and HT Industrial consumers, under third party open access mode. Separate PPAs have been signed by the project with these consumers. The Project uses the in-house capability for O&M of solar power projects.

Parameter	Value
Installed Capacity	39.4 MW
Procurer	HT Industrial and HT Commercial consumers
Tariff	Individual negotiated tariff for each consumer
Expiry	10-20 Years

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	39.40	39.40
Net CUF [%]	18.90%	18.80%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.33	0.32
Saleable energy [MkWh]	64.91	64.58
Tariff [INR/kWh]	5.83	5.89
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	378.50	380.33
<b>Expenses</b>		
O&M expenses [INR Mn]	30.09	31.60
Other expenses [INR Mn]		
Total expenses [INR Mn]	30.09	31.60
EBITDA [INR Mn]	348.40	348.73
EBITDA margin [%]	92.05%	91.69%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by Transmission corporation of Andhra Pradesh Limited (APTRANSCO) and noted no differences
- We compared the PLF and degradation factor in the model with the P75 estimates and degradation factor given in the Energy Yield Assessment Report prepared by SgurrEnergy India Pvt. Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We recalculated the net tariff applicable for the projects based on the tariff category mentioned in the PPAs signed with various consumers, wheeling & banking charges, cross subsidy surcharge and end user tariff in Telangana State Electricity Regulatory Commission (TSERC) Tariff order for FY 17-18. We

compared the recalculated tariffs with the tariff assumed in model and found no differences. As per Telangana Solar Power Policy 2015, for any solar power plant located within the state and selling power to third parties within the state, 100% exemption shall be provided on the cross subsidy surcharge as determined by TSERC for five years from the date of commissioning of the solar power plant. Hence no cross subsidy surcharge is considered.

- The Project uses the in-house capability for O&M of solar power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Operational Hydro Power Projects

### AMR Power Private Limited

#### Project overview

AMR Power Private Limited ("AMR") is a 24.75 MW hydro project across river Netravathi in Dakshina Karnataka district of Karnataka. The project was commissioned in June 2010.

Energy generated from AMR is proposed to be sold to various HT Commercial and HT Industrial consumers, under third party open access mode. Long term PPAs have been signed by AMR with some consumers and rest of capacity is sold on short term basis. The Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	24.75 MW
Procurer	HT Industrial and HT Commercial consumers
Tariff	Individual negotiated tariff for each consumer
Expiry	Large long term PPAs and short term sale

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	24.75	24.75
CUF [%]	38.00%	38.00%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	7.30	7.30
Saleable energy [MkWh]	75.09	75.09
Tariff [INR/kWh]	5.04	5.09
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	378.44	382.23
<b>Expenses</b>		
O&M expenses [INR Mn]	68.36	70.41
Other expenses [INR Mn]		
Total expenses [INR Mn]	68.36	70.41
EBITDA [INR Mn]	310.09	311.82
EBITDA margin [%]	81.94%	81.58%

**Observations**

- We compared the capacity and COD of the project with the Commissioning certificates issued by Karnataka Power Transmission Corporation Limited and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited. The PLF considered in the model is greater than the P75 estimate provided in the Tractebel report and we enquired the management about the difference. Management indicated that both AMR and Rithwik Hydro power projects are on the same river and share the same hydrological resources and Management indicated that the combined potential of AMR and Rithwik is same as the combined P75 estimate provided in Tractebel report for both the plants. We compared the combined PLF for AMR and Rithwik with the P75 estimates for these two projects and noted no difference.
- Auxiliary consumption is in line with industry standards.
- Management represented that the project sells energy to consumers through a mix of large long term PPAs and short term sale basis. We compared the tariff of these large PPAs which represented 69% of total energy sold. The tariff for these PPAs are in line with tariff considered by Management for the entire project. Management represented that they would be able to realise Rs 5.04 for FY 2017-18 and Rs 5.09 for FY 2018-19. We compared the tariffs considered in the model for the entire project and tariff represented by the management and noted no differences.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

**Rithwik Energy Private Limited**

**Project overview**

Rithwik Energy Private Limited (“Rithwik”) is a 24.75 MW hydro project across river Netravathi in Dakshina Karnataka district of Karnataka. The project was commissioned in September 2009.

Power generated by the project is sold to Bangalore Electricity Supply Company Limited through a long term PPA with tenure of 20 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	24.75 MW
Procurer	Bangalore Electricity Supply Company Limited (BESCOM)
Tariff	Rs 2.80 per kWh
Expiry	20 Years

## Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	24.75	24.75
CUF [%]	26.20%	26.20%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	1.14	1.14
Saleable energy [MkWh]	55.67	55.67
Tariff [INR/kWh]	2.80	2.80
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	155.87	155.87
<b>Expenses</b>		
O&M expenses [INR Mn]	41.59	42.84
Other expenses [INR Mn]		
Total expenses [INR Mn]	41.59	42.84
EBITDA [INR Mn]	114.28	113.03
EBITDA margin [%]	73.32%	72.52%

## Observations

- We compared the capacity and COD of the project with the commissioning certificates and interconnection approval issued by Karnataka Power Transmission Corporation Limited. We obtained the Commissioning certificate for Rithwik Energy and noted that 24 MW of the project has commissioned. The interconnection approval by KPTCL indicated a project capacity of 24.75 MW and Management represented that the installed capacity of the plant is 24.75 MW based on the interconnection approval. We compared the capacity in the model for Rithwik Energy with capacity in Management representation and noted that they are in agreement.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited. The PLF considered in the model is lower than the P75 estimate provided in Tractebel report and we enquired the management about the difference. Management indicated that both AMR and Rithwik projects are on the same river and share the same hydrological resources and Management indicated that the combined potential of AMR and Rithwik is same as the combined P75 estimate provided in Tractebel report for both the plants. We compared the combined PLF for AMR and Rithwik with the P75 estimates for these two projects and noted no difference.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with BESCO and noted that they are in agreement. The tariff provided in PPA is applicable for the first 10 years of operations. PPA also provided that that tariff for 11<sup>th</sup> year onwards would be determined by KERC. KERC in its generic Tariff Order dated 11.12.2009, has stipulated that the tariff at the end of the tenth year would be applicable for the next ten years without escalation for all renewable energy projects. Hence the same tariff would be applicable for the rest of the term of PPA
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Jasper Energy Private Limited

### Project overview

Jasper Energy Private Limited ("Sonna Hydro") is a 10.5 MW hydro project across Sonna Barrage, Bhima river, in the Bijapur district of Karnataka. The project was commissioned in August 2010.

The project had entered into a PPA with Hubli Electric Supply Company Limited (HESCOM) with tenure of 20 years. The project has issued notice for terminating the PPA and same is being contested by HESCOM in Supreme Court of India. Supreme Court of India has yet to issue an order on this case but has issued an order dated June 23, 2016, indicating the interim tariff to be provided by HESCOM till the Supreme Court of India decides on the matter. Power generated by the project is being sold to Hubli Electric Supply Company Limited (HESCOM). The Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	10.5 MW
Procurer	Hubli Electric Supply Company Limited (HESCOM)
Tariff	Rs 4.16 per unit (Interim tariff decided by Supreme Court of India)
Expiry	20 Years

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	10.50	10.50
CUF [%]	10.00%	10.00%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.18	0.18
Saleable energy [MkWh]	9.01	9.01
Tariff [INR/kWh]	4.16	4.16
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	37.50	37.50
<b>Expenses</b>		
O&M expenses [INR Mn]	15.80	16.28
Other expenses [INR Mn]		
Total expenses [INR Mn]	15.80	16.28
EBITDA [INR Mn]	21.69	21.22
EBITDA margin [%]	57.85%	56.59%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by Hubli Electric Supply Corporation Limited (HESCOM) and noted no differences.
- The PLF in the model is in line with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited.
- Auxiliary consumption is in line with industry standards.
- The project had signed a PPA with Hubli Electric Supply Corporation Limited (HESCOM) for Rs 2.80 per kWh for the tenure of PPA. The project had issued notice for terminating the PPA and same is being contested by HESCOM in Supreme Court of India. Supreme Court of India has yet to issue an order on this case but has issued an order dated June 23, 2016, indicating the interim tariff to be provided by

HESCOM till the Supreme Court of India decides on the matter. We compared the tariff in the model and the tariff provided in order dated June 23, 2016 issued by Supreme Court of India and noted that they are in agreement.

- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Sai Spurthi Power Private Limited

### Project overview

Sai Spurthi Power Private Limited ("Sai Spurthi") is a 10.25 MW hydro project across Arkavathi River in the Bangalore rural district of Karnataka. The entire project was commissioned in September 2005.

Power generated by the projects is sold to Karnataka Power Transmission Corporation Limited (KPTCL) through a PPA with tenure of 20 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	10.25 MW
Procurer	Karnataka Power Transmission Corporation Limited (KPTCL)
Tariff	Rs 3.422 per kWh
Expiry	20 Years

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	10.25	10.25
CUF [%]	38.65%	38.65%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.69	0.69
Saleable energy [MkWh]	34.01	34.01
Tariff [INR/kWh]	3.42	3.42
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	116.38	116.38
<b>Expenses</b>		
O&M expenses [INR Mn]	26.81	27.61
Other expenses [INR Mn]		
Total expenses [INR Mn]	26.81	27.61
EBITDA [INR Mn]	89.57	88.77
EBITDA margin [%]	76.96%	76.27%

## Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by Karnataka Power Transmission Corporation Limited and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with KPTCL and noted that they are in agreement. The tariff provided in PPA is applicable for the first 10 years of operations. PPA also provided that that tariff for 11<sup>th</sup> year onwards would be determined by KERC. KERC in its generic Tariff Order dated 11.12.2009, has stipulated that the tariff at the end of the tenth year would be applicable for the next ten years without escalation for all renewable energy projects. Hence the same tariff would be applicable for the rest of the term of PPA.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Hemavathy Power and Light Private Limited

### Project overview

Hemavathy Power and Light Private Limited ("Hemavathy") is a SPV that holds two projects viz.

- 8 MW hydro project of Hemavathy Power and Light Private Limited commissioned in August 2005 across Hemavathy Left Bank Canal in district Hassan of Karnataka
- 16 MW hydro project of The Sandur Manganese and Iron Ores Limited commissioned in April 2001 across Hemavathy Left Bank Canal in district Hassan of Karnataka.

Power generated by the projects is sold to Karnataka Power Transmission Corporation Limited (KPTCL) through a PPA with tenure of 20 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	24 MW
Procurer	Karnataka Power Transmission Corporation Limited (KPTCL)
Tariff	Rs 3.422 per kWh
Expiry	20 Years

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	24.00	24.00
CUF [%]	37.69%	37.69%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	1.58	1.58
Saleable energy [MkWh]	77.65	77.65
Tariff [INR/kWh]	3.42	3.42
<b>Revenues</b>		

Parameter	FY 2018E	FY 2019E
Revenue from sale of power [INR Mn]	265.73	265.73
<b>Expenses</b>		
O&M expenses [INR Mn]	42.02	43.28
Other expenses [INR Mn]		
Total expenses [INR Mn]	42.02	43.28
EBITDA [INR Mn]	223.71	222.45
EBITDA margin [%]	84.19%	83.71%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by Karnataka Power Transmission Corporation Limited and noted no differences
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with KPTCL and noted that they are in agreement. The tariff provided in PPA is applicable for the first 10 years of operations. PPA also provided that that Tariff for 11<sup>th</sup> year onwards would be determined by KERC. KERC in its generic Tariff Order dated 11.12.2009, has stipulated that the tariff at the end of the tenth year would be applicable for the next ten years without escalation for all renewable energy projects. Hence the same tariff would be applicable for the rest of the term of PPA
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### Astha Project India Limited

#### Project overview

Astha Projects India Limited ("Upper Awa and Dehar") is a SPV that holds two projects viz.

- 5 MW Dehar Hydro Electric Power Project ("Dehar") commissioned in July 2004 across Dehar khad, a tributary of Beas river in the district Chamba of Himachal Pradesh
- 5 MW Upper-Awa hydroelectric project ("Upper Awa") commissioned in May 2008 across Awa khad, a tributary of Binwa river in the district Kangra of Himachal Pradesh

Power generated by the projects is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

PPA details for Dehar	Value
Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.50 per kWh
Expiry	40 Years
Free Power	0% for first 15 years, 10% from 16 <sup>th</sup> Year onwards



**PPA details for Upper Awa Value**

Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.95 per kWh
Expiry	40 Years
Free Power	0% for first 15 years, 10% from 16 <sup>th</sup> Year onwards

**Project level projections**

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	10.00	10.00
CUF [%]	63.08%	63.08%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	1.11	1.11
Saleable energy [MkWh]	54.15	54.15
Tariff [INR/kWh]	2.73	2.73
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	147.57	147.57
<b>Expenses</b>		
O&M expenses [INR Mn]	37.57	38.70
Other expenses [INR Mn]		
Total expenses [INR Mn]	37.57	38.70
EBITDA [INR Mn]	109.99	108.87
EBITDA margin [%]	74.54%	73.77%

**Observations**

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the average tariff provided in PPAs with HPSEB and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Cimaron Constructions Private Limited

### Project overview

Cimaron Constructions Private Limited ("Taraila II") is a 5.0 MW hydro project on Tarailai khad, a tributary of Baira river in the district Chamba of Himachal Pradesh. The project was commissioned in March 2009.

Power generated by the project is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.95 per kWh
Expiry	40 Years
Free Power	0% for first 15 years, 10% from 16 <sup>th</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	5.00	5.00
CUF [%]	67.12%	67.12%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.59	0.59
Saleable energy [MkWh]	28.81	28.81
Tariff [INR/kWh]	2.95	2.95
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	84.99	84.99
<b>Expenses</b>		
O&M expenses [INR Mn]	26.84	27.64
Other expenses [INR Mn]		
Total expenses [INR Mn]	26.84	27.64
EBITDA [INR Mn]	58.15	57.35
EBITDA margin [%]	68.42%	67.48%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with HPSEB and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with

rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Tarela Power Limited

### Project overview

Tarela Power Limited ("Taraila III") is a 5.0 MW hydro project on Tarailai khad, a tributary of Baira river in the district Chamba of Himachal Pradesh. The project was commissioned in June 2011.

Power generated by the project is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.95 per kWh
Expiry	40 Years
Free Power	0% for first 12 years, 12% from 13 <sup>th</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	5.00	5.00
CUF [%]	66.21%	66.21%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.58	0.58
Saleable energy [MkWh]	28.42	28.42
Tariff [INR/kWh]	2.95	2.95
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	83.84	83.84
<b>Expenses</b>		
O&M expenses [INR Mn]	20.59	21.21
Other expenses [INR Mn]		
Total expenses [INR Mn]	20.59	21.21
EBITDA [INR Mn]	63.25	62.63
EBITDA margin [%]	75.44%	74.70%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with HPSEB and noted that they are in agreement.

- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Tejassarnika Hydro Energies Private Limited

### Project overview

Tejassarnika Hydro Energies Private Limited ("Upper Joiner") is a 12.0 MW hydro project on Joiner Nalla, a tributary of Suil river in the district Chamba of Himachal Pradesh. The project was commissioned in June 2011.

Power generated by the projects is sold to Himachal Pradesh State Electricity Board. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	12 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff Basis	APPC + REC
PPA Period	1st April 2012 to 31st March 2015 (Extended upto 31 <sup>st</sup> March 2018)
Free Power	15% for first 12 years, 21% from 13 <sup>th</sup> to 30 <sup>th</sup> Year, 33% from 31 <sup>st</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	12.00	12.00
CUF [%]	42.35%	42.35%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	7.43	7.43
Saleable energy [MkWh]	37.08	37.08
Tariff [INR/kWh]	3.50	3.50
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	129.79	129.79
<b>Expenses</b>		
O&M expenses [INR Mn]	60.07	61.87
Other expenses [INR Mn]		
Total expenses [INR Mn]	60.07	61.87
EBITDA [INR Mn]	69.72	67.92
EBITDA margin [%]	53.72%	52.33%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.

- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the Average Pooled Power Purchase Cost (APPC) provided in the Himachal Pradesh Electricity Regulation Commission (HPERC) APPC order for FY 17-18 and noted no differences. The same tariff has been considered for FY 18-19.
- For FY 18 and FY 19, Management has represented that the annual REC income is expected to be Rs. 37.08 Mn. We compared the price of REC in the model and the prevailing REC regulation and noted that the price of REC considered in the model is in agreement with the prevailing floor price of REC provided by Central Electricity Regulatory Commission (CERC) order dated 30<sup>th</sup> March 2017.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## AT Hydro Private Limited

### Project overview

AT Hydro Private Limited ("Upper Taraila") is a 5.0 MW hydro project on Taraila khad, a tributary of Baira river in the district Chamba of Himachal Pradesh. The project was commissioned in September 2009.

Power generated by the project is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.95 per kWh
Expiry	40 Years
Free Power	0% for first 15 years, 10% from 16 <sup>th</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	5.00	5.00
CUF [%]	63.93%	63.93%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.56	0.56
Saleable energy [MkWh]	27.44	27.44
Tariff [INR/kWh]	2.95	2.95
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	80.95	80.95
<b>Expenses</b>		
O&M expenses [INR Mn]	21.78	22.44
Other expenses [INR Mn]		
Total expenses [INR Mn]	21.78	22.44
EBITDA [INR Mn]	59.17	58.51
EBITDA margin [%]	73.09%	72.28%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with HPSEB and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### Him Kailash Hydro Power Private Limited

#### Project overview

Him Kailash Hydro Power Private Limited ("Sahu") is a 5.0 MW hydro project on Sahu khad, a tributary of Ravi river in the district Chamba of Himachal Pradesh. The project was commissioned in April 2008.

Power generated by the project is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.50 per kWh
Expiry	40 Years
Free Power	0% for first 15 years, 10% from 16 <sup>th</sup> Year onwards

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	5.00	5.00
CUF [%]	64.00%	64.00%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.56	0.56
Saleable energy [MkWh]	27.47	27.47
Tariff [INR/kWh]	2.50	2.50
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	68.68	68.68
<b>Expenses</b>		
O&M expenses [INR Mn]	19.37	19.95
Other expenses [INR Mn]		
Total expenses [INR Mn]	19.37	19.95

Parameter	FY 2018E	FY 2019E
EBITDA [INR Mn]	49.31	48.73
EBITDA margin [%]	71.80%	70.95%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence Report prepared by Tractebel Engineering Private Limited and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with HPSEB and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Sri Sai Krishna Hydro Energies Private Limited

### Project overview

Sri Sai Krishna Hydro Energies Private Limited ("Luni II and III") is a 10.0 MW hydro project on Luni Khad, a tributary of Binwa river in the district Kangra of Himachal Pradesh. The project was commissioned in November 2009.

Power generated by the project is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	10 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.95 per kWh
Expiry	40 Years
Free Power	0% for first 15 years, 10% from 16 <sup>th</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	10.00	10.00
CUF [%]	50.31%	50.31%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.88	0.88
Saleable energy [MkWh]	43.19	43.19
Tariff [INR/kWh]	2.95	2.95
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	127.41	127.41

Parameter	FY 2018E	FY 2019E
<b>Expenses</b>		
O&M expenses [INR Mn]	31.80	32.76
Other expenses [INR Mn]		
Total expenses [INR Mn]	31.80	32.76
EBITDA [INR Mn]	95.60	94.65
EBITDA margin [%]	75.04%	74.29%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence of 4 small hydro-electric projects in Himachal Pradesh report prepared by Entura Hydro Tasmania India Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with HPSEB and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### Anubhav Hydel Private Limited

#### Project overview

Anubhav Hydel Private Limited ("Binua Parai") is a 5.0 MW hydro project on Parai khad, a tributary of Binwa river in the district Kangra of Himachal Pradesh. The project was commissioned in May 2011.

Power generated by the project is sold to Himachal Pradesh State Electricity Board (HPSEB) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	5 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff	Rs 2.95 per kWh
Expiry	40 Years
Free Power	0% for first 12 years, 12% from 13 <sup>th</sup> Year onwards

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	5.00	5.00
CUF [%]	70.30%	70.30%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	0.62	0.62



Parameter	FY 2018E	FY 2019E
Saleable energy [MkWh]	30.18	30.18
Tariff [INR/kWh]	2.95	2.95
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	89.02	89.02
<b>Expenses</b>		
O&M expenses [INR Mn]	14.88	15.32
Other expenses [INR Mn]		
Total expenses [INR Mn]	14.88	15.32
EBITDA [INR Mn]	74.14	73.69
EBITDA margin [%]	83.29%	82.79%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence of 4 small hydro-electric projects in Himachal Pradesh report prepared by Entura Hydro Tasmania India Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with HPSEB and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Ranga Raju Warehousing Private Limited

### Project overview

Ranga Raju Warehousing Private Limited ("Sumez") is a 14.0 MW hydro project on Sechi and Mohail khad, a tributary of Satluj river in the district Shimla of Himachal Pradesh. The project was commissioned in March 2012.

Power generated by the projects is sold to Himachal Pradesh State Electricity Board. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	14 MW
Procurer	Himachal Pradesh State Electricity Board (HPSEB)
Tariff Basis	APPC + REC
PPA Period	1st April 2012 to 31st March 2015 (Extended upto 31 <sup>st</sup> March 2018)
Free Power	15% for first 12 years, 21% from 13 <sup>th</sup> to 30 <sup>th</sup> Year, 33% from 31 <sup>st</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	14.00	14.00
CUF [%]	46.64%	46.64%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	9.55	9.55
Saleable energy [MkWh]	47.65	47.65
Tariff [INR/kWh]	3.50	3.50
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	166.77	166.77
<b>Expenses</b>		
O&M expenses [INR Mn]	41.11	42.34
Other expenses [INR Mn]		
Total expenses [INR Mn]	41.11	42.34
EBITDA [INR Mn]	125.66	124.43
EBITDA margin [%]	75.35%	74.61%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by HPSEB and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence of 4 small hydro-electric projects in Himachal Pradesh report prepared by Entura Hydro Tasmania India Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the Average Pooled Power Purchase Cost (APPC) provided in the Himachal Pradesh Electricity Regulation Commission (HPERC) APPC order for FY 17-18 and noted no differences. The PPA has an expiry date of 31 March 2018. The Management represented that the PPA shall be extended on similar terms and considered same tariff for FY 18-19.
- For FY 18 and FY 19, Management has represented that the annual REC income is expected to be Rs. 47.61 Mn. We compared the price of REC in the model and the prevailing REC regulation and noted that the price of REC considered in the model is in agreement with the prevailing floor price of REC provided by Central Electricity Regulatory Commission (CERC) order dated 30<sup>th</sup> March 2017.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

### Greenko Budhil Hydro Power Pvt. Ltd

#### Project overview

Greenko Budhil Hydro Power Pvt. Ltd ("Budhil") is a 70 MW hydro project across Budhil stream, a major tributary of Ravi river in Chamba district of Himachal Pradesh. The project was commissioned in May 2012.

Power generated by the project is sold to Uttarakhand Power Corporation Limited (UPCL) through a long term PPA with tenure of 40 years. Project uses the in-house capability for O&M of hydro power projects.

Parameter	Value
Installed Capacity	70 MW
Procurer	Uttarakhand Power Corporation Limited (UPCL)
Tariff	As determined by Uttarakhand Electricity Regulatory Commission (UERC)
Expiry	36 Years
Free Power	12% for first 12 years, 18% from 13 <sup>th</sup> Year onwards

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	70.00	70.00
CUF [%]	49.40%	49.40%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	41.68	41.68
Saleable energy [MkWh]	261.24	261.24
Tariff [INR/kWh]	3.76	3.68
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	981.71	962.43
<b>Expenses</b>		
O&M expenses [INR Mn]	186.38	191.97
Other expenses [INR Mn]		
Total expenses [INR Mn]	186.38	191.97
EBITDA [INR Mn]	795.33	770.46
EBITDA margin [%]	81.01%	80.05%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by Central Electricity Authority and noted no differences.
- We compared the PLF in the model with the estimates given in the Due Diligence of 3 Hydro-electric projects in Himachal Pradesh prepared by Entura Hydro Tasmania India Pvt Ltd and noted no differences.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in Uttarakhand Electricity Regulatory Commission (UERC) tariff order on Budhil dated 30<sup>th</sup> November 2016 and noted that they are in agreement.
- The Project uses the in-house capability for O&M of hydro power projects. We have compared the expenses projected by the Restricted Group with the Management representation and noted that they are in agreement. We compared the escalation rate for O&M expenses considered in the model with rate provided in Management representation and noted that they are in agreement. Management represented that these numbers are based on their experience of operating similar projects.

## Operational Wind Power Projects

### Ratnagiri Wind Power Projects Private Limited

#### Project overview

Ratnagiri Wind Power Projects Private Limited ("Ratnagiri Wind") is a wind power project located in the Satara district of Maharashtra. Capacity of 65.6 MW of first phase ("Ratnagiri-P1") of Ratnagiri Wind has been operational since August 2013. Ratnagiri-P1 consists of 41 1.6 MW GE turbines.

The second phase ("Ratnagiri-P2") of 36 MW has been operational since October 2015. Ratnagiri-P2 consists of 20 1.8 MW GE turbines.

Energy generated from Ratnagiri Wind is sold to Maharashtra State Electricity Distribution Company Ltd MSEDCL under a FIT PPA with tenure of 13 years.

#### PPA Details for Phase 1

Capacity	65.6 MW
Procurer	Maharashtra State Electricity Distribution Company Ltd (MSEDCL)
Tariff	Rs. 5.75 per kWh
Expiry	13 years from COD

#### PPA Details for Phase 2

Capacity	36 MW
Procurer	Maharashtra State Electricity Distribution Company Ltd (MSEDCL)
Tariff	Rs. 5.70 per kWh
Expiry	13 years from COD

Ratnagiri wind has entered into an O&M agreement with GE India Industrial Private Limited effective from the day of signing of the O&M agreement. In addition there are taxes, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	101.60	101.60
CUF [%]	24.11%	24.11%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	4.29	4.29
Saleable energy [MkWh]	210.29	210.29
Tariff [INR/kWh]	5.73	5.73
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	1,205.53	1,205.53
GBI Income [INR Mn]	105.15	105.15
Total Revenue [INR Mn]	1,310.68	1,310.68
<b>Expenses</b>		
O&M expenses [INR Mn]	126.06	132.36
Other expenses [INR Mn]	99.42	102.40
Total expenses [INR Mn]	225.48	234.76
EBITDA [INR Mn]	1,085.20	1,075.92
EBITDA margin [%]	82.80%	82.09%

## Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by MSEDCL. For Phase 1 capacity of 65.6 MW, we noted that capacity of the project and capacity in commissioning certificate are in agreement. Phase 2 of the project consists of 20 GE Turbines. We obtained the Commissioning certificate and noted that the capacity of each turbine is 1.6 MW. Management represented that the actual Turbine capacity of 1.8 MW due to capacity enhancement. We compared the capacity in model and Management representation and noted no differences.
- We compared the PLF in the model for wind projects with the P75 estimates given in Estimation of the Wind resource and energy yield report prepared by AWS Truepower LLC and noted that they are in agreement.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with MSEDCL and noted that they are in agreement.
- We obtained GBI registration letter of IREDA and observed that the project is registered with IREDA. For FY 18 and FY 19, we recalculated the revenue from GBI and observed that it is in agreement to the GBI guidelines.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.
- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

## Rayala Wind Power Company Private Limited

### Project overview

Rayala Wind Power Company Private Limited ("Rayala Wind") is a 51.2 MW wind power project located in the Anantpur district of Andhra Pradesh. The project consists of following phases

- The first phase ("Rayala-P1A") of Rayala Wind of 51.2 MW has been operational since December 2013. Rayala-P1A consists of 32 1.6 MW GE turbines.
- Phase 1B of 50.0 MW capacity ("Rayala-P1B") has been operational since March 2014. Rayala-P1B consists of 25 2.0 MW Gamesa turbines.
- Phase 2A of 50.0 MW capacity ("Rayala-P2A") has been operational since May 2015. Rayala-P2A consists of 25 2.0 MW Gamesa turbines.

Energy generated from Rayala wind project is sold to Central Power Distribution Company of Andhra Pradesh Limited under a FIT PPA with tenure of 25 years

### PPA Details for Phase 1 A and 1B

Capacity	101.2 MW
Procurer	Central Power Distribution Company of Andhra Pradesh Limited
Tariff	Rs. 4.70 per kWh
Expiry	25 years from COD

### PPA Details for Phase 2 A

Capacity	50 MW
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## PPA Details for Phase 2 A

Procurer	Central Power Distribution Company of Andhra Pradesh Limited
Tariff	Rs. 4.70 per kWh
Expiry	25 years from COD

Rayala 1A has entered into an O&M agreement with GE India Industrial Private Limited effective from the day of signing of the O&M agreement. Rayala 1B and Rayala 2A has entered into to O&M agreement with Gamesa Wind Turbines Private Limited. In addition there are applicable taxes, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

## Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	159.20	159.20
CUF [%]	30.66%	30.66%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	8.55	8.55
Saleable energy [MkWh]	418.98	418.98
Tariff [INR/kWh]	4.70	4.70
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	1,969.20	1,969.20
GBI Income [INR Mn]	209.49	209.49
Total Revenue [INR Mn]	2,178.69	2,178.69
<b>Expenses</b>		
O&M expenses [INR Mn]	135.13	141.89
Other expenses [INR Mn]	173.68	180.23
Total expenses [INR Mn]	308.81	322.12
EBITDA [INR Mn]	1,869.89	1,856.58
EBITDA margin [%]	85.83%	85.22%

## Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by Central Power Distribution Company of Andhra Pradesh Limited and noted no differences.
- We compared the PLF in the model for wind projects with the P75 estimates given in Energy Production Estimates report prepared by AWS Truepower LLC and noted that they are in agreement.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the PPA with Central Power Distribution Company of Andhra Pradesh Limited and noted that they are in agreement.
- We obtained GBI registration letter of IREDA and observed that the project is registered with IREDA. For FY 18 and FY 19, we recalculated the revenue from GBI and observed that it is in agreement to the GBI guidelines.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.

- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

## Matrix Power Wind Private Limited

### Project overview

Matrix Power Wind Private Limited ("Matrix") is a wind power project located in the Bijapur district of Karnataka. The capacity of Matrix is 15 MW which has been operational since November 2013. Matrix consists of 10 1.5 MW ReGen turbines.

Energy generated from Matrix is sold via direct sale to end consumers under captive route.

### PPA Details

Capacity	15 MW
Procurer	Direct sale to end consumers
Tariff	Discount to Bangalore Electricity Supply Company Ltd. (BESCOM) energy charge and Fuel Adjustment Charge (FAC) for Industrial / Commercial consumers as applicable to respective consumers
Expiry	11 Yrs

Matrix has entered in to an O&M agreement with ReGen Powertech Private Limited effective from the day of COD of plant. In addition there are applicable taxes, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	15.00	15.00
CUF [%]	31.90%	31.90%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	3.71	3.71
Saleable energy [MkWh]	38.20	38.20
Tariff [INR/kWh]	8.12	8.20
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	310.21	313.31
GBI Income [INR Mn]	0.00	0.00
Total Revenue [INR Mn]	310.21	313.31
<b>Expenses</b>		
O&M expenses [INR Mn]	15.79	16.58
Other expenses [INR Mn]	26.94	27.75
Total expenses [INR Mn]	42.74	44.34
EBITDA [INR Mn]	267.47	268.97
EBITDA margin [%]	86.22%	85.85%

**Observations**

- We compared the capacity and COD of the project with the Commissioning certificate issued by Hubli Electricity Supply Company Limited (HESCOM) and noted no differences.
- We compared the PLF in the model for wind projects with the P75 estimates given in Energy Yield Assessment report prepared by AWS Truepower LLC and noted that they are in agreement.
- Auxiliary consumption is in line with industry standards.
- The Electricity Rules, 2005 specify that for projects to be considered as captive generating plant, the consumers need to have at least 26% of equity in the project and consume at least 51% of the power on an annual basis. Further, the captive users need to consume power in proportion to their shares in ownership of the power plant within a variation not exceeding 10%. We examined the proportion of contracted energy as per the PPAs and the proportion of the shareholding as per the SHAs and noted that the proportions are in agreement with the requirements for 26% equity and at least 51% consumption of power for captive generating stations under the Electricity Rules, 2005. Further management represented that equity shareholding and the proportionate consumption of power from the plant will be maintained to ensure group captive generating plant status.
- We compared the net tariff applicable for the projects for existing customers based on the tariff category & discount mentioned in the PPA signed, wheeling charges and end user tariff in Karnataka Electricity Regulatory Commission (KERC) Tariff order for FY 2017-18, wheeling and banking charges as per the WBA order, with the tariff assumed in model and found no differences. As power is sold under captive mode, cross subsidy surcharge is not applicable. The escalation of 1% considered is conservative as compared to the historical trend of tariff hikes for HT Industrial and HT Commercial consumers.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.
- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

**Mangalore Energies Private Limited**

**Project overview**

Mangalore Energies Private Limited (“Mangalore”) is a wind power project located in the Bijapur district of Karnataka. The capacity of the project is 15 MW. The project consists of 10 1.5 MW ReGen turbines.

Energy generated from Mangalore is sold via direct sale to end consumers under captive route.

**PPA Details**

Capacity	15 MW
Procurer	Direct sale to end consumers
Tariff	Discount to Bangalore Electricity Supply Company Ltd. (BESCOM) energy charge and Fuel Adjustment Charge (FAC) for Industrial / Commercial consumers as applicable to respective consumers
Expiry	10-12 Yrs

The Project has entered in to an O&M agreement with ReGen Powertech Private Limited effective from the day of COD of plant. In addition there are applicable taxes, consumables, insurance and administration



expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	15.00	15.00
CUF [%]	30.60%	30.60%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	3.56	3.56
Saleable energy [MkWh]	36.65	36.65
Tariff [INR/kWh]	8.56	8.65
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	313.69	316.83
GBI Income [INR Mn]	0.00	0.00
Total Revenue [INR Mn]	313.69	316.83
<b>Expenses</b>		
O&M expenses [INR Mn]	16.01	16.81
Other expenses [INR Mn]	6.18	6.37
Total expenses [INR Mn]	22.19	23.17
EBITDA [INR Mn]	291.50	293.65
EBITDA margin [%]	92.93%	92.69%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by Hubli Electricity Supply Company Limited (HESCOM) and noted no differences.
- We compared the PLF in the model for wind projects with the P75 estimates given in WRA report prepared by AWS Truepower LLC and noted that they are in agreement.
- Auxiliary consumption is in line with industry standards.
- The Electricity Rules, 2005 specify that for projects to be considered as captive generating plant, the consumers need to have at least 26% of equity in the project and consume at least 51% of the power on an annual basis. Further, the captive users need to consume power in proportion to their shares in ownership of the power plant within a variation not exceeding 10%. We examined the proportion of contracted energy as per the PPAs and the proportion of the shareholding as per the SHAs and noted that the proportions are in agreement with the requirements for 26% equity and at least 51% consumption of power for captive generating stations under the Electricity Rules, 2005. Further management represented that equity shareholding and the proportionate consumption of power from the plant will be maintained to ensure group captive generating plant status.
- We compared the net tariff applicable for the projects for existing customers based on the tariff category & discount mentioned in the PPA signed, wheeling charges and end user tariff in Karnataka Electricity Regulatory Commission (KERC) Tariff order for FY 2017-18, wheeling and banking charges as per the WBA order, with the tariff assumed in model and found no differences. As power is sold under captive mode, cross subsidy surcharge is not applicable. The escalation of 1% considered is conservative as compared to the historical trend of tariff hikes for HT Industrial and HT Commercial consumers.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement

does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.

- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

## Fortune Five Hydel Projects Private Limited

### Project overview

Fortune Five Hydel Projects Private Limited ("Fortune Five") is a wind power project located in the Bijapur district of Karnataka. The project consists of the following phases

- Phase 1A capacity of 51.2 MW ("Fortune Five-P1A") of the Fortune Five has been operational since November 2013. Fortune Five-P1A consists of 32 1.6 MW GE XLE turbines.
- Phase 1B capacity of 50 MW ("Fortune Five-P1B") of the Fortune Five has been operational since June 2014. Fortune Five-P1B consists of 25 2 MW Gamesa turbines.

Energy generated from Fortune Five is sold to end consumers (Industrial and commercial) under direct sale route

### PPA Details

Capacity	101.2 MW
Procurer	Direct sale to end consumers
Tariff	Discount to Bangalore Electricity Supply Company Ltd. (BESCOM) energy charge and Fuel Adjustment Charge (FAC) for Industrial / Commercial consumers as applicable to respective consumers

Fortune Five-P1A has entered to an O&M agreement with GE India Industrial Private Limited effective from the day of COD of plant. Fortune Five-P1B has entered into a 5 year O&M agreement with Gamesa Wind Turbines Private Limited effective from commissioning of first WTG of the project. In addition there are applicable taxes, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	101.20	101.20
CUF [%]	30.30%	30.30%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	23.80	23.80
Saleable energy [MkWh]	244.81	244.81
Tariff [INR/kWh]	5.02	5.07
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	1,228.97	1,241.26
GBI Income [INR Mn]	0.00	0.00
Total Revenue [INR Mn]	1,228.97	1,241.26
<b>Expenses</b>		
O&M expenses [INR Mn]	128.20	135.81
Other expenses [INR Mn]	75.96	78.24
Total expenses [INR Mn]	204.16	214.05

Parameter	FY 2018E	FY 2019E
EBITDA [INR Mn]	1,024.81	1,027.21
EBITDA margin [%]	83.39%	82.76%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificate issued by Hubli Electricity Supply Company Limited (HESCOM) and noted no differences.
- We compared the PLF in the model for wind projects with the P75 estimates given in Assessment of the energy production report prepared by Garrad Hassan India Private Ltd and noted that they are in agreement
- Auxiliary consumption is in line with industry standards.
- Management represented that the project sells energy to consumers through a mix of large long term PPAs and short term sale basis. We compared the tariff of these large PPAs which represented 42% of total energy sold. The tariff for these PPAs are higher than with tariff considered by Management for the project. Management represented that they would be able to realise Rs 5.02/kWh for FY 2017-18 and Rs 5.07/kWh for FY 2018-19. We compared the tariffs considered in the model for the entire project and tariff represented by the management and noted no differences.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.
- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

### Poly Solar Parks Private Limited

#### Project overview

Poly Solar Parks Private Limited ("Poly") is a 24 MW wind power project in Anantpur district of Andhra Pradesh. The project was commissioned in July 2016

Power generated by the project is sold to Southern Power Distribution Company of A.P. Limited through a long term PPA with tenure of 25 years.

Parameter	Value
Installed Capacity	24 MW
Procurer	Southern Power Distribution Company of A.P. Limited
Tariff	Rs 4.83 per kWh + Income Tax/MAT
Expiry	25 Years

The Project has entered in to a 20 year O&M agreement with Gamesa Renewable Private Limited effective from the day of COD of plant. In addition there are applicable taxes, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

#### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	24.00	24.00
CUF [%]	32.70%	32.70%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	1.37	1.37
Saleable energy [MkWh]	67.37	67.37
Tariff [INR/kWh]	4.90	4.90
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	330.13	330.13
GBI Income [INR Mn]	33.69	33.69
Total Revenue [INR Mn]	363.82	363.82
<b>Expenses</b>		
O&M expenses [INR Mn]	0.00	21.94
Other expenses [INR Mn]	11.12	11.46
Total expenses [INR Mn]	11.12	33.40
EBITDA [INR Mn]	352.69	330.42
EBITDA margin [%]	96.94%	90.82%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by Southern Power Distribution Company of A.P. Limited and noted no differences.
- We compared the PLF in the model with the estimates given in the Energy assessment report prepared by 3TIER R&D India Private Limited and noted they are in line agreement.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with Southern Power Distribution Company of A.P. Limited and noted that they are in agreement.
- We obtained snapshots of IREDA website registration and observed that the project is registered with IREDA. For FY 18 and FY 19, we recalculated the revenue from GBI and observed that it is in agreement to the GBI guidelines.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.
- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

### Jed Solar Parks Private Limited

#### Project overview

Jed Solar Parks Private Limited ("Jed") is a 24 MW wind power project in Anantpur district of Andhra Pradesh. The project was commissioned in July 2016

Power generated by the project is sold to Southern Power Distribution Company of A.P. Limited through a long term PPA with tenure of 25 years.

Parameter	Value
Installed Capacity	24 MW

Parameter	Value
Procurer	Southern Power Distribution Company of A.P. Limited
Tariff	Rs 4.83 per kWh + Income Tax/MAT
Expiry	25 Years

The Project has entered in to a 20 year O&M agreement with Gamesa Renewable Private Limited effective from the day of COD of plant. In addition there are applicable taxes, consumables, insurance and administration expenses. We inquired of Management as to source of these other O&M expenses and were informed that it was based on management internal information and their experience in other similar operating projects.

### Project level projections

Key outputs from the EBITDA Projections model are as follows:

Parameter	FY 2018E	FY 2019E
<b>Generation</b>		
Capacity [MW]	24.00	24.00
CUF [%]	32.70%	32.70%
Aux/Tx Loss/Wheeling/Royalty [MkWh]	1.37	1.37
Saleable energy [MkWh]	67.37	67.37
Tariff [INR/kWh]	4.90	4.90
<b>Revenues</b>		
Revenue from sale of power [INR Mn]	330.13	330.13
GBI Income [INR Mn]	33.69	33.69
Total Revenue [INR Mn]	363.82	363.82
<b>Expenses</b>		
O&M expenses [INR Mn]	0.00	21.94
Other expenses [INR Mn]	11.12	11.46
Total expenses [INR Mn]	11.12	33.40
EBITDA [INR Mn]	352.69	330.42
EBITDA margin [%]	96.94%	90.82%

### Observations

- We compared the capacity and COD of the project with the Commissioning certificates issued by Southern Power Distribution Company of A.P. Limited and noted no differences.
- We compared the PLF in the model with the estimates given in the Energy assessment report prepared by 3TIER R&D India Private Limited and noted that they are in agreement.
- Auxiliary consumption is in line with industry standards.
- We compared the tariff in the model and the tariff provided in PPA with Southern Power Distribution Company of A.P. Limited and noted that they are in agreement.
- We obtained snapshots of IREDA website registration and observed that the project is registered with IREDA. For FY 18 and FY 19, we recalculated the revenue from GBI and observed that it is in agreement to the GBI guidelines.
- We compared the O&M price considered in the model with the price mentioned in the O&M contract and noted that they are in agreement. We noted that in calculation of O&M expenses in the model, taxes have been considered in addition to the O&M price, as O&M price mentioned in the O&M agreement does not include applicable taxes. We compared the escalation rate for O&M expense considered in the model with the rate in the O&M agreement and found no difference.

- We inquired of Management about other expenses and were informed that they are based on internal estimates and their experience in other projects. We compared the escalation rate with Management representation and noted that they are in agreement.

# Annexure 1: Management Representation

# GREENKO DUTCH B.V.

Hoofdweg 52 A, 3067 GH, Rotterdam,  
The Netherlands

Date: 8 July 2017

To,  
Deloitte Touche Tohmatsu India LLP (DTTILLP)  
12, Dr. Annie Besant Road,  
Opp. Shivsagar Estate,  
Worli, Mumbai – 400018

**Subject: Management representation on some of the assumptions used in the financial model for projecting EBITDA for FY 2017-18 and FY 2018-19 of the Restricted Group of projects of Greenko Dutch B.V.**

Dear Sirs

This representation letter is provided in connection with your engagement on "Preparation of a consultant report in connection with Greenko Dutch B.V. proposing to raise high yield bond by public offer in the Singapore market". Few of the assumptions provided in the financial model are based on certain assumptions which do not have specific supporting documents.

Accordingly, Greenko Dutch B.V. makes the representation on such assumptions as listed below, which are true to the best of our knowledge and belief.

1. AMR and Rithwik projects are on the same river and share the same hydrological resources. The combined generation of AMR and Rithwik is same as the combined P75 estimate provided in Due Diligence Report prepared by Tractebel Engineering Private Limited for both the plants. PLF for AMR is higher than P75 estimate provided in Tractebel report. Hence, PLF considered for Rithwik is lower than P75 estimate provided in the Tractebel report. This has been suggested by the company based on the historical performance.

Project	CUF - FY 18	CUF - FY 19
AMR	38.00%	38.00%
Rithwik	26.20%	26.20%

*Handwritten signature/initials in blue ink.*



## GREENKO DUTCH B.V.

Hoofdweg 52 A, 3067 GH, Rotterdam,  
The Netherlands

2. The Tariff for AMR and Fortune five projects are assumed as given below

Project	Tariff - FY18	Tariff - FY19
	Rs per kWh	Rs per kWh
AMR	5.04	5.09
Fortune Five	5.02	5.07

3. The total O&M expense for all hydro and solar projects are assumed as given below

Project	O&M - FY 18	O&M- FY 19
	[INR Mn]	[INR Mn]
Hydro- All Projects	654.98	674.63
Solar - All Projects	296.81	311.65
Total (Solar and Hydro)	951.79	986.28

4. The total other O&M expense for all wind projects are assumed as given below. The relevant service tax applicable is considered for all wind projects

Project	Other O&M - FY18	Other O&M - FY19
	[INR Mn]	[INR Mn]
Total - Wind Projects	404.42	417.90

5. The installed capacity of Rithwik and Ratnagiri Wind projects is given below

Project	Capacity
	[MW]
Rithwik	24.75
Ratnagiri Wind	101.60

## GREENKO DUTCH B.V.

Hoofdweg 52 A, 3067 GH, Rotterdam,  
The Netherlands

6. The PPA validity for Upper Joiner and Sumez projects which are selling power under APPC to state utilities will get extended till FY 2018-19 and Tariff of FY 2018-19 to be considered the same as FY 2017-18 on a conservative basis. The REC income for these projects are assumed as given below

Project	REC Income - FY18	REC Income - FY19
	[INR Mn]	[INR Mn]
Upper Joiner	37.08	37.08
Sumez	47.65	47.65

7. For Mangalore and Matrix power projects, equity shareholding and the proportionate consumption of power from the plant will be maintained during FY 2017-18 and FY 2018-19 to ensure group captive generating plant status

Yours Faithfully

Vasudeva Rao Kaipra  
Group CFO  
Greenko Dutch B.V.



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