

**Gold standard for the global goals
Monitoring report**



June 2017, version 1

Title of the project	Wind Power Project in Tinwari, Rajasthan
Gold Standard project id	GS6004
Version number of the monitoring report	1.1
Completion date of the monitoring report	07/03/2020
Date of project design certification	19/03/2018 (GS Registration Date)
Start date of crediting period	19/03/2016 (retroactive GS crediting start date)
Duration of this monitoring period	19/03/2016 to 31/12/2018; Inclusive of first & last dates of Monitoring Period
Duration of previous monitoring period	Note Applicable
Project representative(s)	Wind World (India) Limited (India) ACT Commodities B.V. (Netherland) First Climate Markets A.G. (Germany)
Host Country	India
Certification pathway (activity certification/impact certification)	Activity Certification
SDG Contributions targeted (as per approved PDD)	1 – SDG 3 : Good Health And Well-Being 2- SDG 7 : Affordable and Clean Energy 3 - SDG 8 Decent Work and Economic Growth 4 - SDG 13 Climate Action
Gold Standard statement/product certification sought (GSVER/ADALYs/RECs etc.)	GS CERs
Selected methodology(ies)	ACM0002, version 12.3.0 (“Consolidated baseline methodology for grid-connected electricity generation from renewable sources”)
Estimated amount of annual average certified SDG impact (as per approved PDD)	71,746 tonnes of CO ₂ e
Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period	90,406 tonnes of CO ₂ e ¹

¹ The official date of GS Registration of the project is 19th March 2018. Hence as per retroactive crediting provision, CERs can be labelled for the period 19th March 2016 onwards. However, as the generation data are compiled on monthly basis and CERs accounted in the CDM MR are also monthly basis, hence for being conservative, PP has apportioned generation data starting from 19th March 2016 in ER sheet. The CERs are already issued from CDM Monitoring & Verification period of 01 Mar 2013 - 31 Jul 2017 & CERs issuance from the period 01 Aug 2017 - 31 Dec 2018 is currently under Awaiting issuance request. Hence, the present first GS Monitoring & Verification period has been considered from 19 Mar 2016 to 31 December 2018.

SECTION A. Description of project

A.1. Purpose and general description of project

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Wind world (India) Limited (hereafter referred as "WWIL") has developed 20MW wind power project at Jodhpur district of Rajasthan, India. Wind World (India) Limited ("Wind World") is the equipment supplier and the operations and maintenance contractor for the Project. There are 25 Wind Energy Convertors ("WEC's") of Wind World E-53 make with rated capacity 800 KW each. The generated electricity is supplied to Electricity Distribution Company (DISCOM) under a long-term power purchase agreement (PPA). The expected operational lifetime of the project is for 20 years.

The first machine under the project activity was commissioned on 30/09/2011 and last machine under the project activity was commissioned on 09/11/2011. Project activity has got registered under CDM on 25/07/2012 & fixed crediting period started from 01/08/2012. The expected operational lifetime of the project is for 20 years.

Details of previous verification period & issuance are as follows under CDM:

Issuance no.	Period covered	CER issued	
First Issuance	01/08/2012 to 28/02/2013 (Inclusive of both days)	12,777	(8258 from CP1)
Second Issuance	(01/03/2013 to 31/07/2017; Inclusive of both dates)	1,26,076	Issued
Third Issuance	(01 Aug 2017 - 31 Dec 2018; Inclusive of both dates)	36,189	Awaiting issuance request

The total emission reductions achieved under current monitoring period (19/03/2016 to 31/12/2018; Inclusive of both dates) are 71,746 tCO_{2e}.

The official date of GS Registration of the project is 19th March 2018. Hence as per retroactive crediting provision, CERs can be labelled for the period 19th March 2016 onwards. However, as the generation data are compiled on monthly basis and CERs accounted in the CDM MR are also monthly basis, hence for being conservative, PP has apportioned generation data starting from 19th March 2016 in ER sheet. The CERs are already issued from CDM Monitoring & Verification period of 01 Mar 2013 - 31 Jul 2017 & CERs issuance from the period 01 Aug 2017 - 31 Dec 2018 is currently under Awaiting issuance request. Hence, the present first GS Monitoring & Verification period has been considered from 19 Mar 2016 to 31 December 2018.

A.2. Location of project

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Host Party(ies); India

Region/State/Province, etc.; Rajasthan State

City/Town/Community, etc.; Salodi, Chensingh Nagar, Bari, Malunga, Bada Kotacha, Digadi Dhani, Balva & Beru villages of Jodhpur district

Physical/ Geographical location; The detailed individual WECs location numbers and coordinates of project activity are provided below:

S.No.	WEC Loc No.	Village	Latitude (N)	Longitude (E)
1	9	SALODI	26.42828	72.80512

2	48	Chain singh Nagar/Balrva	26.45382	72.87220
3	49	Chain singh Nagar/Balrva	26.45383	72.86990
4	50	Chain singh Nagar/Balrva	26.45661	72.87060
5	51	Chain singh Nagar/Balrva	26.45580	72.86707
6	53	Chain singh Nagar/Balrva	26.45745	72.86628
7	82	Bari	26.47798	72.83214
8	83	Bari	26.47596	72.82855
9	112	Malunga	26.45374	72.77689
10	113	Malunga	26.45609	72.77677
11	114	Malunga	26.45756	72.77531
12	115	Malunga	26.46012	72.77523
13	116	Malunga	26.45891	72.77188
14	129	Digadi Dhani (Malunga)	26.49696	72.79726
15	130	Bada Kotacha	26.50309	72.80070
16	131	Bada Kotacha	26.50395	72.79868
17	133	Bada Kotacha	26.50955	72.79788
18	134	Bada Kotacha	26.51170	72.79732
19	136	Digadi Dhani (Malunga)	26.50604	72.79201
20	137	Digadi Dhani (Malunga)	26.50539	72.79512
21	501	Chain singh Nagar/Balrva	26.45836	72.86488
22	504	Beru	26.42481	72.87424
23	515	Digadi Dhani (Malunga)	26.50039	72.79619
24	516	Digadi Dhani (Malunga)	26.50245	72.79325
25	517	Digadi Dhani (Malunga)	26.50828	72.79092

A.3. Reference of applied methodology

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Title: "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"

Reference: Approved consolidated baseline methodology ACM0002 (Version 12.3.0)

ACM0002 draws upon the following tools which have been used in the PDD:

- Tool to calculate the emission factor for an electricity system – Version 02.2.1²
- Tool for the demonstration and assessment of additionality – Version 05.2³

A.4. Crediting period of project

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Type of crediting period : Fixed
 Start date of crediting period : 19/03/2016
 Length of crediting period : 31/07/2022 (fixed crediting period, to be ended at the end of CDM crediting period)

² <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v2.2.1.pdf>

³ <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v5.2.pdf>

SECTION B. Implementation of project

B.1. Description of implemented project

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The project activity consists of 25 machines (800 kW each) of WWIL make E-53. The commissioning dates for all the machines include in the project activity are given in the table below:-

S.No.	WEC Loc No.	Village	Date of Commissioning
1	9	Salodi	30 Sep 2011
2	48	Chain singh Nagar/Balrva	09 Nov 2011
3	49	Chain singh Nagar/Balrva	09 Nov 2011
4	50	Chain singh Nagar/Balrva	09 Nov 2011
5	51	Chain singh Nagar/Balrva	09 Nov 2011
6	53	Chain singh Nagar/Balrva	09 Nov 2011
7	82	Bari	30 Sep 2011
8	83	Bari	30 Sep 2011
9	112	Malunga	09 Nov 2011
10	113	Malunga	09 Nov 2011
11	114	Malunga	09 Nov 2011
12	115	Malunga	09 Nov 2011
13	116	Malunga	09 Nov 2011
14	129	Digadi Dhani (Malunga)	30 Sep 2011
15	130	Bada Kotacha	30 Sep 2011
16	131	Bada Kotacha	30 Sep 2011
17	133	Bada Kotacha	30 Sep 2011
18	134	Bada Kotacha	30 Sep 2011
19	136	Digadi Dhani (Malunga)	30 Sep 2011
20	137	Digadi Dhani (Malunga)	30 Sep 2011
21	501	Chain singh Nagar/Balrva	09 Nov 2011
22	504	Beru	09 Nov 2011
23	515	Digadi Dhani (Malunga)	30 Sep 2011
24	516	Digadi Dhani (Malunga)	30 Sep 2011
25	517	Digadi Dhani (Malunga)	30 Sep 2011

Wind world (India) Limited operation and maintenance activities are ISO 9001:2008 certified. Referring to the data available it can be inferred that there have not been any major special events for any of the machines that are included in the project activity. As a part of regular maintenance the machines are stopped for mechanical and electrical maintenance for few hours annually and for visual inspection for 6 to 7 hours quarterly. Furthermore, the consolidated performance report of project WECs during the monitoring period including the down time, machine availability, grid availability, etc. During the monitoring period there were no events or situations occurred, which may impact the applicability of the methodology.

The WECs generates 3-phase power at 400V, which is stepped up to 33 kV and electricity transmitted to WWIL Sub-station. At WWIL sub-station electricity is step-up to 132 kV. From Wind World substation metering point electricity is further evacuated to the state electricity grid at 132kV. The Project can operate in the frequency range of 47.5–51.5 Hz and in the voltage range of 400 V ± 12.5%. The other salient features of the state-of-art-technology are:-

- Gearless Construction - Rotor & Generator Mounted on same shaft eliminating the Gearbox.
- Variable Pitch functions ensuring maximum energy capture.
- Near Unity Power Factor at all times.
- Minimum drawal (less than 1% of kWh generated) of Reactive Power from the grid.
- No voltage peaks at any time.
- Operating range of the WEC with voltage fluctuation of -20 to +20%.
- Less Wear & Tear since the system eliminates mechanical brake, which are not needed due to low speed generator which runs at maximum speed of 32 rpm and uses Air Brakes.
- Three Independent Braking Systems.
- Generator achieving rated output at only 32 rpm.
- Incorporates lightning protection system, which includes blades.
- Starts generation of power at wind speed of 3 m/s

B.2. Post-registration changes

B.2.1. Temporary deviations from Certified Key Project Information, Project Design Document, Monitoring & Reporting Plan, applied methodology or applied standardized baseline

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Not applicable

B.2.2. Corrections

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Not applicable.

B.2.3. Changes to start date of crediting period

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There are no changes to the start date of the crediting period.

B.2.4. Permanent changes from registered monitoring plan, applied methodology or applied standardized baseline

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Not applicable.

B.2.5. Changes to project design of approved project

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Not applicable

SECTION C. Description of monitoring system applied by the project

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Wind World (India) Limited is O&M contractor for the project activity and will be responsible for the maintaining all the monitoring data in respect of the project activity. Wind World (India) Limited has implemented the management structure for managing the monitored data.

This approved monitoring methodology requires monitoring of the following:

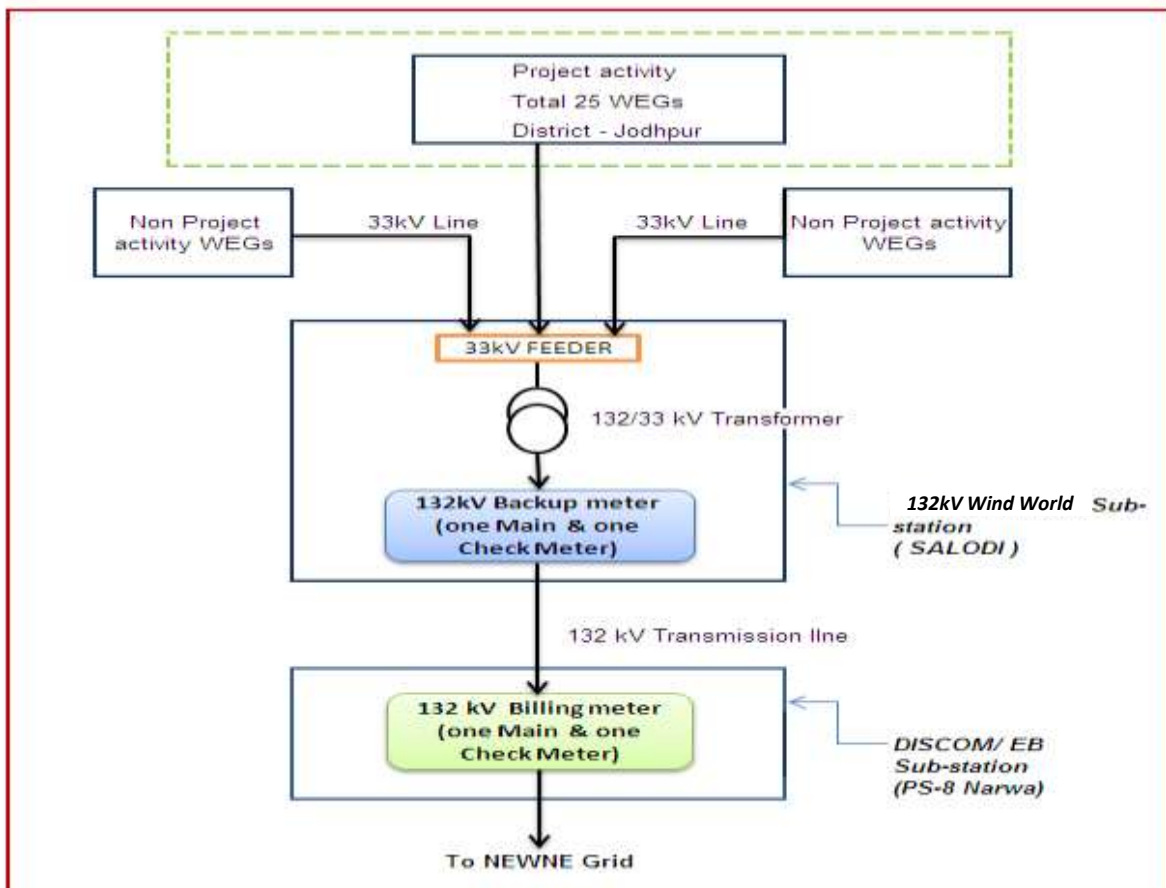
- Net electricity supplied from the project activity;

Emission factor of NEWNE electricity grid of the project activity is fixed ex-ante hence no further monitoring of this parameter is required. As per ACM002 leakage need not be considered hence leakage has not been considered for the project activity. Hence, the sole parameter for monitoring is the net electricity supplied by the project activity to the grid.

The Project activity is operated and managed by the Wind World (India) Limited. The operational and maintenance activity is taken care by the service department of Wind World, which is an ISO 9001 certified company. Wind World follows the documentation practices to ensure the reliability and availability of the data for all the activities as required from the identification of the site, wind resource assessment, logistics, finance, construction, commissioning and operation of the wind power project.

Calculation of Net Electricity Supplied to the grid by project activity:

Layout of Metering arrangement for project activity is as follows:-



From the above layout it is clear that project activity WECs (25Nos) along with WECs of other customers, who are not the part of project activity are connected to Wind World Sub-stations which are further connected to EB sub-station through EHV line. The 25WECs of project activity installed in Jodhpur district is connected through 132kV Wind World (India) Limited pooling sub-station (132kV SALODI sub-station), through 33kV feeder lines. At Wind World pooling sub-station SALODI electricity is stepped up to 132kV, wherein the backup meter (one main & one check meter) connected. From Wind World pooling sub-station electricity is transmitted to state utility (DISCOM) sub-station (PS-8 Narwa Sub-station) through 132kV transmission line/ EHV line wherein billing meter (one main & one check meter) is connected. At EB sub-station metering is done at 132kV billing meter. From state utility sub-station electricity is further transmitted to NEWNE grid.

The net electricity supplied to the grid will be calculated on monthly basis at the EB/DISCOM substations (PS-8 Narwa) wherein the billing meter is connected. The monthly joint meter readings are taken by the representatives of DISCOM and WWIL (PP's representative) who also signs the JMR. Simultaneously, the monthly joint meter reading of backup meters available at WWIL pooling sub-station (SALODI) is also taken by representatives of RVPN/DISCOM and WWIL. The copy of JMR at backup meters is available with Wind World.

Since, the project activity WECs are connected through common metering system along with non-project activity WECs of other customers at the main meter, apportioning of electricity export & import as recorded in JMR is being done to calculate the electricity export & import by individual WECs/ customers. Apportioning is being done based on the net electricity generation (Gross Export – Gross Import) recorded at LCS meter installed in individual WECs.

Based on the monthly JMR reading, which is signed by representative of DISCOM and PP's representative (WWIL); WWIL prepares the monthly breakup generation sheets, which indicate export, import & the net electricity supplied by individual customers to the grid. An apportioning procedure is used by PP's representative to arrive at net electricity supplied to the grid by individual investors.

The monthly generation sheet is submitted to both, DISCOM as well as individual investors. PP raises the invoice based on the monthly breakup sheet corresponding to the net electricity generation value indicated in the monthly breakup sheet. DISCOM based on the JMR reading along with monthly breakup sheet prepared by WWIL and the invoice raised, conduct the audit to cross check the net electricity values and in case all the values are found to be correct, DISCOM release the payment against the invoice raised by individual investors.

The values of the net electricity supplied to grid by project activity can be crosschecked with invoices raised by the PP on DISCOM and/or RTGS transaction or cheque copy.

Procedure for apportioning:-

Procedure used by PP's representative to prepare monthly breakup sheets for project activity:-

The monthly JMR reading contains the electricity export, import & net electricity supplied by all the WECs of project activity as well as non-project activity connected to the metering system at DISCOM substation. Hence in order to arrive at the electricity export, import & net electricity supplied by WECs of the project activity based on the net electricity generation (Gross Export – Gross Import) recorded at LCS meter, following procedure is used by O&M contractor (WWIL):-.

Net electricity generation (Gross Export – Gross Import) by WECs of project activity,

$$\sum EG_{\text{Controller}, j} = \sum_{j=1}^n EG_{\text{Controller}, j}$$

Where, n is the number of WECs (n = 1 to 25) in project activity.

Net electricity generation (Gross Export – Gross Import) by all WECs (Project activity & non project activity) connected to Discom substation,

$$\sum EG_{\text{Controller}, i} = \sum_{i=1}^{j+k} EG_{\text{Controller}, i}$$

Where, j+k is the number of WECs (project activity & non-project activity) connected to sub-station.

Gold Standard

As LCS meter measures the net electricity generation (Gross Export – Gross Import) by individual WEC, which is the difference of export and import and doesn't provide individual reading of Export & Import; the apportioning of electricity export & import at recorded at billing meter as indicated in JMR sheet is done based on net electricity generation (Gross Export – Gross Import) of WECs. This is a standard procedure that is followed in the state of Rajasthan and is accepted by the state DISCOM for payment of tariff invoices.

Electricity exported by all WECs of project activity is apportioned on the basis of summation of net electricity generation (Gross Export – Gross Import)⁴ (by all the WECs (j number of WECs) of project activity, as measured at the controller (LCS meter) at project site and the electricity export recorded at the main meter mentioned in the JMR. The formula used for computing electricity export to the grid by the project activity is as follows:-

Electricity Export to the grid by the Project activity,

$$EG_{Export,y} = \frac{EG_{JMR,Export} * \sum EG_{Controller,j}}{\sum EG_{Controller,i}^5} \dots\dots\dots(1)$$

As LCS meter measures the net electricity generation (Gross Export – Gross Import) by WECs and doesn't provide individual reading of Export & Import. Therefore apportioning of export as well as import for all WEC of the project activity is also apportioned on the basis of summation of net electricity generation (Gross Export – Gross Import) by all the WECs (j number of WECs) of project activity, as measured at the controller (LCS meter) at project site and the electricity import recorded at the main meter mentioned in the JMR. The formula used for computing electricity import from the grid by the project activity is as follows

Electricity Import from the grid by the Project activity,

$$EG_{Import,y} = \frac{EG_{JMR,Import} * \sum EG_{Controller,j}}{\sum EG_{Controller,i}} \dots\dots\dots(2)$$

Wherein,

$\sum EG_{Controller,j}$ = Summation of net electricity generation (Gross Export – Gross Import) by all the WECs (j number of WECs) of project activity, as measured at the controller (LCS meter) at project site

$\sum EG_{Controller,i}$ = Summation of net electricity generation (Gross Export – Gross Import) by all WEC (i number of WECs) of project activity or non-project activity, as measured at the controller (LCS meter) at project site

$EG_{JMR,Export}$ = Electricity export by project and non-project recorded at respective billing meters located at DISCOM sub-station. This can be checked from JMR certificates.

⁴ LCS meter installed in individual WEGs control panel measures the net/ gross electricity generation (Export- Import) by WEG and therefore $\sum EG_{Controller,j}$ is used by developer to calculate electricity export & import by individual developer (project activity & non project activity WEGs).

⁵ The report detailing the value of $\sum EG_{Controller}$ provided to the verifying DOE.

$EG_{JMR,Import}$ = Electricity import by project and non-project recorded at respective billing meters located at DISCOM sub-station. This can be checked from JMR certificates.

$EG_{Export,y}$ = Electricity export by project activity calculated as per formula 1 above

$EG_{import,y}$ = Electricity import by project activity calculated as per formula 2 above.

Therefore net electricity supplied to grid by 25 WECs of the project activity is calculated as the difference of equation (1) & (2),

$$EG_{Facility,y} = EG_{Export,y} - EG_{import,y}$$

Even though the above mentioned of apportioning is done by the PP's representative and submitted to respective DISCOM, the same undergoes the series of audit by the hierarchy of auditors (Asst. Auditors, divisional auditors & account auditors) and then finally authorised by the Superintending engineer (SE) of the circle office of respective DISCOMs.

The above method of apportioning is not conducted by the PP but is described in details only to provide the clear description of entire procedure by relevant authority.

Procedure to deal with data uncertainty:

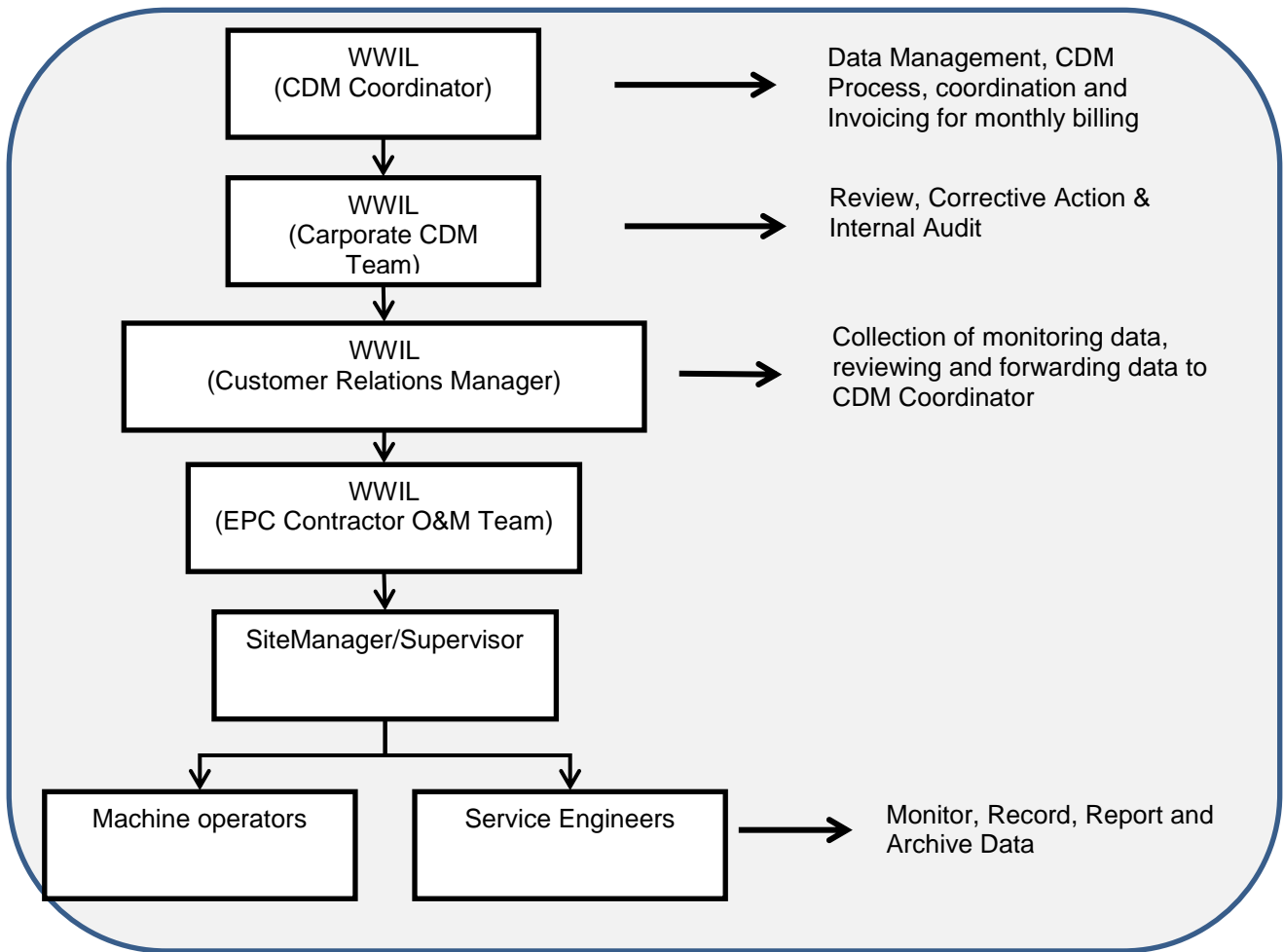
During the annual calibration, if the meter is found to be outside the permissible limits of the error and if that meter readings have been used in JMR, the (-ve) error value would be applied to electricity export and (+ve) error value will be applied to import of electricity from grid to all the JMR values since the date of last calibration. The meter would be replaced immediately with new calibrated meter.

Training and maintenance requirements:

Training on the machine is an essential pre-requisite, to ensure necessary safety of man and machine. Further, in order to maximize the output from the Wind Energy Converters (WECs), it is extremely essential, that the engineers and technicians understand the machines and keep them in good health. In order to ensure, that WWIL's service staffs is deft at handling technical snags on top of the turbine, the necessity of ensuring that they are capable of climbing the tower with absolute ease and comfort has been established. The WWIL Training Academy provides need-based training to meet the training requirements of WWIL projects. The training is contemporary, which results in imparting focused knowledge leading to value addition to the attitude and skills of all trainees. This ultimately leads to creativity in problem solving.

Monitoring roles and responsibilities

The operational and management structure implemented for data monitoring is as follows:



Meter Test Checking Details:

The metering equipment were inspected & tested by State Utility. Meter details & calibration details for the all the main and check meters are as follows:-

Location of meter	PS-8 Sub-station (Electricity Board) (Billing metering point)		Salodi Sub-station (WWIL) (Back metering point)		
Type of meter	Main Meter	Check Meter	Main meter	Check Meter	
Meter Sr. No.	RJB 00354	RJB 00356	RJB 00358	RJB 00357	
Meter Make	Secure	Secure	Secure	Secure	
Accuracy class	0.2%	0.2%	0.2%	0.2%	
Type	All the meters are two-way Tri-vector meters capable of recording import and export of electricity.				
Calibration Dates					
calibration	2015	21-Feb-15	21-Feb-15	21-Feb-15	21-Feb-15
Due Date of calibration		21-Feb-16	21-Feb-16	21-Feb-16	21-Feb-16
calibration	2017	16-Jun-17	16-Jun-17	16-Jun-17	16-Jun-17
Validity of calibration		15-Jun-18	15-Jun-18	15-Jun-18	15-Jun-18
Calibration 2019		14-Aug-2019	14-Aug-2019	14-Aug-2019	14-Aug-2019

Further, during the annual meter testing, all the meters were under the permissible limit of error and accordingly none of the meter was replaced during the current monitoring period. However, delay in calibration has been observed and therefore, as per guideline VVS (CDM-EB93-A05-STAN) para 369 (a) & VVS APPENDIX – CALIBRATION para 2 Table 1, PP has applied maximum permissible error for all measured values of “EG_{Export,y}” & “EG_{Import,y}” taken during the period between the scheduled date of calibration and the actual date of calibration conservatively.

As detailed in the above table, delay in meter calibration has been observed from the month of June 2018 as the scheduled date of meter calibration was 16th June 2018 and meters have been calibrated on 14 August 2019. Meter calibration activity is carried out by state utility and beyond the control of PP. So, following the conservative approach PP has considered delay for the month of June 2018 to Dec 2018 to apply the maximum permissible error of “0.2%” to all measured values of “EG_{Export,y}” & “EG_{Import,y}” Please refer Sheet “ER calculation sheet” for detailed calculation. Moreover, PP has submitted latest calibration certificates for year 2019 to DOE.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante or at renewal of crediting period

Relevant SDG Indicator	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
Data/parameter	EF _{grid,OM,y}
Unit	tCO _{2e} /MWh
Description	Operating Margin Emission Factor of NEWNE Electricity Grid
Source of data	“CO ₂ Baseline Database for Indian Power Sector”, version 6.0, published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO ₂ Baseline Database for Indian Power Sector” is available at http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver6.pdf
Value(s) applied	0.99431
Choice of data or Measurement methods and procedures	Database - Central Electricity Authority, Ministry of Power, Government of India.
Purpose of data	Calculation of Baseline Emissions
Additional comment	This value is calculated on ex-ante basis and will remain fixed for the entire crediting period.

Relevant SDG Indicator	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other
Data/parameter	$EF_{grid, BM, y}$
Unit	tCO _{2e} /MWh
Description	Build Margin Emission Factor of NEWNE Electricity Grid
Source of data	<p>"CO₂ Baseline Database for Indian Power Sector", version 6.0, published by the Central Electricity Authority, Ministry of Power, Government of India.</p> <p>The "CO₂ Baseline Database for Indian Power Sector" is available at http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver6.pdf</p>
Value(s) applied	0.81231
Choice of data or Measurement methods and procedures	Database - Central Electricity Authority, Ministry of Power, Government of India.
Purpose of data	Calculation of Baseline Emissions
Additional comment	This value is calculated on ex-ante basis and will remain fixed for the entire crediting period.

Relevant SDG Indicator	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other
Data/parameter	$EF_{grid, CM, y}$
Unit	tCO _{2e} /MWh
Description	Combined Margin Emission Factor of NEWNE Electricity Grid
Source of data	<p>Combined Margin Emission Factor ($EF_{grid, CM, y}$) is calculated as the weighted average of Operating Margin Emission Factor ($EF_{grid, OM, y}$) and Build Margin Emission Factor ($EF_{grid, BM, y}$).</p> <p>"CO₂ Baseline Database for Indian Power Sector", version 6.0, published by the Central Electricity Authority, Ministry of Power, Government of India.</p> <p>The "CO₂ Baseline Database for Indian Power Sector" is available at http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver6.pdf</p>
Value(s) applied	0.94881

Choice of data or Measurement methods and procedures	Database - Central Electricity Authority, Ministry of Power, Government of India.
Purpose of data	Calculation of Baseline Emissions
Additional comment	This value is calculated on ex-ante basis and will remain fixed for the entire crediting period.

D.2. Data and parameters monitored

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$EG_{\text{facility},y}$
Unit:	MWh (Mega-watt hour)
Description:	Net electricity generation supplied to the grid by the Project activity.
Measured/ Calculated / Default:	Calculated
Source of data:	Generation break-up sheets prepared by the developer (WWIL), which is based on monthly JMR reading recorded at main meter installed at DISCOM sub-station and the LCS controller meter (panel meter) reading.
Value(s) of monitored parameter:	75618.211
Monitoring equipment:	Since, it is calculated value, hence not applicable.
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly Refer section 'C' (Description of monitoring system) for an illustration of the provisions for measurement methods.
Calculation method (if applicable):	The procedures for calculation of net electricity supplied to grid has been followed as per the provisions of the power purchase agreement and details of calculation method has been explained in monitoring plan under section C of monitoring report.
QA/QC procedures:	Value of $EG_{\text{facility},y}$ can be cross checked with the tariff invoices raised on the DISCOM and/or RTGS transaction or cheque copy. All the billing (Main & Check) & Backup (Main & Check) meters are calibrated by DISCOM annually and the records are available with the representative of PP (WWIL)
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived both in electronic and hard paper format for crediting period + 2 years.

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$EG_{\text{Export},y}$
Unit:	MWh (Mega-watt hour)
Description:	Electricity export to the grid by the Project activity.
Measured/ Calculated / Default:	Calculated

Source of data:	Generation break-up sheets prepared by the developer (WWIL), which is based on monthly joint meter reading recorded at main meter installed at DISCOM sub-station and the LCS controller meter (panel meter) reading.
Value(s) of monitored parameter:	75739.581
Monitoring equipment:	Please refer section 'C' (Description of monitoring system) for the details of meter type, accuracy class, serial number, meter test checking frequency, date of last meter test checking and validity under the heading 'Meter Test Checking Details'
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly. Further all the meters have the capability of continuous measurement of data. Refer section 'C' for an illustration of the provisions for measurement methods.
Calculation method (if applicable):	-
QA/QC procedures:	Value of $EG_{Export,y}$ can be cross checked with the tariff invoices raised on the DISCOM and/or RTGS transaction or cheque copy. All the billing & Back meters are calibrated by DISCOM annually and the records are available with the representative of PP (WWIL)
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived both in electronic and hard paper format for crediting period + 2 years.

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$EG_{Import,y}$
Unit:	MWh (Mega-watt hour)
Description:	Electricity Import from grid by the Project activity.
Measured/ Calculated / Default:	Calculated
Source of data:	Generation break-up sheets prepared by the developer (WWIL), which is based on monthly meter reading recorded at main meter installed at DISCOM sub-station and the LCS controller meter (panel meter) reading.
Value(s) of monitored parameter:	121.370
Monitoring equipment:	Please refer section 'C' (Description of monitoring system) for the details of meter type, accuracy class, serial number, meter test checking frequency, date of last meter test checking and validity under the heading 'Meter Test Checking Details'
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly Further all the meters have the capability of continuous measurement of data. Refer section 'C' for an illustration of the provisions for measurement methods.
Calculation method (if applicable):	-

QA/QC procedures:	Value of $EG_{import,y}$ can be cross checked with the tariff invoices raised on the DISCOM and/or RTGS transaction or cheque copy. All the billing & Back meters are calibrated by DISCOM annually and the records are available with the representative of PP (WWIL).
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived both in electronic and hard paper format for crediting period + 2 years

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$EG_{JMR, Export}$
Unit:	MWh (Mega-watt hour)
Description:	Electricity export by project activity & non-project activity recorded by main meter installed at DISCOM sub-station.
Measured/ Calculated / Default:	Measured
Source of data:	Monthly JMR sheets recorded by representative of both DISCOM & WWIL
Value(s) of monitored parameter:	353795.232
Monitoring equipment:	Please refer section 'C' (Description of monitoring system) for the details of meter type, accuracy class, serial number, meter test checking frequency, date of last meter test checking and validity under the heading 'Meter Test Checking Details'
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly Further all the meters have the capability of continuous measurement of data. Refer section 'C' for an illustration of the provisions for measurement methods.
Calculation method (if applicable):	-
QA/QC procedures:	All the billing & Backup meters are calibrated by DISCOM annually and the records are available with the representative of PP (WWIL)
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived both in electronic and hard paper format for crediting period + 2 years

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$EG_{JMR, Import}$
Unit:	MWh (Mega-watt hour)
Description:	Electricity import by project activity & non project activity recorded by main meter installed at DISCOM sub-station
Measured/ Calculated / Default:	Measured
Source of data:	Monthly JMR sheets recorded by representative of both DISCOM & WWIL.
Value(s) of monitored parameter:	553.988

Monitoring equipment:	Please refer section 'C' (Description of monitoring system) for the details of meter type, accuracy class, serial number, meter test checking frequency, date of last meter test checking and validity under the heading 'Meter Test Checking Details'
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly Further all the meters have the capability of continuous measurement of data. Refer section 'C' for an illustration of the provisions for measurement methods.
Calculation method (if applicable):	-
QA/QC procedures:	All the billing & Backup meters are calibrated by DISCOM annually and the records are available with the representative of PP (WWIL).
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived both in electronic and hard paper format for crediting period + 2 years

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$EG_{\text{Controller}, i}$
Unit:	MWh (Mega-watt hour)
Description:	Net electricity generation (Gross Export – Gross Import) by a WEC of project activity or non-project activity, as measured at the controller (LCS meter) at project site. Each WEC has exclusive LCS meter that records net electricity generation (Gross Export – Gross Import) from the WEC (project or non-project). Where, i is any WEC between 1 to $j+k$. j is number of WEC of project activity connected to main meter at DISCOM substation and backup meter at WWIL substation. k is number of WEC of non-project activity connected to main meter at DISCOM substation and backup meter at WWIL substation.
Measured/ Calculated / Default:	Measured
Source of data:	Monthly controller generation report (LCS) sourced from SCADA system installed at project site.
Value(s) of monitored parameter:	Please refer ER calculation sheet for the values of parameter.
Monitoring equipment:	Please refer section 'C' for details of controller meter (LCS).
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly Further all the meters have the capability of continuous measurement of data. Refer section 'C' for an illustration of the provisions for measurement methods.

Calculation method (if applicable):	-
QA/QC procedures:	All the LCS meters are auto calibrated. In case of any fault WEC stops automatically and meter is replaced immediately.
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived in electronic form for crediting period + 2 years.

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$\sum EG_{\text{Controller},i}$
Unit:	MWh (Mega-watt hour)
Description	<p>Summation of net electricity generation (Gross Export-Gross Import) by all WEC (i number of WECs) of project activity (j number of WECs) and non-project activity (k number of WECs), as measured at the controller (LCS meter) at project site, Each WEC has exclusive LCS meter that records net electricity generation (Gross Export-Gross Import) from the WEC (project or non-project).</p> <p>Where,</p> <p>i is any WEC between 1 to j+ k and connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at WWIL substation.</p> <p>j is number of WECs of project activity connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at WWIL substation.</p> <p>k is number of WEC of non-project activity connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at WWIL substation.</p>
Measured/ Calculated / Default:	Calculated
Source of data:	Monthly controller generation report (LCS) sourced from SCADA system installed at project site.
Value(s) of monitored parameter:	Please refer ER calculation sheet.
Monitoring equipment:	Please refer section 'C' for details of controller meter (LCS).
Measuring/ Reading/ Recording frequency:	<p>Frequency of recording data: Monthly</p> <p>Further all the meters have the capability of continuous measurement of data.</p> <p>Refer section 'C' for an illustration of the provisions for measurement methods.</p>
Calculation method (if applicable):	Please refer section 'C' for calculation procedure.
QA/QC procedures:	All the LCS meters are auto calibrated. In case of any fault WEC stops automatically and meter is replaced immediately.
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived in electronic form for crediting period + 2 years.

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter:	$\sum EG_{\text{Controller}, j}$
Unit:	MWh (Mega-watt hour)
Description:	Summation of net electricity generation (Gross Export – Gross Import) by all the WECs (j number of WECs) of project activity, as measured at the controller (LCS meter) at project site. Each WEC has exclusive LCS meter that records net electricity generation (Gross Export – Gross Import) from the WEC (project or non -project). j is number of WEC of project activity connected to main meter at DISCOM substation and backup meter at WWIL substation.
Measured/ Calculated / Default:	Calculated
Source of data:	Monthly controller generation report (LCS) sourced from SCADA system installed at project site.
Value(s) of monitored parameter:	Please refer ER calculation sheet.
Monitoring equipment:	Please refer section 'C' for details of controller meter (LCS).
Measuring/ Reading/ Recording frequency:	Frequency of recording data: Monthly Further all the meters have the capability of continuous measurement of data. Refer section 'C' for an illustration of the provisions for measurement methods.
Calculation method (if applicable):	Please refer section 'C' for calculation procedure.
QA/QC procedures:	All the LCS meters are auto calibrated. In case of any fault WEC stops automatically and meter is replaced immediately.
Purpose of data:	Calculation of Baseline Emissions
Additional comment:	The data will be archived in electronic form for crediting period + 2 years.

Relevant SDG Indicator	8.5.2 Unemployment rate, by sex, age and persons with disabilities
Data/parameter:	Quality of Employment
Unit	Number of Training Programs/Workshops/ Awareness Programs
Description	Training provided to employees and O&M staff regarding occupational health management, safeguards put in place
Measured/calculated/default	Measured for duration 19/03/2016 to 31/12/2018
Source of data	Documentation pertaining to training programmes, awareness generation activities, photographs, interviews etc.

Value(s) of monitored parameter	<p>Following training programs have been conducted in order to enhance the safety awareness, operational skill levels and occupational health management for the local staff:</p> <p>2016: On 04/11/2016, total 11 employees benefitted through HSE training programs of "Mock Drill Emergency Scenario: Fire on grass due to short circuit".</p> <p>2017: On 15/12/2017, employees benefitted through HSE training programs related to "Mock drill conducted for (OH&S / Environment) emergency Health". The records of training & workshops have been submitted to the DOE.</p> <p>2018: On 14/12/2018, total 20 employees benefitted through HSE training programs related to job safety, Incident Management and work permit revision.</p> <p>The records of training & workshops have been submitted to the DOE.</p>
Monitoring equipment	Manually by PP representative
Measuring/reading/recording frequency:	Annually
Calculation method (if applicable):	Manually by PP representative
QA/QC procedures:	The training programmes help in making the workforce efficient and skilled at their job. This not only helps the company but adds to growth of individual employees. Thus, the project has a positive impact on the parameter.
Purpose of data:	To monitor the contribution to SDG 8
Additional comments:	None

Relevant SDG Indicator	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, new born and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)
Data/parameter:	Human and Institutional capacity
Unit	Total number of initiatives, events and programmes, primarily Health and Education Camps
Description	Health and Education related activities conducted for well-being of locals/villagers
Measured/calculated/default	Measured for duration 19/03/2016 to 31/12/2018
Source of data	Records of organized events, photographs, proof of payments etc.

Value(s) of monitored parameter	<p>Since access to basic education, health, basic amenities and infrastructural facilities are basic factors to facilitate human and institutional capacity development; various initiatives have been undertaken by the project developer to contribute to these thematic areas. The contribution made during monitoring period is mentioned below:</p> <p>1. HEALTH (Healthcare Services) As part of its broader endeavour towards better health for the local community, Project participant has initiated an ambitious project to provide primary health care services through the operation of a healthcare services. The health services are rendered through qualified medical staff including an MBBS doctor. Mobile health van is also equipped with the essential medical equipment and basic medication. Roster for the van has been prepared in a manner so that it can go to each of the nine villages at least once a week. So far, mobile health van has catered to 500 patients including women, children and elders. Source: CSR Status Report- By "Wind World (India) Ltd" and Group Companies, (Aug 2016 to April 2017)</p> <p>2. Health Camps, School Kits and Promotion of Menstrual Hygiene and Sanitation at Govt, Schools On 28 and 29th Aug 2018, PP had launched CSR Program has covered three under privileged Schools in the rural villages of Rajasthan. Source: DHARA Sansthan Program Progress Report, October 2018 & CSR Status Report- By "Wind World (India) Ltd" and Group Companies, (Aug 2016 to April 2017)</p> <p>3. Clean Drinking Water Project Proponent understands that provision of clean drinking water is an integral component for a better health ecosystem. In light of this sensitization Project Proponent has initiated a programme to install RO systems in 12 schools in Rajasthan, so that, the children get access to clean drinking water. Source: CSR Status Report- By "Wind World (India) Ltd" and Group Companies, (Aug 2016 to April 2017)</p> <p>Around 200 people have been directly or indirectly benefitted by various HID and CSR initiatives undertaken by the project developer.</p>
Monitoring equipment	Manually
Measuring/reading/recording frequency:	Annually
Calculation method (if applicable):	-
QA/QC procedures:	-
Purpose of data:	To monitor the contribution to SDG 3 (Ensure healthy lives and promote well-being for all at all ages)
Additional comments:	None

Relevant SDG Indicator	8.5.2 Unemployment rate, by sex, age and persons with disabilities
Data/parameter:	Quantitative employment and income generation
Unit	Number of Employees
Description	Number of jobs generated during the operation of the wind farm.
Measured/calculated/default	Measured for duration 19/03/2016 to 31/12/2018
Source of data	Attendance Sheet and employment records maintained by Project Developer

Value(s) of monitored parameter	<p>The project activity is located at Jodhpur district. 25 WEGs of project activity installed in Jodhpur district is connected through 132kV Wind World (India) Limited (herein after referred as WWIL) pooling sub-station (132kV SALODI sub-station), through 33kV feeder lines.</p> <p>At each Substation various sites are connected where local staff is employed. At present, the number of jobs created due to the project activity is divided under following categories:</p> <ul style="list-style-type: none"> i. Technical Staff (5) ii. Non-Technical Staff (18) iii. Security Staff (2) <p>O&M contractor has assigned team of above mentioned technical, non-technical and security guards for the project activity, who are responsible for all project related wind turbines. Specifically at present, total 25 local people have been employed for the project activity during the monitoring period under consideration. Corresponding attendance sheets and other relevant records on annual monitoring have been submitted to DOE.</p> <p>In addition to this, because of the infrastructure development (road construction, road repairs, cleaning of substation etc.), local villagers are getting short time jobs thus leading to income generation. Since this is an indirect benefit of the project activity in terms of income generation, it is not possible to exactly quantify the same. However, it can be conservatively stated that around 50 people have got additional livelihood/income generation opportunities because of the project activity.</p>
Monitoring equipment	Attendance Sheet and employment records maintained by Project Developer
Measuring/reading/recording frequency:	Annually
Calculation method (if applicable):	-
QA/QC procedures:	Additional job opportunities created for the local population. Income generation to be enhanced by creating relatively high value job opportunities through training and capacity building.
Purpose of data:	To monitor the contribution to SDG 8
Additional comments:	None

D.3. Implementation of sampling plan

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Not Applicable

SECTION E. Calculation of SDG outcomes

E.1. Calculation of baseline value or estimation of baseline situation of each SDG outcome

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Applied methodology and methodological steps:

"The baseline is the quantity of electricity (MWh) produced by the renewable generating unit multiplied by an emission coefficient (measured in t CO_{2e}/MWh) calculated in a transparent and conservative manner as the weighted average emissions (in t CO_{2e}/MWh) as described in registered PDD.

$$BE_y = EG_{PJ,y} * EF_{grid, CM, y}$$

Where:

- BE_y = Baseline emissions in year y (tCO₂/yr)
 $EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr)
 $EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO₂/MWh)

Baseline emission factor (Combined Margin) ($EF_{grid,CM,y}$) = 0.94881 tCO_{2e}/MWh.

Since, the project activity is the installation of a new grid connected renewable power plant the $EG_{PJ,y}$ is calculated as :

$$EG_{PJ,y} = EG_{facility,y}$$

$EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)

Baseline Emission Reductions calculation for project activity:-

Duration	Net electricity generation supplied to the grid by the Project activity [MWh]	Baseline Emission Factor (tCO _{2e} /MWh)	Baseline Emissions (tCO _{2e})
	[EG _y]	[EF _y]	[BE _y] = [EG _y] * [EF _y]
19/03/2016 to 31/12/2018	75,618.211	0.94881	71,746
Total	75,618.211	0.94881	71,746

Vintage wise Breakup

Monitoring Period	Quantity
19/03/2016 to 31/12/2016	19,349
01/01/2017 to 31/12/2017	25,379
01/01/2018 to 31/12/2018	27,018
Grand Total	71,746

E.2. Calculation of project value or estimation of project situation of each SDG outcome

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The company conducts regular surveys during construction as well as O&M phases in the villages near project locations to check the requirement of facilities by the villages. Based on the surveys, PP identifies and works on several scope(s) of developmental activities such as health camps, distribution of furniture & sports kits in schools, toilet requirements in government schools, drinking water requirements etc. Apart

from these activities, some or all of which will be conducted in any given year, following SDGs will be impacted every year.

<p>SDG 3: Good Health And Well-Being</p>	<p><u>Method:</u> PP has conducted health camps, provide free preventive health service and medicines in nearby villages.</p> <p><u>Frequency:</u> Quarterly.</p> <p><u>QA/QC procedures:</u> Maintain records of primary data at execution level; also conduct data analysis and gap assessment at various levels of such programs and events.</p> <p><u>Purpose:</u> To identify the beneficiaries that are impacted under this SDG parameter.</p>
<p>SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p><u>Method:</u> Monitored through energy meter. The net electricity supplied to the grid by the wind farm has been calculated by Rajasthan state grid on the basis of main meter reading and the meter readings taken at substation meters after adjusting transmission loss. The net electricity generated by the project activity has been taken directly from the JMR issued by the state grid on monthly basis.</p> <p><u>Frequency:</u> Monthly</p> <p><u>QA/QC procedures:</u> Net electricity supplied to the grid by the project activity will be cross checked with invoices submitted to EB. The meter(s) shall be calibrated on a regular basis.</p> <p><u>Purpose:</u> To measure the electricity produced and supplied to the grid</p>
<p>SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<p><u>Method:</u> Training records, Attendance Sheet, Employment records data maintained by Project Developer. Project developer has comprehensive internal systems in place wherein all essential norms pertaining to safety, occupational health and working conditions are being followed.</p> <p><u>Frequency:</u> Annual</p> <p><u>QA/QC procedures:</u> Continuation of regular trainings/workshops for employees & O&M staffs</p> <p><u>Purpose:</u> To identify and record the no. of trainings provided to the employees as well as employment generated due to project activity.</p>
<p>SDG 13: Take urgent action to combat climate change and its impacts</p>	<p><u>Method:</u> Monitored through energy meter. Net electrical energy has been calculated to the best accuracy at the substation of State Electricity Board. Further using processes and equations provided under "Tool to calculate the emission factor for an electricity system", and referencing data from CEA database.</p> <p><u>Frequency:</u> Every monitoring period (whereas Emission Factor calculated based on combined margin approach is fixed ex-ante for the entire crediting period)</p> <p><u>QA/QC procedures:</u> Transparent data collection, analysis, calculation and reporting as CEA database is publicly available.</p> <p><u>Purpose:</u> To calculate emissions avoided due to the project activity</p>

E.3. Calculation of net benefits as difference of baseline and project values or direct calculation for each SDG outcome

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Item	Baseline estimate	Project value	Net benefit
SDG 7: Affordable and Clean Energy	0	= 75618.211 MWh	75618.211 MWh
SDG 8: Decent Work and Economic Growth	0	1 trainings 20 employees	3 trainings 20 employees
SDG 13: Climate Action	71,746 tCO ₂	0	71,746 tCO ₂

E.4. Summary of ex-post values of each SDG outcome for the current monitoring period

Item	Baseline estimate	Project estimate	Net benefit
SDG 7 : Affordable and Clean Energy	0	= $34164 * 1018 / 365$ 95,285 MWh	75,618.211 MWh
SDG 8 Decent Work and Economic Growth	0	1 trainings 20 employees	3 trainings 20 employees
SDG 13 Climate Action	90,406 tCO ₂	0	71,746 tCO ₂

E.5. Comparison of actual value of outcomes with estimates in approved PDD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 7 : Affordable and Clean Energy	= $34164 * 1018 / 365$ 95,285 MWh	75,618.211 MWh
SDG 8 Decent Work and Economic Growth	1 trainings 20 employees	2 trainings 20 employees
SDG 13 Climate Action	90,406 tCO ₂	71,746 tCO ₂

E.6. Remarks on difference from estimated value in approved PDD

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The difference of each SDGs in the current monitoring period from estimated value in approved PDD is:

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 7: Affordable and Clean Energy	= $34164 * 1018 / 365$ 95,285 MWh	75,618.211 MWh
SDG 8: Decent Work and Economic Growth	1 trainings 20 employees	2 trainings 20 employees
SDG 13: Climate Action	90,406 tCO ₂	71,746 tCO ₂

The emission reductions for the current monitoring period is 20.64 % lower than the estimated value in the registered PDD for the same monitoring period. This is primarily due to seasonal nature of wind power projects in India.

SECTION F. Stakeholder inputs and legal disputes

F.1. List all inputs/grievances which have been received for the project during the monitoring period together with their respective answers/actions

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No formal complaints were received as part of the grievance mechanism during the monitoring period under consideration. However, as part of organizational policy, continuous interactions have been undertaken by Project Participant's officials with local community stakeholders and there were few common observations and comments which were given by villagers during those discussions. Common queries raised and the suggestions given by villagers have been presented below for reference:

- Whether Project Participant is going to enhance the drinking water facility for more schools going students in the vicinity of project site?
- Project Participant should work more on enhancing the health van services for more villages falling in the vicinity of project site.
- Project Participant should initiate programs in area of aganwadi training and skill development employment program for women.
- Whether Project Participant is going to enhance basic school infrastructure (School Bags, Furniture, Bicycle) for more schools going students in the vicinity of project site?

All the observations, comments and queries have been adequately responded to. Some of the suggestions have also been incorporated in the overall vision and stakeholder engagement action plan of the organization.

F.2. List all inputs/grievances from previous monitoring period where follow up action is to be verified in this monitoring period

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There are no pending inputs/grievances from previous monitoring period where follow up action is to be verified in this monitoring period.

F.3. Provide details of any legal contest or dispute that has arisen with the project during the monitoring period

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There are no pending legal contest or dispute that has arisen with the project during the monitoring period.