



**Monitoring report form for CDM project activity**  
(Version 08.0)

*Complete this form in accordance with the instructions attached at the end of this form.*

**MONITORING REPORT**

<b>Title of the project activity</b>	Bundled Wind Power Project by EKI Energy Services Limited (EKIESL-CDM.January-14-04)		
<b>UNFCCC reference number of the project activity</b>	10140		
<b>Version number of the PDD applicable to this monitoring report</b>	04		
<b>Version number of this monitoring report</b>	02		
<b>Completion date of this monitoring report</b>	18/06/2021		
<b>Monitoring period number</b>	01		
<b>Duration of this monitoring period</b>	22/04/2016 to 31/10/2020(inclusive of first and last date)		
<b>Monitoring report number for this monitoring period</b>	N/A		
<b>Project participants</b>	M/s ReXchange Global Solutions (P73)		
<b>Host Party</b>	India		
<b>Applied methodologies and standardized baselines</b>	AMS-I.D "Grid connected renewable electricity generation" (EB 61, Version 17) Standardized baselines: Not Applicable		
<b>Sectoral scopes</b>	1 : Energy industries (renewable - / non-renewable sources)		
<b>Amount of GHG emission reductions or net anthropogenic GHG removals achieved by the project activity in this monitoring period</b>	Amount achieved before 1 January 2013	Amount achieved from 1 January 2013 until 31 December 2020	Amount achieved from 1 January 2021
	0 tCO <sub>2</sub>	52,048 tCO <sub>2</sub>	0 tCO <sub>2</sub>
<b>Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante for this monitoring period in the PDD</b>	72,858 tCO <sub>2</sub>		

## SECTION A. Description of project activity

### A.1. General description of project activity

The project activity is the installation and operation of 5 Wind Turbine Generators (WTGs) of different make and capacity at Maharashtra and Gujarat state of India. The project activity uses renewable energy (wind) as a clean fuel to generate electrical energy. The total installed capacity of the project is 8.8 MW, which comprises 5 nos. of Wind Machines installed. The details are as follows;

S. No.	WTG Owner	Capacity (MW)	No. of WTGs	Total Capacity (MW)	Connection to the Grid	Power Utilization
1	Surbhi Textile Mills Pvt. Ltd.	2	1	2	NEWNE(now Unified Indian Grid)	Sale to Grid
		2	1	2	NEWNE(now Unified Indian Grid)	Sale to Grid
		0.8	1	0.8	NEWNE(now Unified Indian Grid)	Captive
2	SJP Constructions Private Limited	2	1	2	NEWNE(now Unified Indian Grid)	Sale to Grid
		2	1	2	NEWNE(now Unified Indian Grid)	Sale to Grid

The wind power project is emission free source of energy and reduces the overall emissions of the respective grids of India. The project activity involves Wind Machines of different make, capacity and manufacturer as mentioned in section B of MR.

The project activity is a bundled project activity and M/s ReXchange Global Solutions (P73) acts as a focal point and the CER sharing among the participants is done through internal agreements between the partners.

### Purpose of the project activity

The main purpose of the project activity is to generate electrical energy through sustainable means using wind power resources and to utilize the generated output for selling it to the state electricity utility as well as for captive purpose thus displacing the electricity at the regional grid (NEWNE) (now a part of Unified Indian Grid) which are dominated by the import of Fossil fuel based power plants and to contribute to climate change mitigation efforts. It's a Greenfield project activity.

### Scenario existing prior to the implementation of project activity:

The scenario existing prior to the implementation of the project activity is electricity delivered to the grid by the project activity that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system".

### Baseline Scenario:

The baseline scenario for the project activity is identical to the scenario existing prior to the implementation of the project activity.

### A.2. Location of project activity

The information regarding project locations is mentioned below:

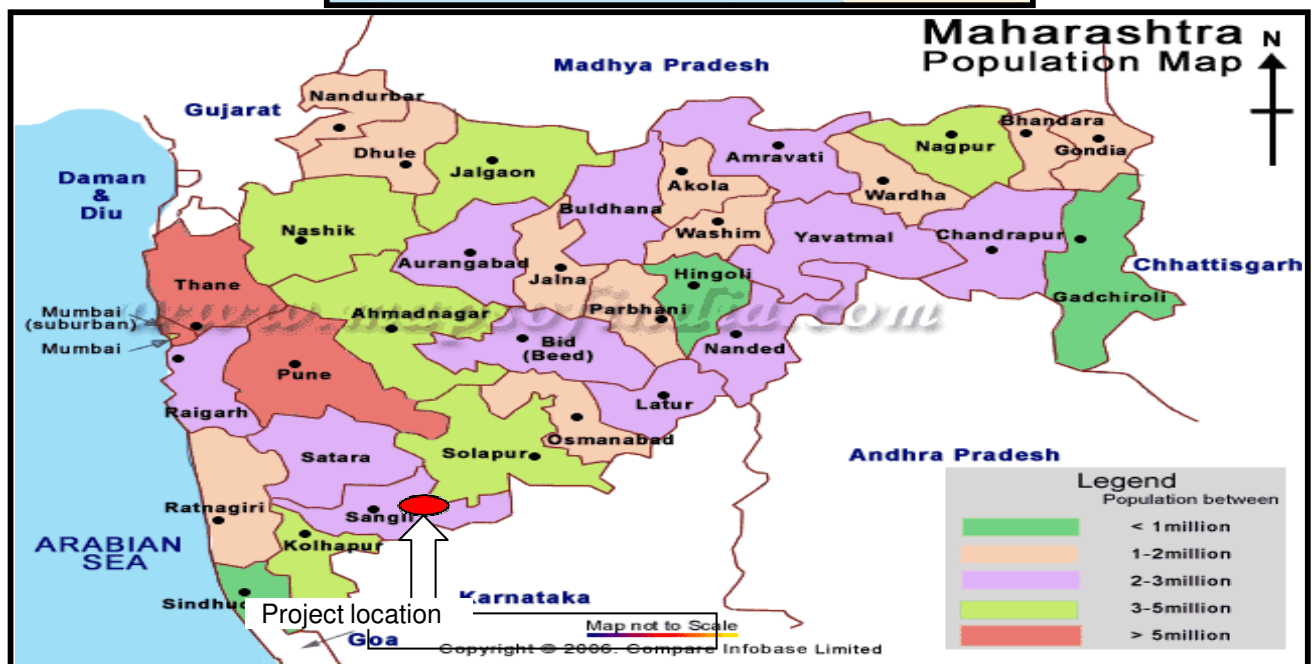
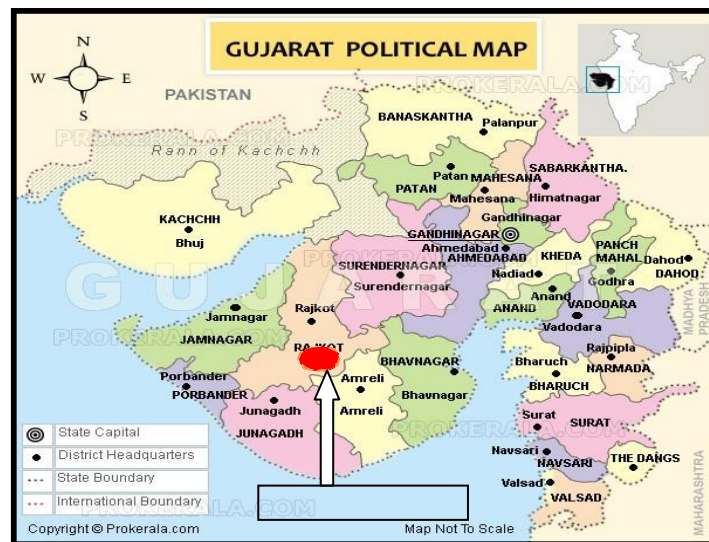
WTG Owner	Capacity (MW)	Village	District	State
Surbhi Textile Mills Pvt. Ltd.	2	Rawalgundwadi	Sangli	Maharashtra

Surbhi Textile Mills Pvt. Ltd.	2	Rawalgundwadi	Sangli	Maharashtra
Surbhi Textile Mills Pvt. Ltd.	0.8	Khadavdi	Rajkot	Gujarat
SJP Constructions Pvt. Ltd.	2	Rawalgundwadi	Sangli	Maharashtra
SJP Constructions Pvt. Ltd.	2	Rawalgundwadi	Sangli	Maharashtra

Physical location of the project is indicated in the table below:

WTG Owner	Capacity (MW)	WTG ID	Latitude			Longitude		
			Deg	Min	Sec	Deg	Min	Sec
Surbhi Textile Mills Pvt. Ltd.	2	MV2T-18	16	59	20.04	75	17	47.083
Surbhi Textile Mills Pvt. Ltd.	2	MV2T-61	16	57	25.7	75	16	10.3
Surbhi Textile Mills Pvt. Ltd.	0.8	WWIL/800/13-14/3420	22	7	7.7	71	5	3
SJP Constructions Pvt. Ltd.	2	MV2-T-19	16	59	28.66	75	17	27.92
SJP Constructions Pvt. Ltd.	2	MV2-T-20	16	59	7.85	75	17	15.91

The geographical locations for the projects are mentioned below:



**A.3. Parties and project participants**

Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
India (host)	M/s ReXchangeGlobal Solutions (P73)	No

**A.4. References to applied methodologies and standardized baselines**

**Project Type:** I – Renewable Energy Project

**Project Category:** I.D. – Grid Connected Renewable Electricity Generation (Version 17<sup>1</sup>, EB 61)

As per para 10 of the methodology AMS-I.D Version 17,

“The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.”

The project activity supplies power to the NEWNE Grid (now a part of Unified Indian Grid) & completely comply with the para 10 of AMS-I.D, Version 17.

**A.5. Crediting period type and duration**

The crediting period for this project activity has renewable crediting period. The duration for this crediting period is from 22/04/2016 – 21/04/2023 (7 Years)

**SECTION B. Implementation of project activity****B.1. Description of implemented project activity**

**Wind Power Technology Details** – The technology being employed, converts wind energy to electrical energy. In wind power generation, energy of wind is converted into mechanical energy and subsequently into electrical energy. The technology is an environment friendly technology since there are no GHG emissions associated with the electricity generation. There is no transfer of technology involved in the project activity. As per the technical details provided from the manufacturer the life of the plant is considered as 20 years.

WTG Owner	Capacity (MW)	Machine Manufacturer	Machine Make
Surbhi Textile Mills Pvt. Ltd.	2	Inox Wind Limited	WT 2000 DF
Surbhi Textile Mills Pvt. Ltd.	2	Inox Wind Limited	WT 2000 DF
Surbhi Textile Mills Pvt. Ltd.	0.8	Wind World India Private Limited	E – 53
SJP Constructions Pvt. Ltd.	2	Inox Wind Limited	WT 2000 DF
SJP Constructions Pvt. Ltd.	2	Inox Wind Limited	WT 2000 DF

Technical details for WT 2000 DF Machine manufactured by Inox Wind Limited are given below:

Particular	Particular
Rated Power	2000 kW
Rotor Diameter	93m
Rotational Speed	15.9 rpm
Swept Area	6785 m <sup>2</sup>
Hub Height	80 m
Cut-in Speed	3 m/s

<sup>1</sup> <https://cdm.unfccc.int/methodologies/DB/W3TINZ7KKWCK7L8WTFQQOFQQH4SBK>

Rated Wind Speed	11 m/s
Cut-off wind Speed	20 m/s
Gear Type	2 Planetary & 1 Parallel shaft gear
Gear ratio	1: 114.7
Generator Type	Double feed Induction Generator
Generator Rated Power	2000 kW
Rated Voltage	690 V AC, 3 Phase
Frequency	50 Hz
Estimated design Life time	25 Years

Technical details for Wind World India Limited E-53 Machines are:

<b>Turbine model</b>	Wind World India Limited <b>E- 53</b>
Rated power	800 KW
Rotor diameter	53 m
Hub height	75 m
Turbine Type	Gearless horizontal axis wind turbine with variable rotor speed
Power regulation	Independent electromechanical pitch system for each blade.
Cut in wind speed	2.5 m/s
Rated wind speed	12 m/s
Cut out Wind speed	28-34 m/s
Extreme Wind Speed	59.5 m/s
Rated rotational speed	32 rpm
Operating range rot. speed	12-29 rpm
Orientation	Upwind
No of Blades	3
Blade Material	Fibre Glass Epoxy reinforced with integral lightning protection
Gear box type	Gear less
Generator type	Synchronous generator
Braking	Aerodynamic
Output Voltage	400 V
Yaw System	Active yawing with 4 electric yaw drives with brake motor and friction bearing
Tower	74 m concrete

The technology being employed is well proven, safe & sound. No technology transfer to host party is there due to project activity. Further, the baseline scenario is a continuation of current practice, thus identical to the scenario existing prior to the implementation of the project activity.

#### **Commissioning Details:**

WTG Owner	Capacity (MW)	WTG ID	Commissioning Date
Surbhi Textile Mills Pvt. Ltd.	2	MV2T-18	31/03/2014
Surbhi Textile Mills Pvt. Ltd.	2	MV2T-61	31/03/2014

Surbhi Textile Mills Pvt. Ltd.	0.8	WWIL/800/13-14/3420	01/05/2014
SJP Constructions Pvt. Ltd.	2	MV2-T-19	30/03/2014
SJP Constructions Pvt. Ltd.	2	MV2-T-20	30/03/2014

## **B.2. Post-registration changes**

### **B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents**

There are no deviations from the registered monitoring plan or applied methodology.

### **B.2.2. Corrections**

There are no corrections

### **B.2.3. Changes to the start date of the crediting period**

The starting date of crediting period was changed from 22/04/2015 to 22/04/2016.

### **B.2.4. Inclusion of monitoring plan**

There has been no change in the monitoring plan.

### **B.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents**

There are no any permanent changes from registered monitoring plan or applied methodology.

### **B.2.6. Changes to project design**

There are no changes to project design of registered project activity.

### **B.2.7. Changes specific to afforestation or reforestation project activity**

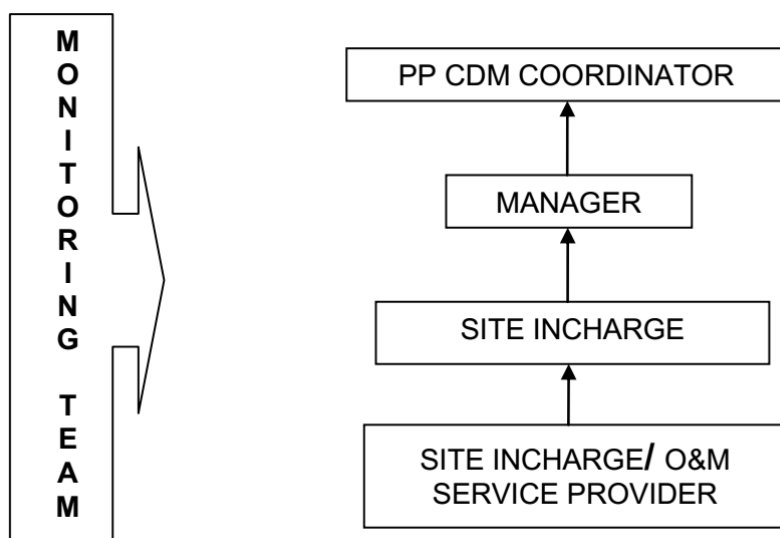
Not Applicable

## **SECTION C. Description of monitoring system**

The monitoring procedure sets guidelines for the project investor to monitor the parameters regularly and to ensure quality and accuracy in monitoring. It elaborates on the functions of the monitoring team and procedures to be followed in monitoring of the CDM parameters.

The monitoring includes all the equipments that contribute towards reduction in GHG emissions. Since the project activity focuses mainly on the generation of renewable power from the WTGs, it is important to monitor all the equipments involved in the metering of all the necessary instruments.

The project investor has a well-defined management structure for monitoring the project activity. The O & M Contractor for the project activity are manufacturers mentioned in the section A.3 above for respective machines.

**Organizational Structure for monitoring****Organizational Structure for monitoring (Common for all states):**

Designation	Responsibilities
PP CDM COORDINATOR	Overall project monitoring including collecting and aggregating JMRs/Invoices for all WTG investors
MANAGER	Holds complete control over monitoring aspects pertaining to the project
SITE INCHARGE	<ul style="list-style-type: none"> <li>• Recording</li> <li>• Verification</li> <li>• Storage of Data</li> </ul>
SITE INCHARGE/ O&M SERVICE PROVIDER	<ul style="list-style-type: none"> <li>• Operation and Maintenance</li> <li>• Storage of data</li> <li>• Data Recording</li> </ul>

**Personnel Training (Common for All states):**

The project personnel, including those involved in data recording, maintenance and direct data assessments are provided with training on the application and usage of the manual.

**Training and maintenance requirements (Common for All states):**

O&M operator provides training to the on-site staffs on operation and maintenance of the metering system and adherence to the Monitoring Plan of the project activity.

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 WTGs, it is extremely essential, that the engineers and technicians understand the machines and keep them in good health. In order to ensure that technology providers' service staff 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.

**Monitoring Requirements**

The monitoring plan includes monitoring of energy parameters such as net energy export to the regional grid. Emission reductions resulted from the project activity are calculated based on the net

energy exported to the grid. Sales records are used and kept for checking the consistency of the recorded data.

Monitoring equipment comprises of energy meter, which monitors the energy fed by the WTGs to the grid system by the project. Project proponent calibrates the meter at-least once in a year in Maharashtra and once in 3 year in Gujarat. For the WTGs in project activity, the monthly reading is taken of the meter at substation by state utility and representative of PP. This reading gives the net electricity exported to the grid by all WTGs connected to the substation. The WTGs of other owners are also connected to the substation. The O&M contractor takes reading of the controller meters located at WTGs and provided these data to state utility. Based on the meter reading of the meter located at WTG and meter reading at substation meter, the state utility carry out the apportioning of net electricity exported and issues the generation report to each WTG owners. This generation report state net electricity exported to the grid by each owner. The apportioning is not under the control of PP and generation report forms the basis of emission reductions calculations. Apportioning is performed using following formula:

**Net Electricity Exported to the Grid by the project activity is calculated as per apportioning procedure followed by state utility:**

$$EG_{BL,y} = EG_{\text{Net Export at Substation}} \times (EG_{\text{panel},y} / EG_{\text{panel, Project \& Non project WTGs}})$$

Where,

$$EG_{\text{Net Export at Sub-station}} = EG_{\text{Export at Sub-station}} - EG_{\text{Import at Sub-station}} \text{ and,}$$

$EG_{BL,y}$	Net electricity supplied to the grid by WTG y (MWh)
$EG_{\text{Net Export at Substation}}$	Net electricity exported by all WTGs connected to the substation (project activity WTGs and non-project activity WTGs) meter (MWh)
$EG_{\text{Export at Sub-station}}$	Electricity export to the grid by the Project Activity and the other PPs connected to the same sub-station meter.
$EG_{\text{Import at Sub-station}}$	Electricity Imported from the grid by the Project Activity and the other PPs connected to the same sub-station meter.
$EG_{\text{panel},y}$	Electricity exported by the project activity WTGs as measured at panel meters installed at every WTG (MWh)
$EG_{\text{panel, Project \& Non project WTGs}}$	Sum of Electricity exported by the project and non-project WTGs connected to the sub-station meter as measured at panel meters installed at every WTG (MWh)

The baseline emission factor is fixed ex-ante for all the years of the crediting period using the official data published by the Central Electricity Authority for the NEWNE grid (now part of Unified Indian Grid) and hence is not included in the monitoring procedures.

**Procedure for apportioning of electricity supplied to the grid where dates of monitoring period are not matching with dates of joint meter reading reports (Common for All states):**

There are instances when the claim of emission reductions will be in middle of any month and apportioning will have to be done to arrive at electricity supplied reading for that certain period. In case any monitoring period starts from the middle of the month a simple daily average shall be calculated for that particular month and accordingly the values for the number of days shall be arrived. This approach is appropriate as the monthly value shall remain the same while as this situation will happen only when the monitoring period falls in between the JMR reporting days. Thus credits considered for first half shall be calculated based on the daily average values while



the remaining credits shall be accounted in the subsequent monitoring period. This approach ensures that monthly values remains the same which can be cross-checked with the JMR.

#### **QA/QC Procedures:**

The main and backup meter installed at connected substations for monitoring of the project activity are electronic tri-vector energy meters of 0.2 accuracy class. Each meter is jointly inspected and sealed on behalf of project proponent and RRVPNL, in the presence of its authorised representatives. All main and backup meter are calibrated annually by RRVPNL or its representatives.

#### **Data Recording and Storage**

For measuring the net energy exported by the project at the interconnection point, one set of Main meter and Check Meter have been provided by the project proponent. Representatives of both project proponent and State Utility remain present to record the monthly meter readings. The state utility prepares the credit report for the net energy exported to the grid and same is used as a basic document for monitoring and verification of the net energy exported to the grid. Utility pays to the project proponent based on this document.

The above document is kept at safe storage for verification of emission reductions generated from the project activity. The period of data storage will be 2 years beyond crediting period.

#### **Emergency preparedness**

The project activity doesn't result in any unidentified activity that can result in substantial emissions from the project activity. However, in case monitoring equipments get failed or found faulty, they shall be replaced with calibrated meters as quickly as possible. In case main meter get failed or found faulty, the reading of check meter will be considered. No such event occurred during current monitoring period.

#### **Personnel training**

In order to ensure a proper functioning of the project activity and a properly monitoring of emission reductions, the staff is trained. The Shift In-charge and Plant In-charge are trained in equipment operation, data recording, operation and maintenance and emergency procedures in compliance with the monitoring plant.

## **SECTION D. Data and parameters**

### **D.1. Data and parameters fixed ex ante**

<b>Data/Parameter</b>	<b>EF<sub>grid,OM,y</sub></b>
Unit	tCO <sub>2</sub> /MWh
Description	Operating margin emission factor of the grid
Source of data	Central Electricity Authority: "CO <sub>2</sub> Baseline Database for Indian Power Sector", Version 9 <sup>2</sup>
Value(s) applied	0.9776 tCO <sub>2</sub> /MWh (for the NEWNE Grid) )(now a part of Unified Indian Grid)
Choice of data or measurement methods and procedures	The operating margin emission factor is used to calculate the baseline emissions. The operating margin emission factor has been deduced from CO <sub>2</sub> database of CEA.
Purpose of data/parameter	The operating margin emission factor is Generation weighted average of the simple operating Margin of 3-years data, based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation
Additional comments	For the calculation of the Baseline Emission

<sup>2</sup> [https://cea.nic.in/wp-content/uploads/baseline/2020/07/user\\_guide\\_ver9.pdf](https://cea.nic.in/wp-content/uploads/baseline/2020/07/user_guide_ver9.pdf)

Data/Parameter	$EF_{grid, BM, y}$
Unit	tCO <sub>2</sub> /MWh
Description	Build margin emission factor of the grid
Source of data	Central Electricity Authority: "CO <sub>2</sub> Baseline Database for Indian Power Sector", Version 9
Value(s) applied	0.9673 tCO <sub>2</sub> /MWh (for the NEWNE Grid)(now a part of Unified Indian Grid)
Choice of data or measurement methods and procedures	The build margin emission factor is used to calculate the baseline emissions. The build margin emission factor has been deduced from CO <sub>2</sub> database of CEA.
Purpose of data/parameter	The build margin emissions factor has been considered for the most recent year available at the time of submission of the CDM-PDD to the DOE for validation
Additional comments	For the calculation of the Baseline Emission

Data/Parameter	$EF_{grid, CM, y}$
Unit	tCO <sub>2</sub> /MWh
Description	Combined margin emission factor of the grid
Source of data	Central Electricity Authority: "CO <sub>2</sub> Baseline Database for Indian Power Sector", Version 9
Value(s) applied	0.9750 tCO <sub>2</sub> /MWh (for the NEWNE Grid)(now part of Unified Indian Grid)
Choice of data or measurement methods and procedures	The combined margin emission factor is used to calculate the baseline emissions. The build margin emission factor has been deduced from CO <sub>2</sub> database of CEA. The build margin emissions factor has been considered for the most recent year available at the time of submission of the CDM-PDD to the DOE for validation
Purpose of data/parameter	For the calculation of the Baseline Emission
Additional comments	This parameter is fixed ex-ante for the entire crediting period.

## D.2. Data and parameters monitored

Data/Parameter	$EG_{BL, Gujarat}$
Unit	MWh
Description	Quantity of net electricity supplied to the grid from the project activity in year y in the State of Gujarat
Measured/calculated/default	Measured
Source of data	Certificate for share of electricity issued by SLDC (State Load Dispatch Center)
Value(s) of monitored parameter	6445.159
Monitoring equipment	3 Phase 4 Wire Electronic Trivector meters are used for monitoring. Meter details are given in Annexure 1.
Measuring/reading/recording frequency	Data monitored continuously. Recording frequency is monthly.
Calculation method (if applicable)	-

QA/QC procedures	<p>The energy meters used are ABT meters which are of accuracy class of at least 0.2s. The meters are monitored continuously &amp; cumulative readings are taken at the end of the month by joint meter reading procedure. These are sealed by respective state SEB to avoid malfunctioning with meter readings. The officials frequently check the meters for tampering and malfunctioning with the meters. Meter is calibrated once in 3 years by the authority in the presence of O&amp;M Contractor / investors representatives and respective state SEB officials.</p> <p>Cross Checking: The net electricity supplied to grid on the monthly Joint Energy Meter Reading Report is cross checked with the value of electricity as being offset for the captive consumption. The electricity bill of the entity is checked to confirm the values.</p>
Purpose of data/parameter	The parameter is used to calculate the baseline emissions.
Additional comments	All data used for emission reduction calculation will be archived for 2 years after the end of last crediting period.

<b>Data/Parameter</b>	<b>EG<sub>BL,y, MH</sub></b>
Unit	<b>MWh</b>
Description	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh) in the state of Maharashtra
Measured/calculated/default	Calculated
Source of data	Credit Report as per Monthly Generation Report
Value(s) of monitored parameter	46,937.626
Monitoring equipment	3 Phase 4 Wire Trivector meter is used for monitoring. Meter details are given in Annexure 1.
Measuring/reading/recording frequency	Monthly
Calculation method (if applicable)	<p>The Net electricity supplied to the grid by the project activity is calculated as a difference of electricity exported to the grid, electricity imported from the grid obtained from joint meter reading certificates/credit notes issued by MSEDCL as per below equation:</p> $EG_{BL,y} = EG_{Export} - EG_{Import}$
QA/QC procedures	<p>The energy meters used are ABT meters which are of accuracy class of at least 0.2s. The meters are monitored continuously &amp; cumulative readings are taken at the end of the month by joint meter reading procedure. These are sealed by respective state SEB to avoid malfunctioning with meter readings. Annual calibration of all the meters is undertaken at required. The meters are of accuracy class 0.2.</p> <p>Cross Checking: Quantity of net electricity supplied to the grid is cross checked from the invoices raised by the project proponent to the State Electricity Board.</p>
Purpose of data/parameter	The Data/Parameter is required to calculate the baseline emission.
Additional comments	Data will be archived electronically for a period of 2 years beyond the end of crediting period.

### D.3. Implementation of sampling plan

Sampling is not applicable for this project activity

**SECTION E. Calculation of emission reductions or net anthropogenic removals****E.1. Calculation of baseline emissions or baseline net removals**

As per para 11 of the methodology AMS-I.D Version 17

“The baseline emissions are the product of electrical energy baseline  $EG_{BL,y}$  expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor (in  $tCO_2/MWh$ ).”

$$BE_y = EG_{BL,y} \times EF_{grid,CM,y}$$

$BE_y$	Baseline Emissions in year y; $tCO_2$
$EG_{BL,y}$	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
$EF_{grid,CM,y}$	$CO_2$ emission factor of the grid in year y; $tCO_2/MWh$

**Baseline Emission factor = 0.9750  $tCO_2/MWh$**

Baseline Emission = 53,382.785 MWh  $\times$  0.975  $tCO_2/MWh$  = 52,048  $tCO_2$  (Rounded Down Value).

**E.2. Calculation of project emissions or actual net removals**

For most renewable power generation projects activities  $PE_y = 0$ . As per applied methodology only emission associated with the fossil fuel combustion, emission from operation of geo-thermal power plants due to release of non-condensable gases, emission from water reservoir of Hydro should be accounted for the project emission. Since the project activity is a wind power project hence no such emission sources are applicable.

$$PE_y = 0$$

**E.3. Calculation of leakage emissions**

Since project does not involve transfer of any energy generating equipment from another activity thus leakage is zero for the project.

$$LE_y = 0$$

**E.4. Calculation of emission reductions or net anthropogenic removals**

	Baseline GHG emissions or baseline net GHG removals ( $t CO_2e$ )	Project GHG emissions or actual net GHG removals ( $t CO_2e$ )	Leakage GHG emissions ( $t CO_2e$ )	GHG emission reductions or net anthropogenic GHG removals ( $t CO_2e$ )			
				Before 01/01/2013	From 01/01/2013 until 31/12/2020	From 01/01/2021	Total amount
<b>Total</b>	52,048	0	0	0	52,048	0	52,048

**E.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the registered PDD**

Amount achieved during this monitoring period ( $t CO_2e$ )	Amount estimated ex ante for this monitoring period in the PDD ( $t CO_2e$ )
52,048	72,858

**E.5.1. Explanation of calculation of “amount estimated ex ante for this monitoring period in the PDD”**

Start date of the monitoring Period	22/04/2016
End date of monitoring period	31/10/2020
Number of days in monitoring period	1,654
Annual estimated reductions as per the PDD	16,078 tCO <sub>2</sub>
Estimated emission reductions for this monitoring period	72,858
Actual emission reductions for this monitoring period	52,048
Percentage deviation of actual reductions as compared to estimated reductions for this monitoring period	28.56%

**E.6. Remarks on increase in achieved emission reductions**

The actual emission reduction is 28.56% less than the estimated emission reduction for this project. This is a wind power project and so the electricity generation through this project isn't under the control of Project Proponent and so the deviation is acceptable.

**E.7. Remarks on scale of small-scale project activity**

The project activity remained within the limit of small scale project activity in each year of the crediting period as the emission reductions are less than the limit of small scale CDM Project activity.

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**Annexure 1: Meter Details**

Meter No	Meter Type	WTG ID	Make	Accuracy Class	Calibration Date	Error Factor considered due to delay in calibration
HT01140155	Main Meter	MV2T-18 <sup>3</sup>	Wallaby	0.2	16/07/2015, 20/09/2017, 27/06/2018, 20/09/2019, 20/08/2020	July 2016 to September 2017, June 2019 to September 2019, September 2020 to October 2020
		MV2T-19				
		MV2T-20				
HT01140156	Check Meter	MV2T-18	Wallaby	0.2	16/07/2015, 20/09/2017, 27/06/2018, 20/09/2019, 20/08/2020	April 2016 to September 2017, September 2018 to September 2019, September 2020 to October 2020
		MV2T-19				
		MV2T-20				
HT01140166	Main Meter	MV2T-61 <sup>4</sup>	Wallaby	0.2	20/09/2017, 20/09/2019, 20/08/2020	April 2016 to September 2017, September 2018 to September 2019, September 2020 to October 2020
HT01140167	Check Meter	MV2T-61	Wallaby	0.2	20/09/2017, 27/06/2018, 20/09/2019, 20/08/2020	
GJ-1934-A	Main Meter	WWIL/800/13-14/3420	L&T	0.2	27/12/2019	April 2016 to December 2019
GJ-2360-A	Check Meter	WWIL/800/13-14/3420	L&T	0.2	27/12/2019	

<sup>3</sup> After commissioning MV2T-18, MV2T-19 and MV2T-20 were shut down due to construction work in sub-station and these three WTGs were connected with grid on December 2015

<sup>4</sup> After commissioning MV2T-61 was shut down due to construction work in sub-station and this WTG was connected with grid on November 2015

## Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
08.0	6 April 2021	Revision to: <ul style="list-style-type: none"> <li>• Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).</li> </ul>
07.0	31 May 2019	Revision to: <ul style="list-style-type: none"> <li>• Ensure consistency with version 02.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN);</li> <li>• Add a section on remarks on the observance of the scale limit of small-scale project activity during the crediting period;</li> <li>• Add "changes specific to afforestation or reforestation project activity" as a possible post-registration changes;</li> <li>• Clarify the reporting of net anthropogenic GHG removals for A/R project activities between two commitment periods;</li> <li>• Make editorial improvements.</li> </ul>
06.0	7 June 2017	Revision to: <ul style="list-style-type: none"> <li>• Ensure consistency with version 01.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN);</li> <li>• Make editorial improvements.</li> </ul>
05.1	4 May 2015	Editorial revision to correct version numbering.
05.0	1 April 2015	Revisions to: <ul style="list-style-type: none"> <li>• Include provisions related to delayed submission of a monitoring plan;</li> <li>• Provisions related to the Host Party;</li> <li>• Remove reference to programme of activities;</li> <li>• Overall editorial improvement.</li> </ul>
04.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> <li>• Include the Attachment: Instructions for filling out the monitoring report form (these instructions supersede the "Guideline: Completing the monitoring report form" (Version 04.0));</li> <li>• Include provisions related to standardized baselines;</li> <li>• Add contact information on a responsible person(s)/ entity(ies) for completing the CDM-MR-FORM in A.6 and Appendix 1;</li> <li>• Change the reference number from <i>F-CDM-MR</i> to <i>CDM-MR-FORM</i>;</li> <li>• Editorial improvement.</li> </ul>
03.2	5 November 2013	Editorial revision to correct table in page 1.
03.1	2 January 2013	Editorial revision to correct table in section E.5.

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	3 December 2012	Revision required to introduce a provision on reporting actual emission reductions or net GHG removals by sinks for the period up to 31 December 2012 and the period from 1 January 2013 onwards (EB 70, Annex 11).
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01.0	28 May 2010	EB 54, Annex 34. Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: monitoring report		