



**Monitoring report form for CDM project activity  
(Version 09.0)**

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

**MONITORING REPORT**

<b>Title of the project activity</b>	Wind power project in Jamnagar District, Gujarat, India		
<b>UNFCCC reference number of the project activity</b>	8324		
<b>Version number of the PDD applicable to this monitoring report</b>	03		
<b>Version number of this monitoring report</b>	00		
<b>Completion date of this monitoring report</b>	04/02/2022		
<b>Monitoring period number</b>	02		
<b>Duration of this monitoring period</b>	01/12/2013 to 22/11/2019 (first and last days included)		
<b>Monitoring report number for this monitoring period</b>	NA		
<b>Project participants</b>	Torrent Power Limited		
<b>Host Party</b>	India		
<b>Applied methodologies and standardized baselines</b>	ACM002-“Consolidated baseline methodology for grid-connected electricity generation from renewable sources”  Approved consolidated baseline methodology ACM0002 (Version 12.3.0, EB 66)		
<b>Sectoral scopes</b>	Sectoral Scope 01: 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>	<b>Amount achieved before 1 January 2013</b>	<b>Amount achieved from 1 January 2013 until 31 December 2020</b>	<b>Amount achieved from 1 January 2021</b>
	0	512,885	0
<b>Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante for this monitoring period in the PDD</b>	510,050 (calculated value for this monitoring period)		

## SECTION A. Description of project activity

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

>>

#### (a) Purpose of the project activity and the measures taken for GHG emission reductions:

The purpose of the project activity is to utilize wind energy for generation of electricity. The project activity reduces anthropogenic emissions of greenhouse gases (GHG's) in the atmosphere by displacing electricity delivered to the Northern, Eastern, Western, and North Eastern (NEWNE) grid that would have otherwise been generated by the operation of grid-connected power plants (mainly fossil-fuel based) and by the addition of new generation sources in the grid. The project activity is generating approximately 89,506 MWh of electricity per annum which is being exported to the NEWNE grid of India.

The project activity involves power generation from wind energy, hence there are no GHG emissions involved with the generation of electricity in the project activity.

#### (b) Brief description of the installed technology and equipment:

The project activity involves installation of a 49.6 MW wind power project in the state of Gujarat in India. It involves development, supply, erection, commissioning and operation & maintenance of Enercon E-53 wind turbines of 800 kW each. The Wind Turbine Generators (WTGs) generates 3-phase power at 400V, which is stepped up to 33 kV at WTG transformer and further stepped up to 220kV at wind farm substation. The design life of the WTG is 20 years.

Some of the advanced features of the E-53 turbine are

- Gearless Design resulting in reduced mechanical stress, increased technical service life of the equipment and lower downtime and associated maintenance costs.
- Synchronous generator drawing much lower quantity of reactive power.
- High-efficiency blade with root spoilers and winglet tips enabling more energy to be extracted from the same swept area.

#### (c) Relevant dates for project activity:

Commissioning dates of WTGs in the project activity: The first and last WTG under the project activity were commissioned on 04/02/2012 and 14/03/2012 respectively. The dates for commissioning of all 62 WTGs are provided in section B.1 of this monitoring report.

Continued operation periods: The project activity is in operation from the date of commissioning.

Date of project registration with CDM-UNFCCC: 23/11/2012<sup>1</sup>

First monitoring period: 23/11/2012 – 30/11/2013 (first and last days included).

Second monitoring period: 01/12/2013 - 22/11/2019 (first and last days included). The monitoring period starts from 00.00 hours (Indian Standard Time (IST) of 01/12/2013 and ends on 24.00 hours (IST) of 22/11/2019.

#### (d) Total GHG emission reductions achieved in this monitoring period:

The total GHG emission reductions achieved in this 2<sup>nd</sup> monitoring period i.e. for 01/12/2013 to 22/11/2019 is 512,885 tCO<sub>2</sub>e.

---

<sup>1</sup> <http://cdm.unfccc.int/Projects/DB/SGS-UKL1353506542.98/view>

**A.2. Location of project activity**

- (a) **Host Party(ies):** India  
 (b) **Region/State/Province etc.:** State of Gujarat  
 (c) **City/Town/Community etc.:** The project is located in Jamnagar and Devbhumi Dwarka districts and spread across the following geographies:

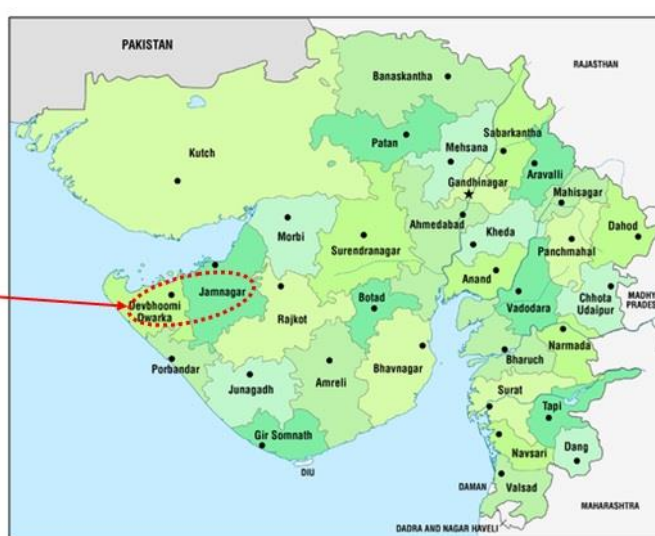
Sr. No	Taluka	Villages
1.	Bhanvad	Jampar, Morzar, Chokhanda, Shedhakhai, Kabarka
2.	Lalpur	Dharampur, Kathitad, Tebhda, Govana, Bhangol
3.	Jamjodhpur	Ghunda

- (d) **Physical / Geographical location:**  
 Project activity site map:



Host Country – India

Project activity site is located in The Host Country of India



State: Gujarat

Districts: Jamnagar and Devbhumi Dwarka

Project activity site is located in The State of Gujarat, Districts Jamnagar and Devbhumi Dwarka

The geographical co-ordinates for each location are as follows:

Sr. No.	Location No.	Village	Taluka	District	Latitude			Longitude		
					Deg	Min	Sec	Deg	Min	Sec
1	74	Govana	Lalpur	Jamnagar	22	8	15.2	69	53	55.3
2	225	Bhangol	Lalpur	Jamnagar	22	6	24.2	69	49	28
3	226	Bhangol	Lalpur	Jamnagar	22	6	14.6	69	49	56
4	227	Bhangol	Lalpur	Jamnagar	22	6	11.4	69	49	37.7
5	228	Bhangol	Lalpur	Jamnagar	22	6	3.5	69	49	39.7
6	229	Bhangol	Lalpur	Jamnagar	22	5	55.3	69	49	42
7	230	Bhangol	Lalpur	Jamnagar	22	5	46.9	69	49	32
8	231	Bhangol	Lalpur	Jamnagar	22	6	33.5	69	50	10.8
9	232	Bhangol	Lalpur	Jamnagar	22	6	28.9	69	50	25.7

10	233	Bhangol	Lalpur	Jamnagar	22	6	22.4	69	50	28.9
11	234	Bhangol	Lalpur	Jamnagar	22	6	6.1	69	50	32.7
12	235	Bhangol	Lalpur	Jamnagar	22	5	20.5	69	49	25.7
13	265	Jampar	Bhanvad	Devbhumi Dwarka	22	2	13.9	69	45	53.6
14	266	Morzar	Bhanvad	Devbhumi Dwarka	22	2	12.7	69	46	26.1
15	267	Morzar	Bhanvad	Devbhumi Dwarka	22	2	23.4	69	46	29
16	269	Chokhanda	Bhanvad	Devbhumi Dwarka	22	2	54.9	69	46	59.8
17	270	Chokhanda	Bhanvad	Devbhumi Dwarka	22	3	12.6	69	46	51.4
18	272	Shedhakhai	Bhanvad	Devbhumi Dwarka	22	2	20.8	69	47	53.7
19	274	Shedhakhai	Bhanvad	Devbhumi Dwarka	22	2	10.7	69	48	26.6
20	275	Shedhakhai	Bhanvad	Devbhumi Dwarka	22	2	8.5	69	48	35.7
21	276	Shedhakhai	Bhanvad	Devbhumi Dwarka	22	2	31.2	69	48	35
22	277	Shedhakhai	Bhanvad	Devbhumi Dwarka	22	2	41.8	69	48	27.1
23	278	Kabarka	Bhanvad	Devbhumi Dwarka	22	2	23.2	69	49	34.4
24	279	Kabarka	Bhanvad	Devbhumi Dwarka	22	2	17.6	69	49	50
25	280	Kabarka	Bhanvad	Devbhumi Dwarka	22	2	10.2	69	49	47.8
26	281	Kabarka	Bhanvad	Devbhumi Dwarka	22	2	9.9	69	50	0.7
27	285	Kabarka	Bhanvad	Devbhumi Dwarka	22	1	55.2	69	50	26.5
28	287	Kabarka	Bhanvad	Devbhumi Dwarka	22	1	43.3	69	49	52.9
29	288	Kabarka	Bhanvad	Devbhumi Dwarka	22	1	30.4	69	49	50.4
30	289	Kabarka	Bhanvad	Devbhumi Dwarka	22	1	43.4	69	49	33.9
31	290	Morzar	Bhanvad	Devbhumi Dwarka	22	0	47.6	69	48	44.6
32	291	Morzar	Bhanvad	Devbhumi Dwarka	22	0	39.6	69	48	50
33	375	Govana	Lalpur	Jamnagar	22	7	58	69	53	35.7
34	376	Govana	Lalpur	Jamnagar	22	8	13.2	69	53	35.8
35	377	Govana	Lalpur	Jamnagar	22	8	7.1	69	53	54.2
36	382	Dharampur	Lalpur	Jamnagar	22	6	45.3	69	54	57.7
37	383	Dharampur	Lalpur	Jamnagar	22	6	44.6	69	54	39.4
38	393	Kathitad	Lalpur	Jamnagar	22	4	48.7	69	55	17.3
39	396	Dharampur	Lalpur	Jamnagar	22	5	23.3	69	55	55.8
40	401	Tebhda	Lalpur	Jamnagar	22	5	54.1	69	56	44.5
41	402	Tebhda	Lalpur	Jamnagar	22	6	1.7	69	56	42.5
42	403	Tebhda	Lalpur	Jamnagar	22	6	5	69	56	30.7
43	405	Tebhda	Lalpur	Jamnagar	22	6	30.4	69	56	28
44	406	Dharampur	Lalpur	Jamnagar	22	6	57.4	69	56	20.9

45	407	Dharampur	Lalpur	Jamnagar	22	7	25.1	69	56	16.4
46	408	Dharampur	Lalpur	Jamnagar	22	7	32.9	69	56	16.4
47	409	Dharampur	Lalpur	Jamnagar	22	7	49.7	69	55	56.3
48	411	Tebhda	Lalpur	Jamnagar	22	7	33.9	69	57	3.5
49	412	Tebhda	Lalpur	Jamnagar	22	7	29	69	57	11.3
50	416	Tebhda	Lalpur	Jamnagar	22	7	0.2	69	57	16.8
51	417	Tebhda	Lalpur	Jamnagar	22	6	52.6	69	57	15
52	418	Tebhda	Lalpur	Jamnagar	22	6	49.9	69	57	26.3
53	419	Tebhda	Lalpur	Jamnagar	22	6	43.1	69	57	32.7
54	420	Tebhda	Lalpur	Jamnagar	22	6	38.2	69	57	33.9
55	450	Ghunda	Jamjodhpur	Jamnagar	22	4	2.3	69	58	18.7
56	451	Ghunda	Jamjodhpur	Jamnagar	22	3	52.9	69	58	3.2
57	452	Ghunda	Jamjodhpur	Jamnagar	22	3	59	69	57	46.9
58	454	Ghunda	Jamjodhpur	Jamnagar	22	3	17.6	69	57	17.1
59	455	Ghunda	Jamjodhpur	Jamnagar	22	3	13	69	57	19.3
60	456	Ghunda	Jamjodhpur	Jamnagar	22	3	7.9	69	57	21.8
61	458	Ghunda	Jamjodhpur	Jamnagar	22	2	54.5	69	57	52.8
62	459	Ghunda	Jamjodhpur	Jamnagar	22	2	50.8	69	58	7.8

### 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)	Torrent Power Limited (Private entity)	No

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

&gt;&gt;

**Title:** “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”

**Reference:** Approved consolidated baseline methodology ACM0002 (Version 12.3.0, Sectoral Scope: 01, EB 66)

#### Reference to other methodologies or tools:

- Tool to calculate the emission factor for an electricity system – Version 02.2.1, EB 63
- Tool for the demonstration and assessment of additionality – Version 06.0.0, EB 65

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

&gt;&gt;

(a) **Type of crediting period:** Renewable crediting period

(b) **Start date of crediting period:** 23/11/2012 (first crediting period)

(c) **End date of Crediting Period:** 22/11/2019 (first crediting period)

(d) **Length of crediting period:** 07 years 00 months (first crediting period)

## SECTION B. Implementation of project activity

### B.1. Description of implemented project activity

&gt;&gt;

**(a) Description of the installed technology, technical processes and equipment:**

The project activity involves installation and operation of 49.6 MW wind power project in the State of Gujarat in India. It consists of 62 Enercon E-53 WTGs of 800 kW each. The WTGs of the project are connected to Tebhda substation at Jamnagar District in Gujarat. The WTGs generates 3-phase power at 400V, which is stepped up to 33 kV at WTG transformer and further stepped up to 220kV at Tebhda substation. The design life of the WTG is 20 years.

The technical specification related to the project activity is as follows:

Sr. No	Description	Technical specification
1	Turbine Model	Enercon E-53
2	Rated Power	800 kW
3	Rotor diameter	52.9 m
4	Hub height	75 m
5	Tower	74 m (Concrete and steel segments)
6	Turbine Type	Direct driven, horizontal axis wind turbine with variable rotor speed.
7	Power regulation	Independent pitch system for each blade
8	Cut-in wind speed	2.5 m/s
9	Rated wind speed	12 m/s
10	Cut-out Wind speed	28 – 34 m/s
11	Extreme Wind speed	59.5 m/s
12	Rated rotational speed	29 rpm
13	Operating range rot. Speed	12 – 29 rpm
14	Orientation	Upwind
15	No. of Blades	3
16	Blade Material	Fibre Glass Epoxy reinforced
17	Gearbox type	Gearless
19	Braking	Aerodynamic
20	Output Voltage	400 V
21	Yaw System	Active yawing with 4 electric yaw drives with brake motor.
22	Power Factor	Near unity power factor at all times
23	Reactive Power Drawl	Minimum drawl (less than 1% of kWh generated) of reactive power from the grid.

Some of the advanced features of the E-53 turbine are:

**Gearless Design:** The gearless mechanism has fewer rotating components resulting in reduced mechanical stress, increased technical service life of the equipment and lower downtime and associated maintenance costs. Additionally, the synchronous generator employed in the E-53, draws a much lower quantity of reactive power as compared to the induction generator used in conventional wind turbines.

**Blade Technology:** The blade design features a high-efficiency blade with root spoilers and winglet tips. Such a design enables more energy to be extracted from the same swept area when compared with a conventional blade design and reduces noise from the blade tips.

Further, the WTGs are designed to suit Indian wind conditions.

The WTGs of the project are divided into clusters and each cluster has dedicated metering system (Cluster Meter). Different clusters ultimately lead to the shared Gujarat Energy Transmission Corporation Limited (GETCO) main meter at the Tebhda substation (Main Meter). Electricity monitoring takes place at the Cluster Meters and Main Meter. The other project owners' WTGs are also connected to Tebhda substation. The net electricity generation supplied from the project

activity to the NEWNE grid is calculated by apportioning generation recorded at Main Meter in the ratio of generation recorded at Cluster Meters. The diagram of the project boundary is provided in "SECTION C. Description of monitoring system".

The technology used in the project activity is environmentally safe and sound.

The project activity involves power generation from wind energy, hence there are no GHG emissions involved with the generation of electricity in the project activity.

**(b) Information on the implementation and actual operation of the project activity:**

The project activity has been implemented as described in the registered PDD. The first and last WTG under the project activity were commissioned on 04/02/2012 and 14/03/2012 respectively. The details of commissioning of all 62 WTGs are as follows:

Sr. No.	Location No.	WTG ID No.	Date of Commissioning
1	74	EIL / 800 / 11-12 / 2454	18/02/2012
2	225	EIL / 800 / 11-12 / 2367	13/02/2012
3	226	EIL / 800 / 11-12 / 2448	07/02/2012
4	227	EIL / 800 / 11-12 / 2368	04/02/2012
5	228	EIL / 800 / 11-12 / 2369	04/02/2012
6	229	EIL / 800 / 11-12 / 2370	04/02/2012
7	230	EIL / 800 / 11-12 / 2371	04/02/2012
8	231	EIL / 800 / 11-12 / 2372	04/02/2012
9	232	EIL / 800 / 11-12 / 2373	04/02/2012
10	233	EIL / 800 / 11-12 / 2374	04/02/2012
11	234	EIL / 800 / 11-12 / 2375	04/02/2012
12	235	EIL / 800 / 11-12 / 2376	04/02/2012
13	265	EIL / 800 / 11-12 / 2390	13/02/2012
14	266	EIL / 800 / 11-12 / 2391	13/02/2012
15	267	EIL / 800 / 11-12 / 2392	13/02/2012
16	269	EIL / 800 / 11-12 / 2388	13/02/2012
17	270	EIL / 800 / 11-12 / 2389	13/02/2012
18	272	EIL / 800 / 11-12 / 2383	13/02/2012
19	274	EIL / 800 / 11-12 / 2384	13/02/2012
20	275	EIL / 800 / 11-12 / 2385	13/02/2012
21	276	EIL / 800 / 11-12 / 2386	13/02/2012
22	277	EIL / 800 / 11-12 / 2387	13/02/2012
23	278	EIL / 800 / 11-12 / 2449	18/02/2012
24	279	EIL / 800 / 11-12 / 2377	09/02/2012
25	280	EIL / 800 / 11-12 / 2378	09/02/2012
26	281	EIL / 800 / 11-12 / 2379	09/02/2012
27	285	EIL / 800 / 11-12 / 2380	09/02/2012
28	287	EIL / 800 / 11-12 / 2381	09/02/2012
29	288	EIL / 800 / 11-12 / 2382	09/02/2012
30	289	EIL / 800 / 11-12 / 2450	18/02/2012
31	290	EIL / 800 / 11-12 / 2393	09/02/2012
32	291	EIL / 800 / 11-12 / 2394	09/02/2012

33	375	EIL / 800 / 11-12 / 2451	18/02/2012
34	376	EIL / 800 / 11-12 / 2452	21/02/2012
35	377	EIL / 800 / 11-12 / 2453	21/02/2012
36	382	EIL / 800 / 11-12 / 2396	05/03/2012
37	383	EIL / 800 / 11-12 / 2397	05/03/2012
38	393	EIL / 800 / 11-12 / 2395	12/03/2012
39	396	EIL / 800 / 11-12 / 2398	05/03/2012
40	401	EIL / 800 / 11-12 / 2403	03/03/2012
41	402	EIL / 800 / 11-12 / 2404	03/03/2012
42	403	EIL / 800 / 11-12 / 2405	03/03/2012
43	405	EIL / 800 / 11-12 / 2406	03/03/2012
44	406	EIL / 800 / 11-12 / 2399	03/03/2012
45	407	EIL / 800 / 11-12 / 2400	05/03/2012
46	408	EIL / 800 / 11-12 / 2401	03/03/2012
47	409	EIL / 800 / 11-12 / 2402	03/03/2012
48	411	EIL / 800 / 11-12 / 2407	12/03/2012
49	412	EIL / 800 / 11-12 / 2408	03/03/2012
50	416	EIL / 800 / 11-12 / 2409	05/03/2012
51	417	EIL / 800 / 11-12 / 2410	03/03/2012
52	418	EIL / 800 / 11-12 / 2411	03/03/2012
53	419	EIL / 800 / 11-12 / 2412	03/03/2012
54	420	EIL / 800 / 11-12 / 2413	05/03/2012
55	450	EIL / 800 / 11-12 / 2414	14/03/2012
56	451	EIL / 800 / 11-12 / 2416	12/03/2012
57	452	EIL / 800 / 11-12 / 2415	12/03/2012
58	454	EIL / 800 / 11-12 / 2417	14/03/2012
59	455	EIL / 800 / 11-12 / 2418	12/03/2012
60	456	EIL / 800 / 11-12 / 2419	12/03/2012
61	458	EIL / 800 / 11-12 / 2420	12/03/2012
62	459	EIL / 800 / 11-12 / 2421	12/03/2012

All the WTGs are in operation since their commissioning.

The total operational hours of the project activity including downtime details for this monitoring period are as follows:

<b>Total hours of operation</b>	<b>Lack of Wind (HH:MM)</b>	<b>Machine Availability (%)</b>	<b>Grid Availability (%)</b>
2990814:00:00	149739:54:00	98.652	98.343

The operational data for each WTG is provided in [Annexure 1](#) of this monitoring report.

The major reasons for downtime of WTGs are scheduled maintenance, breakdown maintenance due to machine and grid related faults, generation back-down, etc.



**(c) Events or situations that may impact the applicability of the applied methodology:**

No event or situation has taken place during this monitoring period which might impact the applicability of the applied methodology.

No request for prior approval by the Board of changes to the registered CDM project activity has been submitted as no changes have occurred or are expected to occur to the registered CDM project activity.

**B.2. Post-registration changes****B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents**

>>

No request for deviation has been applied for this Monitoring Period.

**B.2.2. Corrections**

>>

No request for corrections to project information or parameters fixed at validation has been applied for this Monitoring Period

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

>>

No changes to start date of crediting period have occurred during this monitoring period

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

>>

Monitoring plan included in registered PDD

**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**

>>

No request for permanent changes from registered monitoring plan or applied methodology has been applied for this Monitoring Period

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

>>

No changes to the project design have occurred during this Monitoring Period

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

>>

Not Applicable

**SECTION C. Description of monitoring system**

>>

**Background:**

ACM0002 (Version 12.3.0, EB 66) Sectoral Scope: 01, "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", by CDM - Meth Panel is used to monitor the emission reductions.

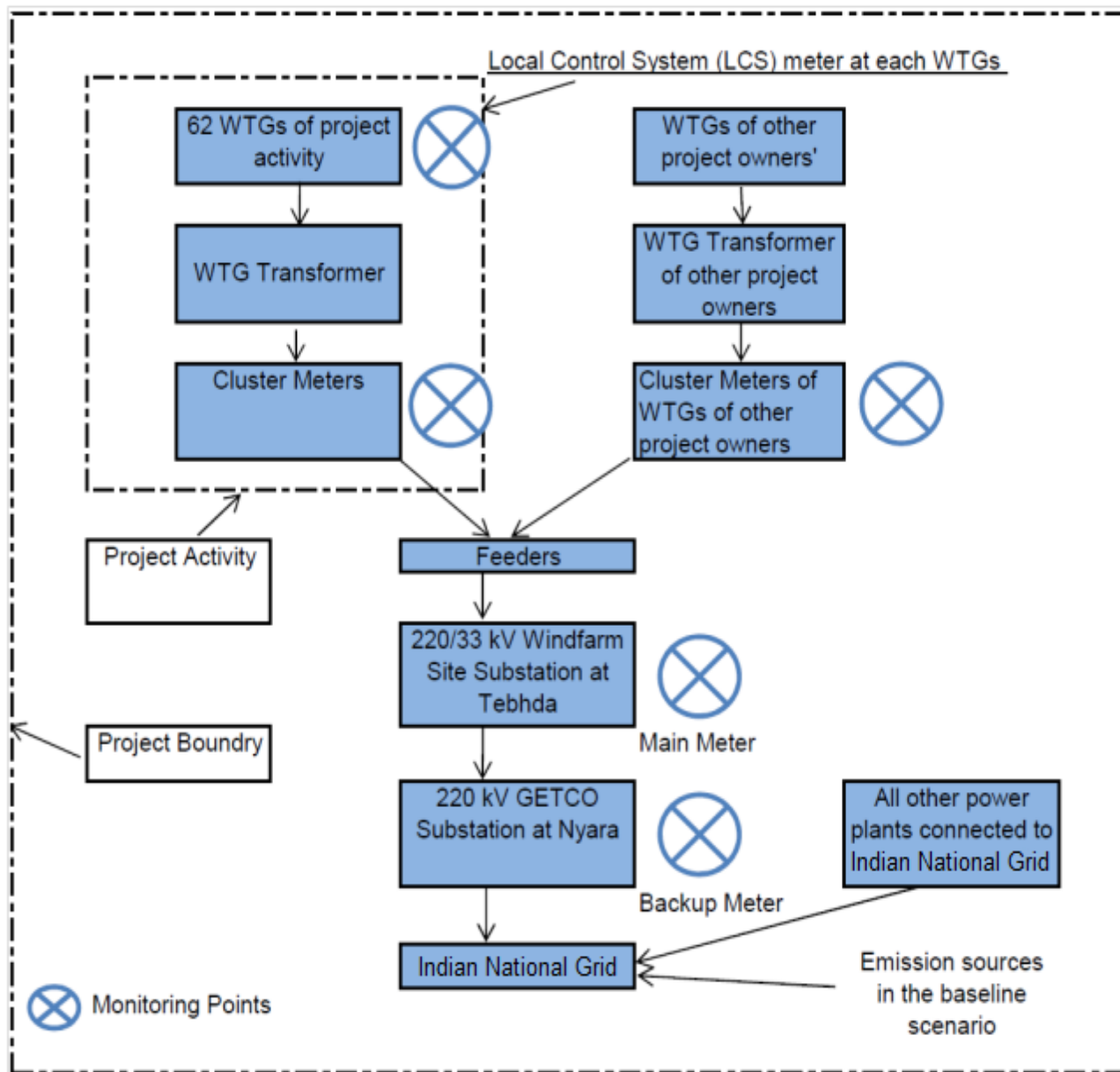
This methodology requires monitoring of the following:

- Electricity generation from the project activity; and

- Operating margin emission factor and build margin emission factor of the grid, where *ex post* determination of grid emission factor has been chosen

Since operating margin emission factor and build margin emission factor are determined *ex ante* monitoring of these parameters is not required.

**Diagram showing all relevant monitoring points:**



**Monitoring of electricity generation from the project activity including data collection procedures:**

- Quantity of net electricity generation supplied by the project plant/unit to the grid  
This is a calculated parameter based on the export and the import of the electricity by WTGs of project activity. However, following metering and recording procedures is followed for the calculation of net electricity generation supplied to the grid by project activity.

Metering:

The WTGs of the project are divided into clusters and each cluster has dedicated metering system (Cluster Meter - 0.2s). Different clusters ultimately lead to the shared GETCO main meter at the Tebhda substation (Main Meter) of accuracy class 0.2s. Data monitoring takes place at the Cluster Meters and Main Meter.

Measurement and recording:

The following parameters are measured continuously at substation Main Meter and recorded on monthly basis by GEDA/SLDC:

- (i) Electricity Export ( $EG_{PJ,export,y}$ ): The quantity of electricity supplied by the project plant/unit to the grid in year  $y$ ; and
- (ii) Electricity Import ( $EG_{PJ,import,y}$ ): The quantity of electricity delivered to the project plant/unit from the grid in year  $y$

The net electricity generation supplied to the grid in year  $y$  is a calculated value and would be determined as the difference between the electricity exported to the grid and the electricity imported from the grid by the project activity.

$$EG_{PJ,y} = EG_{PJ,export,y} - EG_{PJ,import,y}$$

The project activity has various clusters and each cluster has exclusive metering arrangement and the meter readings taken at these metering points i.e. Cluster Meters are provided by the representatives of O&M Contractor to Gujarat Electricity Development Authority (GEDA)/SLDC.

The WTGs of the project activity and WTGs of other project owners are connected to the substation Main Meter. GEDA/SLDC apportions the net electricity generation supplied to the grid recorded at Main Meter to all the project owners after adjusting transmission loss to the meter readings taken at dedicated Cluster Meters of different project owners. The procedure of apportionment is explained in subsequent point of this section. The meter reading is taken jointly by the representatives of O&M Contractor and GEDA/SLDC. The electricity from Tebhda substation is finally supplied to the GETCO substation at Nyara.

As per the current arrangement in the state of Gujarat, the net electricity generation supplied to the grid by the project owners is provided by SLDC in the share certificate of electricity generated. This certificate contains only the final value of the net electricity supplied and does not mention the values for  $EG_{PJ,export,y}$  and  $EG_{PJ,import,y}$ . The values for  $EG_{PJ,export,y}$  and  $EG_{PJ,import,y}$  are monthly recorded by GEDA/O&M representative/SLDC in form of Joint Meter Reading (JMR) and the same is not being provided to the project owners as per current procedures. Thus, the values of the net electricity generation supplied to the grid by the project activity are taken directly by the project proponent from the share certificate provided by SLDC for calculation of emission reductions as the  $EG_{PJ,export,y}$  and  $EG_{PJ,import,y}$  values are not available to the project participant and thus not being monitored in the monitoring plan.

SLDC-Gujarat is publishing the share certificate showing electricity generated by windfarm owners connected at Tebhda substation on its website<sup>2</sup> on a monthly basis. CDM compiler is downloading the SLDC share certificate of electricity generated at Tebhda substation

<sup>2</sup> [https://www.sldcguj.com/EnergyAccount/Energy\\_Block\\_New.php](https://www.sldcguj.com/EnergyAccount/Energy_Block_New.php)

from SLDC website periodically and records the net electricity supplied by project activity to the NEWNE grid ( $EG_{PJ,y}$ ) in CER calculation sheet. The CER calculation sheet is reviewed by CDM reviewer. The SLDC share certificate is archived in electronic and physical form by CDM compiler on a monthly basis. The organization structure, roles and responsibilities of personnel is detailed in subsequent paragraphs of this section.

b) Summarised quantity electricity generation recorded at LCS of WTG:

This parameter is not used for CER calculation as only net electricity generation supplied to the grid is used in calculation of emission reductions. However, the project participant is monitoring the generation recorded at Local Control System (LCS) of each WTG as it can be used to cross check the net electricity generation supplied to the grid.

The controller of each WTG is connected through SCADA system and generation of the same is continuously measured and daily recorded through SCADA system/ Centralized Monitoring System of O&M contractor.

The summarized generation of 62 WTGs is reported by the project participant on monthly basis and used to cross check the reported net electricity generation. However, this parameter would not exactly match with the net electricity generation supplied to the grid because of transmission losses but it can provide the approximate reference to the values reported.

The CDM compiler collects the generation data from the Centralized Monitoring System of O&M contractor and SCADA on a monthly basis and records  $EG_{LCS,y}$  in CER calculation sheet to cross check net electricity generation supplied to the grid. The CER calculation sheet is reviewed by CDM reviewer. The organization structure, roles and responsibilities of personnel is detailed in subsequent paragraphs of this section.

### Procedure for apportion of electricity generation recorded at Main Meter:

- Net electricity exported to the grid by the project activity

$$EG_{PJ,y} = EG_{PJ,export,y} - EG_{PJ,import,y}$$

Where,

$EG_{PJ,y}$  = Net Electricity exported by the project activity to the grid

$EG_{PJ,export,y}$  = Electricity exported by the project activity to the grid, calculated

$EG_{PJ,import,y}$  = Electricity imported by the project activity from the grid, calculated

- Electricity exported by the project activity to the grid

$$EG_{PJ,export,y} = EG_{GETCO, Export} \times EG_{Cluster, Export} / EG_{Cluster, WF, Export}$$

Where,

$EG_{GETCO, Export}$  = Electricity exported, as recorded at the Main Meter at Tebhda substation

$EG_{Cluster, Export}$  = Electricity exported by the project activity, as measured at Cluster Meter

$EG_{Cluster, WF, Export}$  = Electricity exported by all the wind farms (WTGs of project activity and WTGs of non-project activity) connected to Tebhda substation, as measured at Cluster Meter

- Electricity imported from the Grid by the project activity

$$EG_{PJ,import,y} = EG_{GETCO, Import} \times EG_{Cluster, Import} / EG_{Cluster, WF, Import}$$

Where,

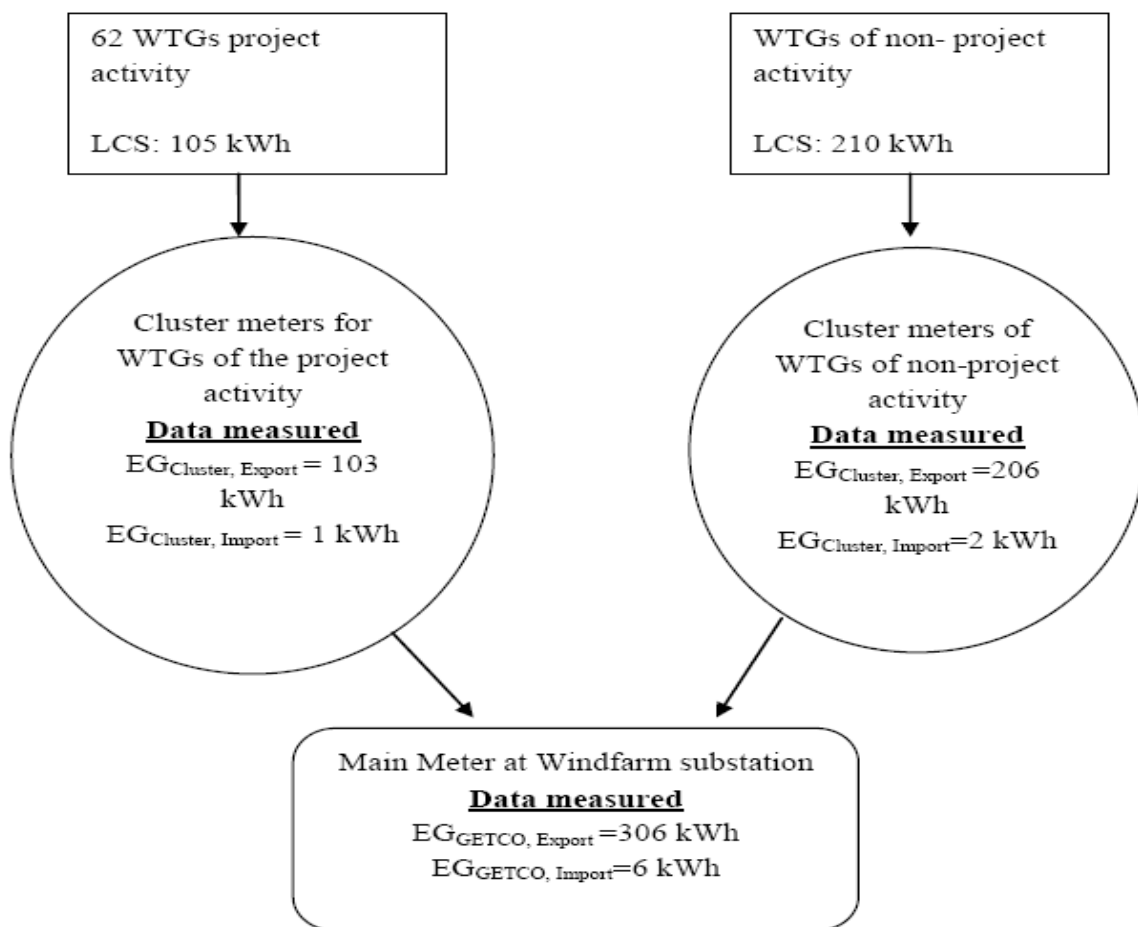
$EG_{GETCO, Import}$  = Electricity imported, as recorded at the Main Meter at Tebhda substation

$EG_{Cluster, Import}$  = Electricity imported by the project activity, as measured at Cluster Meter

$EG_{Cluster, WF, Import}$  = Electricity imported by all the wind farms (WTGs of project activity and WTGs of non-project activity) connected to Tebhda substation, as measured at Cluster Meter

The meter reading is taken jointly by representative of GEDA/SLDC and representatives of O&M contractor and recorded in form of JMR. The parameter such as  $EG_{GETCO, Export}$ ,  $EG_{GETCO, Import}$ ,  $EG_{Cluster, WF, Export}$ ,  $EG_{Cluster, WF, Import}$  used in calculation of  $EG_{PJ, y}$  are not available with project participant as per the current procedure followed in the state of Gujarat. Hence, these parameters are not monitored. Further, only data available with PP is  $EG_{PJ, y}$  (Net electricity exported by the project activity to the grid) which is sourced from share certificate issued by State Load Dispatch Centre (SLDC), Gujarat and LCS reading recorded through SCADA system/Centralised Monitoring System of O&M contractor. These both are included as the monitoring parameters.

The above apportioning procedure is explained in below example and diagram:



$$\begin{aligned}
 EG_{PJ, export, y} &= EG_{GETCO, Export} \times EG_{Cluster, Export} / EG_{Cluster, WF, Export} \\
 &= 306 \times 103 / (206 + 103) \\
 &= 102
 \end{aligned}$$

$$\begin{aligned}
 EG_{PJ, Import, y} &= EG_{GETCO, Import} \times EG_{Cluster, Import} / EG_{Cluster, WF, Import} \\
 &= 6 \times 1 / 3 \\
 &= 2
 \end{aligned}$$

$$\begin{aligned}
 EG_{PJ, y} &= EG_{PJ, export, y} - EG_{PJ, Import, y} \\
 &= 102 - 2
 \end{aligned}$$

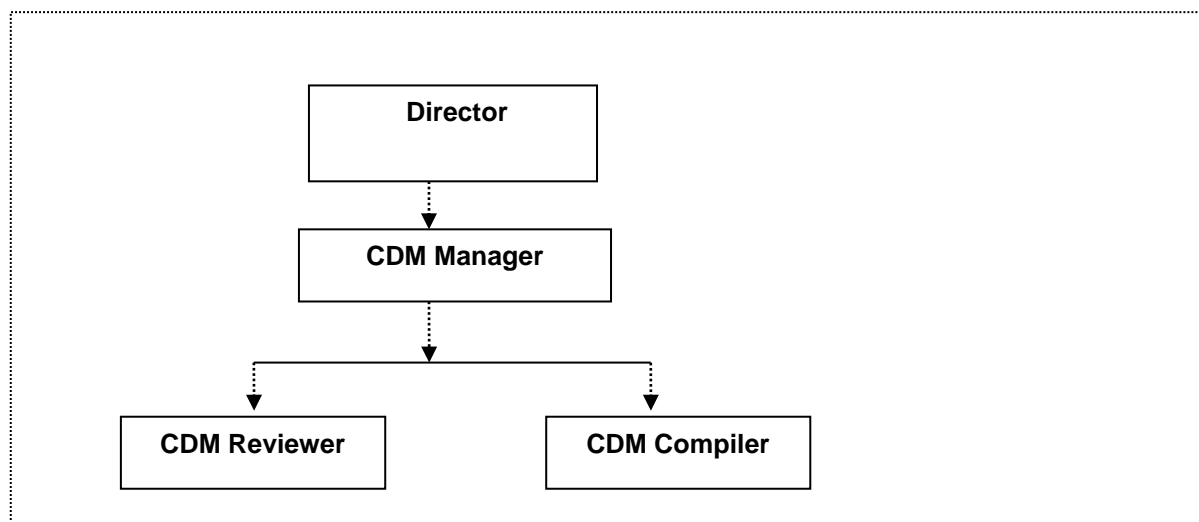
= 100 (this data is taken directly from the share certificate issued by SLDC on monthly basis and are used in calculation of emission reduction).

### **Description of organizational structures, roles and responsibilities:**

To ensure efficient operation and maintenance of all the WTGs, project proponent has entered into a comprehensive O&M agreement with Enercon India Limited (presently known as Wind World (India) Limited (WWIL)) (the “O&M contractor”). The O&M personnel are qualified engineers and are trained at the WTG manufacturing facility of WWIL at Daman for operating and ensuring optimum performance of the WTGs.

Wind World is an ISO 9001:2000 certified Quality Management system from Germanischer Lloyd. 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 & maintenance of the wind power project. Furthermore, project participant monitors the performance of the WTGs through SCADA system/Centralised monitoring system of O&M contractor.

#### A) CDM Organization Structure:



#### B) CDM responsibility matrix:

Sr. No.	Designation	Responsibilities
1	Director	<ul style="list-style-type: none"> <li>Implement the organization structure.</li> <li>Issue office orders, authorizing the CDM Manager to implement the PDD and the Monitoring plan and delegating to him all powers in relation thereto.</li> </ul>
2	CDM Manager	<ul style="list-style-type: none"> <li>Direct the CDM team (CDM Reviewer and CDM Preparer) in relation to conformance with PDD and monitoring plan.</li> <li>Storage of aggregated data</li> <li>Coordinate with DOE during verification process.</li> <li>Randomly check data wherever necessary to check the authenticity of data independently and take corrective actions wherever required.</li> <li>Resolve all conflicts in relation to CDM project activity.</li> <li>Implement the PDD and the Monitoring Plan.</li> </ul>
3	CDM Reviewer	<ul style="list-style-type: none"> <li>Review of Monitoring Report</li> <li>Report non-conformances with PDD, Monitoring plan and CDM manager's directions.</li> <li>Ensuring calibration of the monitoring equipment as and when required.</li> </ul>
4	CDM Compiler	<ul style="list-style-type: none"> <li>Data collection</li> <li>Data processing</li> <li>Calculate ER</li> <li>Preparation of Monitoring Report</li> </ul>

**Emergency Procedures:**

Refer QA/QC procedures in Section D.2 of this monitoring report

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

(Copy this table for each data or parameter.)

Data/Parameter	EF <sub>grid, OM,y</sub>
Unit	tCO <sub>2</sub> / MWh
Description	Operating Margin CO <sub>2</sub> emission factor of the grid (Indian National Grid)
Source of data	<p>"CO<sub>2</sub> Baseline Database for Indian Power Sector" Version 16.0 published by the Central Electricity Authority, Ministry of Power, Government of India.</p> <p>The "CO<sub>2</sub> Baseline Database for Indian Power Sector" is available at <a href="https://cea.nic.in/wp-content/uploads/baseline/2021/06/User_Guide_ver_16_2021-1.pdf">https://cea.nic.in/wp-content/uploads/baseline/2021/06/User_Guide_ver_16_2021-1.pdf</a></p>
Value(s) applied	0.9622
Choice of data or measurement methods and procedures	The value is calculated on <i>ex-ante</i> basis and it would remain same during second crediting period.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	NA

<b>Data/Parameter</b>	<b>EF<sub>grid, BM, y</sub></b>
Unit	tCO <sub>2</sub> / MWh
Description	Build Margin CO <sub>2</sub> emission factor of the grid (NEWNE Grid)
Source of data	“CO <sub>2</sub> Baseline Database for Indian Power Sector” Version 16.0 published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO <sub>2</sub> Baseline Database for Indian Power Sector” is available at <a href="https://cea.nic.in/wp-content/uploads/baseline/2021/06/User_Guide_ver_16_2021-1.pdf">https://cea.nic.in/wp-content/uploads/baseline/2021/06/User_Guide_ver_16_2021-1.pdf</a>
Value(s) applied	0.8682
Choice of data or measurement methods and procedures	The value is calculated on <i>ex-ante</i> basis and it would remain same during the first crediting period. For the second crediting period, the build margin emission factor will be updated based on the most recent information available on units already built at the time of submission of the request for renewal of the crediting period to the DOE. For the third crediting period, the build margin emission factor calculated for the second crediting period will be used.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	NA

<b>Data/Parameter</b>	<b>EF<sub>y</sub> Or EF<sub>grid, CM, ,y</sub></b>		
Unit	tCO <sub>2</sub> / MWh		
Description	Combined Margin CO <sub>2</sub> emission factor of the grid (Indian National Grid)		
Source of data	Estimated using following formula as per “Tool to Calculate the emission Factor for an Electricity System” Version 02.2.1  $EF_{grid, CM, ,y} = EF_{grid, OM, y} \times W_{OM} + EF_{grid, BM, y} \times W_{BM}$		
Value(s) applied	In case of wind power projects default weights of 0.75 for EF <sub>OM</sub> and 0.25 for EF <sub>BM</sub> are applicable as per “Tool to Calculate the emission Factor for an Electricity System” Version 02.2.1. <table border="1" data-bbox="518 1288 1391 1388"> <tr> <td>Combined Margin Emission Factor (EF<sub>y</sub> or EF<sub>grid, CM, ,y</sub>)</td><td><b>0.9387 tCO<sub>2</sub>/ MWh</b></td></tr> </table>	Combined Margin Emission Factor (EF <sub>y</sub> or EF <sub>grid, CM, ,y</sub> )	<b>0.9387 tCO<sub>2</sub>/ MWh</b>
Combined Margin Emission Factor (EF <sub>y</sub> or EF <sub>grid, CM, ,y</sub> )	<b>0.9387 tCO<sub>2</sub>/ MWh</b>		
Choice of data or measurement methods and procedures	The value is calculated on <i>ex-ante</i> basis.		
Purpose of data/parameter	Calculation of baseline emissions		
Additional comments	NA		

## D.2. Data and parameters monitored

<b>Data/Parameter</b>	<b>EG<sub>PJ, y</sub></b>
Unit	MWh
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year <i>y</i> .
Measured/calculated/default	Measured and Calculated
Source of data	Share Certificate issued by State Load Dispatch Centre (SLDC), Gujarat
Value(s) of monitored parameter	546,378.712



Monitoring equipment	<ol style="list-style-type: none"> <li>1. Main Meter at substation, Accuracy class: 0.2s</li> <li>2. Cluster Meter, Accuracy class: 0.2s</li> </ol> <p>Metering details and calibration information are as provided <u>Annexure 2</u>.</p>
Measuring/reading/recording frequency	<p>Measuring frequency: Continuous</p> <p>Frequency of recording data: Monthly</p>
Calculation method (if applicable)	Refer <u>Section C</u>
QA/QC procedures	<ul style="list-style-type: none"> <li>• The Main Meter located at the Tebhda substation and Cluster Meters are calibrated atleast once in three years. Apart from calibration, GETCO is carrying out the periodical testing, sealing and maintenance of the Main Meter.</li> <li>• The Tebhda substation is further connected to the GETCO substation at Nyara. The energy meters connected to GETCO substation are considered as the backup meters. If during meter testing the Main Meter at the wind farm site substation is found beyond the permissible limit of error, the meter reading would be taken from the backup meters located at the GETCO substation at Nyara after addition of average historical transmission losses.</li> <li>• If during meter testing, the Cluster Meter is found beyond the permissible limit of error, the sum of reading at Local Control System (LCS) meter located at each WTG of the project activity is provided to GEDA/SLDC for purpose of apportioning net electricity generation supplied to the grid. The LCS meters do not require calibration as the energy readings of electricity generated at the LCS meter is cross verified by the energy calculated by inverting system installed in the WTGs. In case there is any mismatch in the energy values recorded by the LCS meter and the energy values calculated by the inverting system; the WTG would stop working and generate the error report.</li> <li>• Thus, the QA/QC procedures are jointly implemented by GETCO and the project participant.</li> </ul> <p>The net electricity generation supplied by the project to the grid can be cross verified with records for sale of electricity and other records maintained by project participant relating to electricity generation by project such as LCS data.</p>
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	The data is being archived electronically/paper as available for the entire crediting period and 2 years post crediting period.

<b>Data/Parameter</b>	<b>EG<sub>LCS,y</sub></b>
Unit	MWh
Description	Summarised quantity electricity generation recorded at LCS of WTG
Measured/calculated/default	Measured
Source of data	Generation at LCS as recorded through SCADA system/ Centralised Monitoring System of O&M contractor
Value(s) of monitored parameter	564,791.727

Monitoring equipment	Local Control System (LCS) of WTGs
Measuring/reading/recording frequency	Measuring frequency: Continuous Frequency of recording data: Daily  (The summarized generation of 62 WTGs is reported by the project participant on monthly basis and this is used to cross check the reported net electricity generation. However, this parameter would not exactly match with the net electricity generation supplied to the grid because of transmission losses but it can provide the approximate reference to the values reported.)
Calculation method (if applicable)	Refer <u>Section C</u>
QA/QC procedures	The LCS meters do not require calibration as the energy readings of electricity generated at the LCS meter is cross verified by the energy calculated by inverting system installed in the WTGs. In case there is any mismatch in the energy values recorded by the LCS meter and the energy values calculated by the inverting system; the WTG would stop working and generate the error report.
Purpose of data/parameter	This parameter is not used for CER calculation as only net electricity generation supplied to the grid is used in calculation of emission reductions. However, the project participant is monitoring the generation recorded at LCS of each WTG as it can be used to cross check the net electricity generation supplied to the grid.
Additional comments	The data is being archived electronically/paper as available for the entire crediting period and 2 years post crediting period.

No request for temporary deviations or permanent changes from the registered monitoring plan or applied methodology has been submitted.

### D.3. Implementation of sampling plan

>>

No sampling approach is being followed by the Project Participant for monitoring the data and parameters as described above. Hence, this section is not applicable for the project activity.

## SECTION E. Calculation of emission reductions or net anthropogenic removals

### E.1. Calculation of baseline emissions or baseline net removals

>>

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

Where:

$BE_y$  = Baseline emissions in year  $y$  (tCO<sub>2</sub>e/yr);

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

$EF_{grid,CM,y}$  = Combined margin CO<sub>2</sub> emission factor of the grid (NEWNE Grid) in year  $y$

Duration (Monitoring Period)	Net electricity supplied to NEWNE grid ( $EG_{PJ,y}$ ) (Refer Section D.2)	Combined margin CO <sub>2</sub> emission factor for NEWNE grid ( $EF_{grid,CM,y}$ ) (Refer Section D.1)	Baseline emission ( $BE_y$ )
	MWh	tCO <sub>2</sub> /MWh	tCO <sub>2</sub> e
01/12/2013 to 22/11/2019	546,378.712	0.9387	512,885.697
<b>Total</b>	546,378.712	0.9387	512,885.697

\* Refer CER calculation worksheet

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

&gt;&gt;

As per ACM0002 (Version 12.3.0), the GHG emissions of the project activity is zero i.e.  $PE_y = 0$

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

&gt;&gt;

As per ACM0002 (Version 12.3.0), the leakage of the project activity is not considered i.e.  $LE_y = 0$

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

	Baseline GHG emissions or baseline net GHG removals (t CO <sub>2</sub> e)	Project GHG emissions or actual net GHG removals (t CO <sub>2</sub> e)	Leakage GHG emissions (t CO <sub>2</sub> e)	GHG emission reductions or net anthropogenic GHG removals (t CO <sub>2</sub> e)			
				Before 01/01/2013	From 01/01/2013 until 31/12/2020	From 01/01/2021	Total amount
<b>Total</b>	512,885.697	0	0	0	512,885.697	0	512,885.697

Total emission reduction for the monitoring period after rounding down the above attained value is: 512,885 tCO<sub>2</sub>e.

**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 <sub>2</sub> e)	Amount estimated ex ante for this monitoring period in the PDD (t CO <sub>2</sub> e)
512,885 tCO <sub>2</sub> e	510,050 tCO <sub>2</sub> e

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

&gt;&gt;

Annual estimated GHG emission reductions as per registered PDD - 85,281 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). Total days for this monitoring period are 2183 days. Hence ex-ante emission reduction is 510,050 tCO<sub>2</sub>e.

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

&gt;&gt;

The actual value of emission reduction during the monitoring period is only 0.56% higher than the corresponding estimated values of emission reduction mentioned in the registered PDD which is attributable to higher plant load factor (due to variation in wind speed) during current monitoring period.

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

&gt;&gt;

Not Applicable

## Annexure 1- Operational Data of WTGs (Period 01/12/2013 to 22/11/2019)

(Source: Centralized Monitoring System of O&amp;M Contractor)

Wec No.	Operational Hrs	Non-Operational Hrs	MA %	GA %
TORNTLP-01 (227)	47911:00:00	2147:32:00	97.881	97.494
TORNTLP-02 (228)	48304:00:00	2253:01:00	98.854	97.484
TORNTLP-03 (229)	48494:00:00	2251:24:00	99.289	97.485
TORNTLP-04 (230)	48019:00:00	2262:28:00	98.448	97.460
TORNTLP-05 (231)	48391:00:00	2281:04:00	98.998	97.480
TORNTLP-06 (232)	48540:00:00	2154:57:00	99.117	97.493
TORNTLP-07 (233)	48350:00:00	2347:37:00	99.111	97.482
TORNTLP-08 (234)	48349:00:00	2232:11:00	98.923	97.477
TORNTLP-09 (235)	48440:00:00	2144:13:00	98.884	97.470
TORNTLP-10 (226)	47929:00:00	2150:09:00	98.073	97.489
TORNTLP-19 (225)	48146:00:00	2073:19:00	98.271	97.462
TORNTLP-23 (269)	47542:00:00	2893:42:00	98.438	98.531
TORNTLP-24 (270)	47412:00:00	2695:13:00	97.329	98.538
TORNTLP-50 (396)	48904:00:00	2207:40:00	99.054	98.557
TORNTLP-51 (382)	47961:00:00	2219:08:00	97.785	98.009
TORNTLP-52 (383)	48953:00:00	1912:57:00	99.236	97.985
TORNTLP-53 (393)	48549:00:00	2066:26:00	98.656	98.009
TORNTLP-54 (451)	48926:00:00	1946:18:00	99.053	98.302
TORNTLP-55 (452)	49121:00:00	1944:18:00	99.348	98.316
TORNTLP-56 (455)	48224:00:00	2150:05:00	98.102	98.298
TORNTLP-57 (456)	48660:00:00	1891:56:00	98.333	98.353
TORNTLP-58 (458)	48915:00:00	1930:05:00	98.963	98.299
TORNTLP-59 (459)	48507:00:00	1897:25:00	98.141	98.301
TORNTLP-60 (450)	48181:00:00	1966:03:00	97.475	98.313
TORNTLP-61 (454)	49025:00:00	1924:20:00	99.185	98.294
TORNTLP-11 (279)	48581:00:00	2401:39:00	98.730	98.710
TORNTLP-12 (280)	48114:00:00	2973:24:00	98.911	98.718
TORNTLP-13 (281)	47638:00:00	2786:52:00	97.558	98.720
TORNTLP-14 (285)	48093:00:00	2948:55:00	98.922	98.598
TORNTLP-15 (287)	47311:00:00	2868:05:00	97.594	98.600
TORNTLP-16 (288)	47256:00:00	3143:06:00	97.869	98.582
TORNTLP-30 (278)	48318:00:00	3052:57:00	99.435	98.730
TORNTLP-31 (289)	47714:00:00	3129:30:00	98.447	98.614
TORNTLP-32 (74)	48984:00:00	2021:50:00	98.748	98.567
TORNTLP-33 (375)	48994:00:00	2086:23:00	98.861	98.571
TORNTLP-34 (376)	49122:00:00	2122:08:00	99.119	98.567
TORNTLP-35 (377)	49158:00:00	2093:41:00	99.160	98.568
TORNTLP-17 (290)	47690:00:00	3089:44:00	99.307	98.586
TORNTLP-18 (291)	47301:00:00	3460:25:00	99.236	98.585
TORNTLP-20 (265)	47527:00:00	2881:12:00	97.984	98.530
TORNTLP-21 (266)	47622:00:00	3238:44:00	98.915	98.501
TORNTLP-22 (267)	47532:00:00	2976:06:00	98.242	98.500
TORNTLP-25 (272)	47916:00:00	2927:09:00	98.808	98.521
TORNTLP-26 (274)	47515:00:00	3304:36:00	98.844	98.514
TORNTLP-27 (275)	47786:00:00	3017:01:00	98.763	98.514
TORNTLP-28 (276)	47986:00:00	2944:05:00	98.976	98.513
TORNTLP-29 (277)	47719:00:00	2479:46:00	97.621	98.519
TORNTLP-36 (401)	48991:00:00	2018:37:00	99.124	98.700
TORNTLP-37 (402)	49046:00:00	1779:28:00	98.803	98.701
TORNTLP-38 (403)	47647:00:00	1876:10:00	97.496	98.698
TORNTLP-39 (405)	48608:00:00	2213:59:00	98.833	98.720
TORNTLP-40 (406)	47408:00:00	2483:33:00	98.335	98.687
TORNTLP-41 (407)	48360:00:00	2690:15:00	99.351	98.689

**CDM-MR-FORM**

TORNTLP-42 (408)	47828:00:00	2708:04:00	98.689	98.685
TORNTLP-43 (409)	48022:00:00	2669:23:00	98.624	98.682
TORNTLP-44 (412)	48699:00:00	2157:35:00	98.905	98.663
TORNTLP-45 (416)	48298:00:00	2197:50:00	98.980	98.645
TORNTLP-46 (417)	48682:00:00	2132:06:00	98.803	98.629
TORNTLP-47 (418)	48360:00:00	1963:50:00	98.689	98.627
TORNTLP-48 (419)	48667:00:00	2106:58:00	98.770	98.620
TORNTLP-49 (420)	48263:00:00	2624:09:00	98.978	98.615
TORNTLP-62 (411)	48305:00:00	2227:08:00	99.055	98.676

**Annexure 2 - Details of Meters**

## Meter Details

Line No.	Meter Name	Meter Serial number	Type	Accuracy Class	Calibration Frequency	Date of calibration	Next calibration date	Next calibration date	Next calibration date
Line-1	Main Meter	GJ-0947-A	L&T	0.2s	Once in three years	30.3.11	24.3.14	12.1.17	18.12.20
Line-1	Check Meter	GJU62417	Secure	0.2s	Once in three years	27.6.11	14.6.14	12.1.17	18.12.20
Line-2	Main Meter	GJ-0950-A	L&T	0.2s	Once in three years	30.3.11	26.3.14	12.1.17	18.12.20
Line-2	Check Meter	GJU62418	Secure	0.2s	Once in three years	25.6.11	14.6.14	12.1.17	18.12.20

- - - - -

**Document information**

<i>Version</i>	<i>Date</i>	<i>Description</i>
09.0	8 October 2021	Revision to: <ul style="list-style-type: none"> <li>• Ensure consistency with version 03.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN).</li> </ul>
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.

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.1	2 January 2013	Editorial revision to correct table in section E.5.
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		