



**Verified Carbon
Standard**

MONITORING REPORT FOR

**“44 MW BUNDLED WIND POWER
PROJECT IN MAHARASHTRA MANAGED
BY ENERCON INDIA LIMITED.”**

Document Prepared by:

WIND WORLD (INDIA) POWER DEVELOPMENT PVT. LTD.

Project Title	44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited.
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Project ID	489
Monitoring Period	01-January-2021 to 31-December-2021 (both dates are included)
Prepared By	Wind World (India) Power Development Pvt. Ltd.
Contact	C/o Wind World Tower, A-9, Veera Industrial Estate, Veera Desai Road, Andheri (W), Mumbai – 400053, Maharashtra (India).

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PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The Project activity is located across Satara, Sangli, Nasik, and Ahmednagar District in the state of Maharashtra in India. The WTGs are provided, operated and maintained by Wind World (India) Ltd. It involves the installation of 55 turbines of Wind World make (E-48), each of which has a rated output of 800kW, providing a total capacity of 44 MW. The net electricity supplied by the project activity during the monitoring period is 58486.58 MWh.

The purpose of the project activity is to generate electricity using wind power resources in the region and provide reliable, renewable power to the Maharashtra state electricity grid, which is part of the Indian grid. The total GHG emission reductions for the entire monitoring period (i.e. 01/01/2021 to 31/12/2021) are 57,182 tCO₂e. The first machine under the project activity was commissioned on 7th February 2006 and last machine under the project activity was commissioned on 10th December 2008. The project contributes to sustainability in the region by reducing pollution, creating employment opportunities, improving the livelihoods of the local people. At a larger scale, the project assists Maharashtra and ultimately India in stimulating and accelerating the commercialization of grid-connected renewable energy technologies and markets in India.

1.2 Sectoral Scope and Project Type

Sectoral scope : 1 Energy Industries (renewable -/ non-renewable sources)
 Project Type : I, Renewable energy project.
 Methodology : ACM0002, version 17.
 (Grid-connected electricity generation from renewable sources)

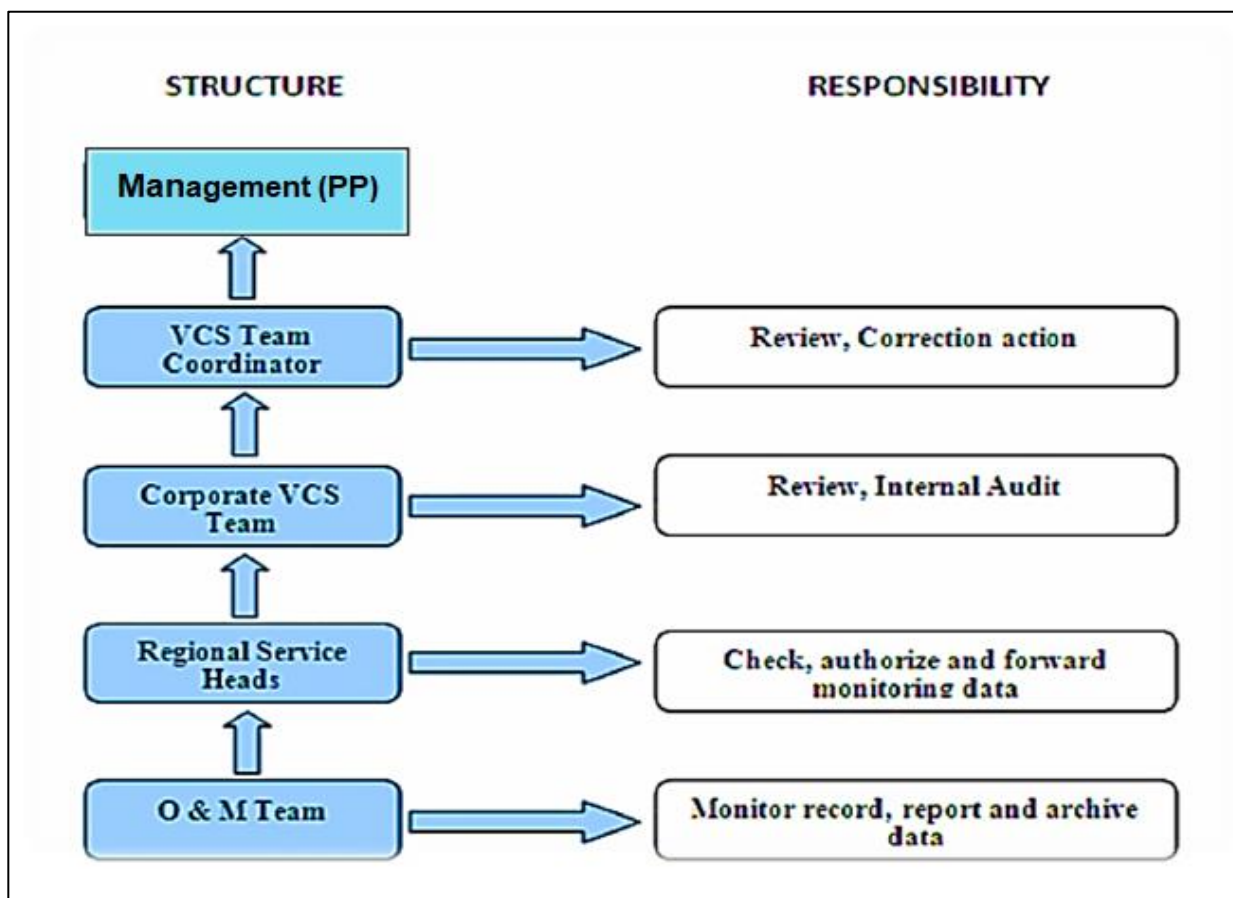
The project activity is not a grouped project.

1.3 Project Proponent

The Project is operated and managed by Wind World (India) Ltd., hereafter will be referred as Wind World (India) Ltd. (or WWIL).

Organization name	Wind World (India) Ltd.
Contact person	Mr. Yogeshh Mehra
Title	Managing Director
Address	A-9, Wind World Tower, Veera Industrial Estate, Veera Desai Road, Andheri (W), Mumbai – 400053
Telephone	+91-22-66924848
Email	yogeshh.mehra@windworldindia.com

Roles & Responsibilities:



1.4 Other Entities Involved in the Project

Organization name	G. B. Rubber Products
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	S-157, M.I.D.C., Bhosari, Pune
Telephone	+91-20-27120323
Email	gbrubber@vsnl.net

Organization name	Atlas Tours & Travels Pvt. Ltd
Role in the Project	Project Investor
Contact person	NA

Title	NA
Address	"Haji Mahal", 53 Mohammed Ali Road, Mumbai
Telephone	+91-22-6141-1000
Email	info@atlastravels.com

Organization name	Shah Lulla Estate Developers
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	Poshish', 1st Floor, Lale Plot, Madhavnagar Road, Sangli
Telephone	+91-233-2377585
Email	poshish@pn3.vsnl.net.in

Organization name	Liberty Oil Mills Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	Amerchand Mansion, 'D' Wind: 16, Madame Cama Road, Colaba, Mumbai
Telephone	+91-22-66381000
Email	admin@libertyoilmills.com

Organization name	Paceman Sales Promotion P. Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	14, Netaji Subhas Road, 4 th Floor, Kolkata
Telephone	+91-33-2231-6142
Email	purti2961@dataone.in

Organization name	Delta Enterprises
Role in the Project	Project Investor
Contact person	NA

Title	NA
Address	Clover Centre, 7 Moledina Road, Pune
Telephone	+91-20-26132000
Email	NA

Organization name	Shreem Capacitors Pvt. Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	P.B. No. 43, Industrial Estate, Plot No. 43/46, Jaisingpur
Telephone	+91-2322-221021
Email	kpr_shreem@sanchamnet.in

Organization name	Kishor Food Products P. Ltd
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	"Matruchhya" Post Box No. 23, Dondaicha
Telephone	+91-20-25630872
Email	NA

Organization name	Mahanagar Developers
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	San Mahu Complex, Bund Garden Road, Pune.
Telephone	+91-20-2612-4265
Email	sales@goelgangadevelopers.com

Organization name	Mr. J. P. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA

Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625
Email	NA

Organization name	Mr. C. P. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625
Email	NA

Organization name	Mr. V.V. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625
Email	NA

Organization name	Mr. J.V. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625
Email	NA

Organization name	Mr. S.V. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625

Email	NA
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Organization name	Mr. V.L. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625
Email	NA

Organization name	Laxmi Narayan Best Chiwda
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20-26454561
Email	NA

Organization name	Om Shanti Wind Farms P. Ltd
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	12-1-58, Gunj Road, Raichur
Telephone	+91-8532-235202
Email	kamal@askgroup.biz

Organization name	New Sahyadri Industries Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	"Swastik House", 39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20-2645-8888
Email	swastikroofing@silworld.in

Organization name	Mr. P. L. Patel
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	39/D, Gultekdi,J.N. Marg, Pune
Telephone	+91-20 2644 4625
Email	NA

Organization name	Elpro International
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	17th Floor, Nirmal, Nariman Point Mumbai
Telephone	+91-22-2202-3075
Email	NA

Organization name	Prachar Energy
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	105,B-Wing, Samkeet Apartments, Sant Janabai Marg, Off. Hanuman Road, Vile Parle (E), Mumbai
Telephone	+91-22-261-08750
Email	deepak@prachar.in

Organization name	D.J. Malpani
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	Plot No. 36, Somwar Peth, Pune.
Telephone	+91-20-2612 5060

Email	NA
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Organization name	International Conveyors Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	10, Middleton Row, Post Box No. 9282, Kolkata
Telephone	+91-33-2229-6033
Email	icltld@vsnl.net

Organization name	Urja Wintech Private Limited
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	AB-501, JP Heights, Byramji Town, Nagpur- 440013
Telephone	+91-982 301 3397
Email	vgvpl@hotmail.com

Organization name	Gargi Construction Co. Pvt. Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	Clover Centre, 7 Moledina Road, Pune
Telephone	+91-20-26132000
Email	NA

Organization name	Mohite & Mohite
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	'Mohite House', 240/B, Gen. Tihorat Marg, Tarabai park, Kolhapur
Telephone	+91-231-2669991
Email	mohicon@sancharnet.in

Organization name	Indiana Engineering Works (Bombay) P. Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	Indiana House, Off. M.V. road, Marol Naka, Andheri (East), Mumbai
Telephone	+91(22)-2850 4743, 2850 5611
Email	NA

Organization name	Welpack Industries Ltd.
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	87, Government Estate, Ganesh Nagar, Nr. Gaurda Petrol Pump, Charkop, Kandivale (W), Mumbai
Telephone	+91-22-2867-8111
Email	info@welpackind.com

Organization name	Sunilkumar Ramanlal Shah
Role in the Project	Project Investor
Contact person	NA
Title	NA
Address	“Jeevan Jyoti”, 151, Bhavani Path, Palace Street, Satara.
Telephone	+91-9823016132
Email	NA

1.5 Project Start Date

07 February 2006

1.6 Project Crediting Period

This is the 2nd crediting period of the project activity.

As per VCS Standard (v3.6, 19 Oct 2016), section 3.8.1 the crediting period (for non-AFOLU projects and ALM projects) has been renewed twice for the duration of ten year each. The first crediting period of the project activity was considered from 1-April-2006 to 31-March-2016. And project WTGs have a standard lifetime of 20 years. Hence, the project has been approved for Renewal Crediting period for a period of 10 years by VCS Registry.

The duration of the 2nd Crediting Period is as follows:

Start date : 1st April 2016
End date : 31st March 2026

1.7 Project Location

The project is spread across villages in Kadvekhurd, Varekarwadi, Bhambarwadi & Panchpatta, Aundhewadiin Satara, Sangli, Nasik & Ahmednagar district in the state of Maharashtra. The location of the units is on the micro siting data to get optimum performance. The latitudinal and longitudinal of individual machines are as given in the following table:

Sr. No.	Customers Name	Capacity (MW)	Site	Taluka	District	Latitude	Longitude
1	G. B. Rubber Products	1.6	Kadvekhurd	Patan	Satara	N 17°33'15" 17°33'56"	E 73°55'28" 73°56'51"
2	Atlas Tours & Travels Pvt. Ltd	0.8	Kadvekhurd	Patan	Satara	N 17°33'15" 17°33'56"	E 73°55'28" 73°56'51"
3	Shah Lulla Estate Developers	0.8	Kadvekhurd	Patan	Satara	N 17°33'15" 17°33'56"	E 73°55'28" 73°56'51"
4	Liberty Oil Mills Ltd.	2.4	Kadvekhurd	Patan	Satara	N 17°33'15" 17°33'56"	E 73°55'28" 73°56'51"
	Liberty Oil Mills Ltd.	1.6	Varekarwadi	Patan	Satara	N 17°11'47.6" 17°11'51.2"	E 73°59'12.7" 73°59'13.5"
5	Paceman Sales Promotion P. Ltd.	0.8	Bhambarwadi	Shirla	Sangli	N 17°8'36.5"	E 73°55'14.3"
6	Delta Enterprises	2.4	Bhambarwadi	Shirla	Sangli	N 17°7'11.3" 17°8'35.6" 17°8'28.5"	E 73°56'5.7" 73°55'2.8" 73°55'21.7"
7	Shreem Capacitors Pvt. Ltd.	3.2	Bhambarwadi	Shirla	Sangli	N 17°8'52.1" 17°8'58.2", 17°9'2.8" 17°9'34.8"	E 73°55'10.1" 73°55'6", 73°55'5.4" 73°55'6.1"

8	Kishor Food Products P. Ltd	0.8	Bhambarwadi	Shirla	Sangli	N 17°8'53.2"	E 73°54'57.7"
9	Mahanagar Developers	7.2	Bhambarwadi	Shirla	Sangli	N 17°9'7.6" 17°9'14.7" 17°9'19.1" 17°9'24.6" 17°9'28.2" 17°9'14.5" 17°9'10.8" 17°9'10.9" 17°8'10.9"	E 73°55'5.8" 73°55'2.5" 73°55'3.6" 73°55'6" 73°55'6.7" 73°55'18.1" 73°55'36.6" 73°55'3.5" 73°56'0.5"
	Mahanagar Developers	0.8	Panchpatta	Sinnar	Nasik	N 19°39'12.8"	E 73°48'41.4"
10	Mr. J. P. Patel	0.8	Panchpatta	Sinnar	Nasik	N 19°45'53.4"	E 73°50'32.8"
11	Mr. C. P. Patel	0.8	Panchpatta	Sinnar	Nasik	N 19°45'17.1"	E 73°50'31.4"
12	Mr. V. V. Patel	0.8	Panchpatta	Sinnar	Nasik	N 19°44'58"	E 73°50'13.1"
13	Mr. J. V. Patel	0.8	Panchpatta	Sinnar	Nasik	N 19°45'12.7"	E 73°50'29.2"
14	Mr. S. V. Patel	0.8	Panchpatta	Sinnar	Nasik	N 19°45'46.9"	E 73°50'34.1"
15	Mr. V. L. Patel	0.8	Panchpatta	Sinnar	Nasik	N 19°44'33.5"	E 73°50'29.2"
16	Laxmi Narayan Best Chiwda	0.8	Panchpatta	Sinnar	Nasik	N 19°45'2.9"	E 73°50'12.6"
17	Om Shanti Wind Farms P. Ltd	0.8	Aundhewadi	Sinnar	Nasik	N 19°45'7.7"	E 73°50'12.8"
18	New Sahyadri Industries Ltd.	1.6	Panchpatta	Akole	Ahmednagar	N 19°44'24.3" 19°44'28.2"	E 73°50'40.8" 73°50'35.7"
19	Mr. P. L. Patel	0.8	Panchpatta	Akole	Ahmednagar	N 19°41'7.2"	E 73°48'48.2"
20	Elpro International	0.8	Panchpatta	Akole	Ahmednagar	N 19°41'41.8"	E 73°48'53.3"
21	Prachar Energy	1.6	Panchpatta	Akole	Ahmednagar	N 19°39'17.8" 19°39'22.7"	E 73°48'42.7" 73°48'47.5"
22	D.J. Malpani ¹	1.6	Panchpatta	Akole	Ahmednagar	N 19°41'16.6" 19°41'20.6"	E 73°48'53" 73°48'55.6"

¹ The Panama Wind Energy transferred WTGs to D.J. Malpani on April 2011.

23	International Conveyors Ltd.	0.8	Panchpatta	Akole	Ahmednagar	N 19°41'37"	E 73°48'54.3"
24	Urja Wintech Private Limited ²	0.8	Panchpatta	Akole	Ahmednagar	N 19°41'11.9"	E 73°48'51.6"
25	Gargi Construction Co. Pvt. Ltd.	1.6	Panchpatta	Akole	Ahmednagar	N 19°41'26.1" 19°41'31.1"	E 73°48'55.1" 73°48'54.5"
26	Mohite & Mohite	2.4	Panchpatta	Akole	Ahmednagar	N 19°42'15.6" 19°42'20.5" 19°42'25.6"	E 73°49'6.4" 73°49'15.9" 73°49'15.3"
27	Indiana Engineering Works (Bombay) P. Ltd.	1.6	Panchpatta	Akole	Ahmednagar	N 19°39'27.5" 19°39'32.4"	E 73°48'49" 73°48'49.8"
28	Welpack Industries Ltd.	0.8	Panchpatta	Akole	Ahmednagar	N 19°39'7.9"	E 73°48'37"
29	Sunilkumar Ramanlal Shah	0.8	Panchpatta	Akole	Ahmednagar	N 19°44'38.6"	E 73°50'22.5"

1.8 Title and Reference of Methodology

Applied version of the methodology, i.e. **ACM0002, version 17.**

The title of this baseline and monitoring methodology:

“Grid-connected electricity generation from renewable sources.”

The tools referenced in this methodology are:

- Tool to calculate the emission factor for an electricity system, version 05.0
(<http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v5.0.pdf>)
- Tool for the demonstrations and assessment of additionality, version 05.2
(<http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v5.2.pdf>).

1.9 Participation under other GHG Programs

Not Applicable

1.10 Other Forms of Credit

Not Applicable

² The MetafabHitech Private Limited sold WTGs to UrjaWintech Pvt. Ltd. in May 2016

1.11 Sustainable Development Contributions

The National CDM Authority (NCDMA), the Designated National Authority (DNA) for Government of India (GoI), has stipulated four indicators of sustainable development in pursuant to their approval guidelines for Clean Development Mechanism (CDM) projects from India. This project activity under VCS also contributes towards these sustainable development indicators, as follows:

Social well-being:

- ✓ The project activity has been contributing to socio-economic development in the region through improving the infrastructure for road network and other mode of communications in the remote part of the state during both the construction and operational phases.
- ✓ The project activity has been supporting to alleviate poverty by means of direct and indirect benefits through employment generation and improved economic activities by strengthening of local grid of the state electricity utility. Thus, contributes to the livelihood of the society.

Environmental well-being:

- ✓ The project activity utilizes renewable energy source for electricity generation instead of fossil fuel-based electricity generation which would have emitted gaseous, liquid and/or solid effluents/wastes. Thus, the project causes no negative impact on the surrounding environment and contributes to environmental well-being.
- ✓ The project activity contributes towards reduction of the GHG emissions as well as emission of pollutants like SO_x, Suspended Particulate Matters (SPMs) etc. as in absence of the project an equivalent amount of power would have been generated at Grid from grid connected power plants which are pre-dominantly run by fossil fuels, associated with high level of SO_x, NO_x, SPMs etc.

Economic well-being:

- ✓ The project generates electricity utilizing renewable source, i.e. wind. Thus, it will increase the contribution of renewable based power generation in the region and will also help in reducing the demand - supply gap of the respective grid.
- ✓ The project activity involves substantial amount of investment, manpower, operational amenities etc. Thus, it contributes towards generation of direct and indirect employment opportunities as per the requirement of the skilled and semi-skilled manpower, both during construction and operational phase.
- ✓ Use of a renewable source of energy reduces the dependence on imported fossil fuels and associated price variation, which leads to economic stability of the nation. Also, it leads to increased energy security.

Technological well-being:

- ✓ Increased interest in wind energy projects will further push R&D efforts by technology providers to develop more efficient and better machinery in future.

Clean energy development is a national need. The project activity promoting a clean energy technology which encourages govt. to adopt more and more technically advance practices and thus lead to an overall technological wellbeing.

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
1	13.0	Tonnes of greenhouse gas emissions avoided or removed	Implemented project to prevent the release of pollutants like CO ₂ , SO _x , Suspended Particulate Matters (SPMs) etc.	Project has prevented the release of 57,182 tonnes of carbon into the atmosphere during the monitoring period	Prevented the release of approximately 960,000 tonnes of carbon into the atmosphere for approximately 16 years

2 SAFEGUARDS

2.1 No Net Harm

Not applicable for the project activity.

2.2 Local Stakeholder Consultation

The comments from local stakeholders were invited through four local stakeholder meetings conducted on 13- November-2006 at Satara District, 14- November-2006 at Sangli District, 15- November-2006 at Ahmednagar District and 16- November-2006 at Nashik District. The four advertisements regarding the Public Stakeholder Meetings were Placed in a local newspaper were placed in 'Sarvmat' on 29th-October- 2006 inviting the local stakeholders for the meetings.

The meeting was attended by local villagers, panchayat members, shopkeepers, suppliers, vendors and representative of PPS. The stakeholders were explained about the project activity and the various benefits arising out of the project activity. A discussion was held in which the views of the local stakeholders were addressed. No negative comments received.

Nevertheless, PP is open for the continuous stakeholder interaction and formed a grievance register at the project site for the comments at any point of time during the project crediting period. PP has explained this mechanism for on-going communication to the local stakeholders and transparently kept the notice mentioning the grievance register at the project site. The accounting of all and any input received during ongoing communication should be taken in consideration to take the appropriate measure to resolve the grievance.

However, the project activity is a wind power generation project and operates without any emission to air, water and soil even there is no noise pollution is associated with the project. No issues and grievance for the project activity has been identified during the current monitoring period. There are no comments received during the current monitoring period from the stakeholders.

2.3 AFOLU-Specific Safeguards

Not applicable

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The first WTG under the project activity was commissioned on 7th February 2006 and last WTG under the project activity was commissioned on 10th December 2008. The project activity consists of 55 WTGs (800 kWh) of Wind World make E-48.

The commissioning date for all the machines included in the project activity is given in the table below:

Serial No	Customer Name	Individual Capacity	Loc No.	Capacity	Date of Commissioning
1	G. B. Rubber Products	0.8	1	1.6	14-Feb-06
2	G. B. Rubber Products	0.8	2		14-Feb-06
3	Shah Lulla Estate Developers	0.8	4	0.8	14-Feb-06
4	Liberty Oil Mills Ltd.	0.8	6	2.4	7-Feb-06
5	Liberty Oil Mills Ltd.	0.8	7		7-Feb-06
6	Liberty Oil Mills Ltd.	0.8	8		7-Feb-06
7	Liberty Oil Mills Ltd.	0.8	1	1.6	8-Feb-06
8	Liberty Oil Mills Ltd.	0.8	2		8-Feb-06
9	Paceman Sales Promotion P. Ltd.	0.8	36	0.8	22-Mar-06
10	Delta Enterprises	0.8	37	1.6	22-Mar-06
11	Delta Enterprises	0.8	38		15-Jun-06
12	Delta Enterprises	0.8	19	0.8	15-Jun-06
13	Mahanagar Developers	0.8	53	4.8	5-Jan-07
14	Mahanagar Developers	0.8	54		6-Mar-07
15	Mahanagar Developers	0.8	55		5-Jan-07
16	Mahanagar Developers	0.8	56		5-Jan-07
17	Mahanagar Developers	0.8	57		5-Jan-07
18	Mahanagar Developers	0.8	61		5-Jan-07
19	Mahanagar Developers	0.8	62	2.4	6-Mar-07
20	Mahanagar Developers	0.8	63		5-Jan-07
21	Mahanagar Developers	0.8	60		6-Mar-07
22	Mahanagar Developers	0.8	30	0.8	28-Feb-07
23	Kishor Food Products P. Ltd.	0.8	47	0.8	10-Dec-08
24	Mr. J. P. Patel	0.8	95	0.8	29-Mar-07
25	Mr. C. P. Patel	0.8	84	0.8	31-Mar-07
26	Mr. V. V. Patel	0.8	80	0.8	31-Mar-07
27	Mr. J. V. Patel	0.8	83	0.8	29-Mar-07
28	Mr. S. V. Patel	0.8	94	0.8	29-Mar-07
29	Mr. V. L. Patel	0.8	76	0.8	29-Mar-07
30	Laxmi Narayan Best Chiwda	0.8	81	0.8	29-Mar-07
31	New Sahyadri Industries Ltd.	0.8	74	1.6	27-Jan-07
32	New Sahyadri Industries Ltd.	0.8	75		27-Jan-07

33	Mr. P. L. Patel	0.8	45	0.8	6-Feb-07
34	Elpro International	0.8	52	0.8	30-Dec-06
35	Prachar Energy	0.8	31	1.6	3-Mar-07
36	Prachar Energy	0.8	32		3-Mar-07
37	D. J. Malpani	0.8	47	1.6	30-Dec-06
38	D.J. Malpani	0.8	48		30-Dec-06
39	International Conveyors Ltd.	0.8	51	0.8	30-Dec-06
40	Shreem Capacitors Pvt. Ltd.	0.8	50	3.2	10-Dec-08
41	Shreem Capacitors Pvt. Ltd.	0.8	51		10-Dec-08
42	Shreem Capacitors Pvt. Ltd.	0.8	52		10-Dec-08
43	Shreem Capacitors Pvt. Ltd.	0.8	58		10-Dec-08
44	Urja Wintech Private Limited	0.8	46	0.8	6-Feb-07
45	Atlas Tours & Travels Pvt. Ltd.	0.8	5	0.8	7-Feb-06
46	Om Shanti Wind Farms P. Ltd.	0.8	82	0.8	31-Mar-07
47	Gargi Construction Co. Pvt. Ltd.	0.8	49	1.6	30-Dec-06
48	Gargi Construction Co. Pvt. Ltd.	0.8	50		30-Dec-06
49	Mohite & Mohite	0.8	59	2.4	30-Dec-06
50	Mohite & Mohite	0.8	60		30-Dec-06
51	Mohite & Mohite	0.8	61		30-Dec-06
52	Indiana Engineering Works	0.8	33	1.6	3-Mar-07
53	Indiana Engineering Works	0.8	34		3-Mar-07
54	Welpack Industries Ltd.	0.8	29	0.8	28-Feb-07
55	Sunilkumar Ramanlal Shah	0.8	77	0.8	30-Mar-08

There have not been any special events comprising of major overhauls and downtime of project activity during the said monitoring period, thus there has not been any change in the operation of the project activity during the monitoring period. Also, there have not been any events that may impact the GHG emission reductions and monitoring in current monitoring period.

3.2 Deviations

2.1.1 Methodology Deviations

No deviation in the methodology occurred in the current monitoring period.

2.1.2 Project Description Deviations

Deviation during last monitoring period:

Due to prevailing pandemic (during the year 2020), the authority who conducts energy meter calibration could not physically conduct the meter testing/calibration in the year 2020. Hence the calibration details for the current monitoring period (i.e. year 2020) are not available.

Therefore, during last monitoring period, a permanent deviation has been taken consider the delay in meter calibration. The calibration is not under the purview of the Project Participant (PP) and is performed by the MSEDCL Testing Division; which is the authorized body for meter testing. The meters are tested, sealed and maintained by MSEDCL only in the presence of authorized representative of the PP who also signs the results. However, due to ongoing pandemic situation and intermittent lockdown in the state, this regular procedure for meter testing could not be performed.

Also, from the past trend of meter testing (as shown under the previous deviations) it has been realized that authority MSEDCL does not conduct the meter testing as per prescribed frequency of the VCS-PD; whereas calibration is under the direct purview and control of MSEDCL. Therefore, PP has realized that a reasonable frequency of meter testing/calibration should be in line with the Central Electricity Authority (CEA) guideline for meter testing. Therefore, PP has referred to the CEA notification dated 17 March 2006³ which confirms that energy meters test/calibration can be performed once in five years. Thus, PP has revised the calibration frequency of the meters as once in five years as per the CEA Notification, which is a permanent change/deviation for the project activity. Now with the deviation the next due calibration for energy meters will be in the year 2023 and 2024, respectively. Meter details are included under the Appendix 1.

This deviation is considered in line with the VCS Standard 3.19.2, para (2). Since the change in meter calibration frequency does not have any impact on applicability of the methodology, additionality and/or applicability of the baseline, hence deviation is applied as per provision of para 3.19.2 (2) of the VCS standard v4.2. Also, the deviation shall be reported in subsequent monitoring periods as prescribed under the referred para of the VCS Standard.

Deviation during previous monitoring periods:

Deviation 1:

There is no permanent project description deviation taken for the project for previous monitoring period “01 Feb 2017 to 31 March 2018 (i.e. during the 1st monitoring period of the current crediting period (i.e. 2nd CP)). However, during that particular monitoring period there was delay in meter calibration for three sites, the delay in meter calibration were identified and reported under the Appendix to previous monitoring report. Hence, these delays have been considered under temporary project description deviation for the project. However, the delays have been addressed by applying required error factors (i.e. for both export and import values) for the entire months of concerned delay conservatively.

Deviation 2:

During the previous monitoring period “01 Apr 2018 to 31 Oct 2018”, there was delay in energy meter calibration identified for few machines as mentioned in appendix of the approved MR; therefore, PP has followed the conservative approach and applied the maximum permissible error of the energy meter over the export & import values for conservative estimation of energy generation for the entire months falls in delay period.

The project deviations as mentioned above do not impact the existing applicability conditions of the methodology, additionally or the appropriateness of the baseline scenario.

Deviation 3:

During the last monitoring period “01 Nov 2018 to 31 Dec 2019”, there have been delays in energy meter calibration identified for few machines as mentioned in the appendix of this MR; therefore, PP

³ https://cea.nic.in/wp-content/uploads/2020/02/meter_reg.pdf

has followed the conservative approach and applied the maximum permissible error of the energy meters over the export & import values for conservative estimation of energy generation for the entire months falls in delay period for the respective machines.

Thus, it can be confirmed from the above explanation that the deviations taken during the previous monitoring periods do not have an impact on the applicability of the methodology, additionally or the appropriateness of the baseline scenario. Hence, there is no impact on the applicability of the current version of the Methodology also.

3.3 Grouped Projects

Not applicable

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	$EF_{grid,y}$
Data unit	tCO ₂ / MWh
Description	Combined margin emission factor of Indian grid
Source of data	Calculated from operating and built margin, using 75%-25% weights used (Source: CEA database, Version 11, April 2011 http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf)
Value applied	0.9777
Justification of choice of data or description of measurement methods and procedures applied	CEA has estimated the simple operating margin and build margin emission factors for the Indian grid. For calculating the CO ₂ emission factor as per combined margin method for the second crediting period, the weights of 0.75 for operating margin and 0.25 for build margin are considered as per 'Tool to calculate the emission factor for an electricity system (Version 05.0)
Purpose of Data	Calculation of baseline emissions
Comments	This value is calculated on ex-ante basis and will remain fixed for the entire crediting period.

Data / Parameter	$EF_{OM,y}$
Data unit	tCO ₂ / MWh
Description	Simple Operating margin emission factor of Indian Grid

Source of data	Calculated from CEA database, Version 11, April 2016 (http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf)
Value applied	0.9941
Justification of choice of data or description of measurement methods and procedures applied	CEA has estimated the simple operating margin and build margin emission factors for the Indian grid. For calculating the CO ₂ emission factor as per combined margin method for the second crediting period, the weighted average value of simple operating margin has been considered, as per 'Tool to calculate the emission factor for an electricity system (Version 05.0)
Purpose of Data	Calculation of baseline emissions
Comments	This value is calculated on ex-ante basis and will remain fixed for the entire crediting period.

Data / Parameter	$EF_{BM,y}$
Data unit	tCO ₂ / MWh
Description	Build margin emission factor of Indian grid
Source of data	Calculated from CEA database, Version 11, April 2016 (http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf)
Value applied	0.9285
Justification of choice of data or description of measurement methods and procedures applied	CEA has estimated the build margin emission factors for the Indian grid. For calculating the CO ₂ emission factor as per combined margin method for the second crediting period, the build margin value for the most recent year (i.e. 2014-15) has been considered, as per "Tool to calculate the emission factor for an electricity system (Version 05.0)
Purpose of Data	Calculation of baseline emissions
Comments	This value is calculated on ex-ante basis and will remain fixed for the entire crediting period.

4.2 Data and Parameters Monitored

Data / Parameter	$EG_{y, net}$
Data unit	MWh
Description	Net electricity supplied to the grid by the Project.
Source of data	Calculated from EG_{export} and EG_{import} as $(EG_{export} - EG_{import})$
Description of measurement methods	Net electricity supplied to the grid will be calculated by the values of Electricity import and Electricity export. The Net electricity is recorded as following:

and procedures to be applied	(Net Electricity = Net Export – Net Import) The procedures for metering and meter reading will be as per the provisions of the PPA.
Frequency of monitoring/recording	Monthly
Value monitored	58486.58
Monitoring equipment	The Energy Meters of accuracy class 0.2s has been used to measure the electricity exported & imported to grid. Details of energy meters are included under the monitoring plan, under section 4.3 & Appendix 1
QA/QC procedures to be applied	The Energy Meters of accuracy class 0.2s has been used to measure the electricity exported & imported to grid. The frequency of meter testing/calibrations has been prescribed as once in five years which is under the direct purview and control of MSEDCL. Details of energy meters are included under the monitoring plan, under section 4.3 & Appendix 1
Purpose of the data	Calculation of baseline emissions
Calculation method	Described in Section 4.3
Comments	Not Applicable.

Data / Parameter	EGExport,
Data unit	MWh
Description	Electricity exported to the grid by the project activity in year y
Source of data	Monthly certificates issued by MSEDCL (Credit Note)
Description of measurement methods and procedures to be applied	The Energy generated at the wind farm will be metered and measured by MSEDCL on monthly basis at the sending end substation of the Wind Farm. The monitoring of 'electricity exported to the grid' would be as per the details provided in PPA.
Frequency of monitoring/recording	Continuous monitoring and Monthly recording.
Value monitored	58557.64
Monitoring equipment	The Energy Meters of accuracy class 0.2s has been used to measure the electricity exported (at substation) and same is being apportioned by MSEDCL to calculate electricity exported by the project activity. Details of energy meters are included under the monitoring plan, under the section 4.3 & Appendix 1
QA/QC procedures to be applied	The frequency in meter testing/calibrations has been prescribed as once in five years, which is under the direct purview and control of MSEDCL.

	Details of energy meters are included under the monitoring plan under the section 4.3 & Appendix 1 Every month these meter readings are jointly recorded by MSEDCL representative and plant personnel. The meters at the substation are the two-way meters and are in the custody of MSEDCL. All the meters are calibrated once in five years by state utility and as per the requirement stipulated by SEB. Since the readings are taken at the point of supply of power to the grid, the transmission and distribution losses and the minimum reactive power consumption has already been taken into account.
Purpose of the data	Calculation of baseline emissions
Calculation method	Described in Section 4.3
Comments	Not Applicable

Data / Parameter	EG_{Import}
Data unit	MWh
Description	Electricity imported from the grid by the project activity in year y.
Source of data	Monthly certificates issued by MSEDCL (Credit Note)
Description of measurement methods and procedures to be applied	The Energy received at the wind farm will be metered and measured by MSEDCL on monthly basis at the sending end sub-station of the Wind Farm.
Frequency of monitoring/recording	Continuous monitoring and Monthly recording.
Value monitored	71.06
Monitoring equipment	The Energy Meters of accuracy class 0.2s has been used to measure the electricity imported (at substation) and same is being apportioned by MSEDCL to calculate electricity imported by the project activity. Details of energy meters are included under the monitoring plan , under the section 4.3 & Appendix 1
QA/QC procedures to be applied	Every month these meter readings are jointly recorded by MSEDCL representative and plant personnel. The meters at the substation are the two-way meters and are in the custody of MSEDCL. All the meters are calibrated once in 5 years by state utility and as per the requirement stipulated by SEB. The frequency in meter testing/calibrations has been prescribed as once in five years, which is under the direct purview and control of MSEDCL.

	Since the readings are taken at the point of supply of power to the grid, the transmission and distribution losses and the minimum reactive power consumption has already been taken into account.
Purpose of the data	Calculation of baseline emissions
Calculation method	Described in Section 4.3
Comments	Not Applicable

4.3 Monitoring Plan

Monitoring Plan has been proposed as prescribed under the registered PD (with the consideration of deviations as described under the section 2.4 above). Also, as the renewal crediting period applies the latest version of the Methodology (i.e. ACM0002 version 17), hence monitoring of emission reductions are also comply with the requirements of the methodology.

The monitoring includes collection, monitoring, recording, reporting and archiving of data. The applied methodology requires monitoring of net electricity supplied to the grid. The values of grid emission factors are fixed ex-ante and remain same throughout the crediting period.

a) Purpose of monitoring: The main purpose of the monitoring is to check the electricity exported to the Indian grid from the project under consideration.

b) Types of data and information to be reported, including units of measurement EG_y (Net electricity supplied to the grid by the Project)

c) Origin of the data: Electricity supplied by the project activity to the grid as per energy generation certificates given by Maharashtra State Electricity Distribution Co. Ltd (MSEDCL)

d) Monitoring, modelling, measurement or calculation approaches:

➤ Measurement or Calculation Approaches:

- As per registered VCS PD, the generated electricity is measured through a two-steps procedure wherein the first metering is carried out at the controller of the machine with on-board meter. The monitoring of all these wind turbines is done from a common monitoring station as a part of central monitoring system. The system consists of a state- of- the- art controlling and monitoring and well trained staff personnel of O&M contractor, Wind World India Limited, are always present on site to monitor various parameters of power generation and deal with any problems related to generation, transmission or maintenance. $EG_{gross, y}$ is the electricity generated from an individual wind turbine measured through its panel meter.

The summation of total Electricity exported and imported from wind turbine of the project proponent from individual meters (panel meter) in MWh is presented as:

$$\sum EG_{gross\ export, y} \text{ and } EG_{gross\ import, y}$$

And the summation of total Electricity exported and imported (panel data) from the other wind turbines attached to the common MSEDCL meter at the sub-station in MWh is presented as:

$\sum EG_{\text{total import}}$ and $EG_{\text{total export}}$

A ratio based on these two sets of measured values would be used for apportioning the net electricity supplied to the Indian grid by the project activity. The second metering is carried out at grid interconnection point (substation) wherein the Joint Meter Reading (JMR) is carried out on last day of every month in presence of the representatives of the project proponent & the state electricity utility (MSEDCL). This JMR is used for calculation of the amount of electricity supplied to the grid against which the utility makes the payment to the project proponent. The JMR gives both the “export” ($EG_{\text{JMR, export}}$) and “import” ($EG_{\text{JMR, import}}$) of the electricity to/ from the Indian grid. There is a single meter which gives both the export and import values, this metered reading would give value net of line losses and auxiliary consumption. Further, as there is a common MSEDCL joint meter for multiple project proponents, the joint meter reading (JMR) is taken every month by MSEDCL personnel reflects the cumulative monthly generation for all wind turbines connected to this MSEDCL meter. The apportioning of electricity generated from the various wind turbines is done by WWIL, based on the power generation from the individual wind turbines connected to this MSEDCL meter. O&M personnel from WWIL prepare a monthly report on generation and consumption. This report contains details of power exported/imported to/from the grid by each of the wind turbines connected. This apportioned value is then used by the project proponent to raise invoice from MSEDCL.

Deviation inclusion:

In the last monitoring period verification of the first crediting period, the parameter EG_{Gross} has not been considered similar to the previous verifications⁴, because now the credit breakup is used as source for taking the values of EG_{export} & EG_{import} , the credit breakup is issued on monthly basis & is authorized by MSEDCL.

There is no requirement of apportioning of EG_{export} & EG_{import} to be done by PP, as it is done by MSEDCL & a credit breakup is issued.

EG_{export} the electricity exported to the grid by the project activity was previously calculated as follows:

$$EG_{\text{export}} = EG_{\text{JMR, export}} \times \frac{\sum^n EG_{\text{gross export, y}}}{(\sum^n EG_{\text{gross export, y}} + \sum^n EG_{\text{total export, y}})}$$

EG_{import} the electricity drawn from the grid by the project activity is calculated as follows:

$$EG_{\text{import}} = EG_{\text{JMR, import}} \times \frac{\sum^n EG_{\text{gross import, y}}}{(\sum^n EG_{\text{gross import, y}} + \sum^n EG_{\text{total import, y}})}$$

⁴ A deviation was sought and had been approved. Please refer to third verification report of project (for the period from 01/10/2010 to 30/11/2011) activity at following weblink:
<https://vcsprojectdatabase2.apx.com/myModule/Interactive.asp?Tab=Projects&a=2&i=489&lat=17.554167&lon=73.924444&bp=1>)

From third monitoring period (i.e. from 01/10/2010 to 30/11/2011) of the first crediting Period, the deviation has been taken as the values of EG_{export} & EG_{import} are available in the Credit Breakup given by MSEDCL, so from the breakup sheet the values will be sourced & the net electricity supplied to grid will be calculated as the difference between Electricity Exported & Electricity Imported.

EG_y , the net electricity supplied to the grid by the project activity, is calculated as follows:

$$EG_y = EG_{\text{export}} - EG_{\text{import}}$$

The meters located at the grid sub-station are sealed, maintained and calibrated by the state electricity utility. The meters are tested and maintained as per the Metering Code for Maharashtra. Additionally, each wind turbine is equipped with an integrated electronic meter. The electricity generated is recorded 24 hours.

Net electricity supplied to the grid will be measured by the two-way tri-vector meter.

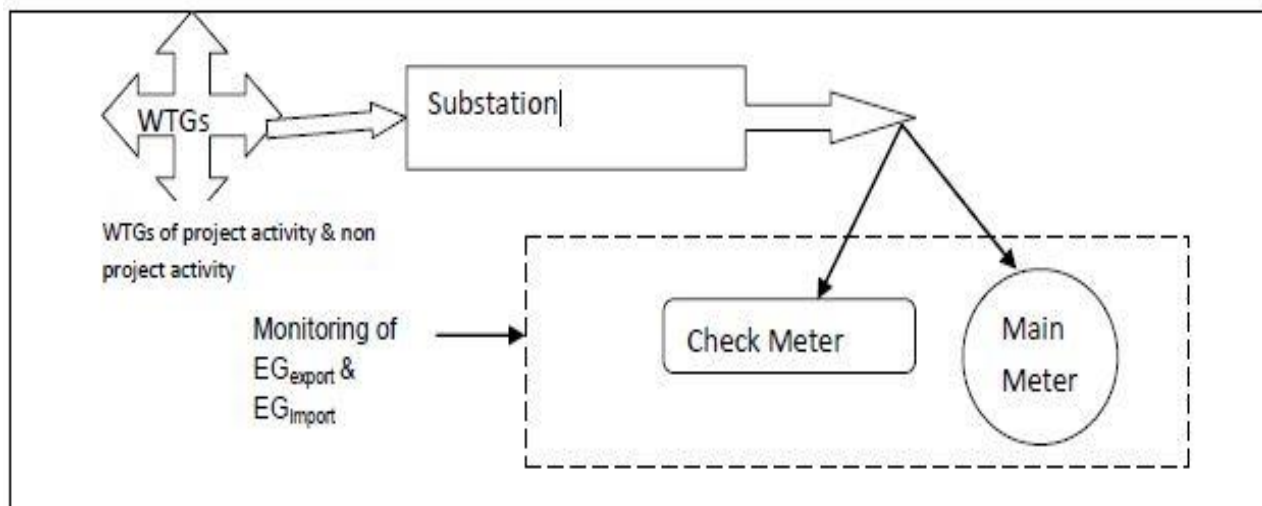
The Net electricity is recorded as following:

$$(\text{Net Electricity} = \text{Total Export} - \text{Total Import})$$

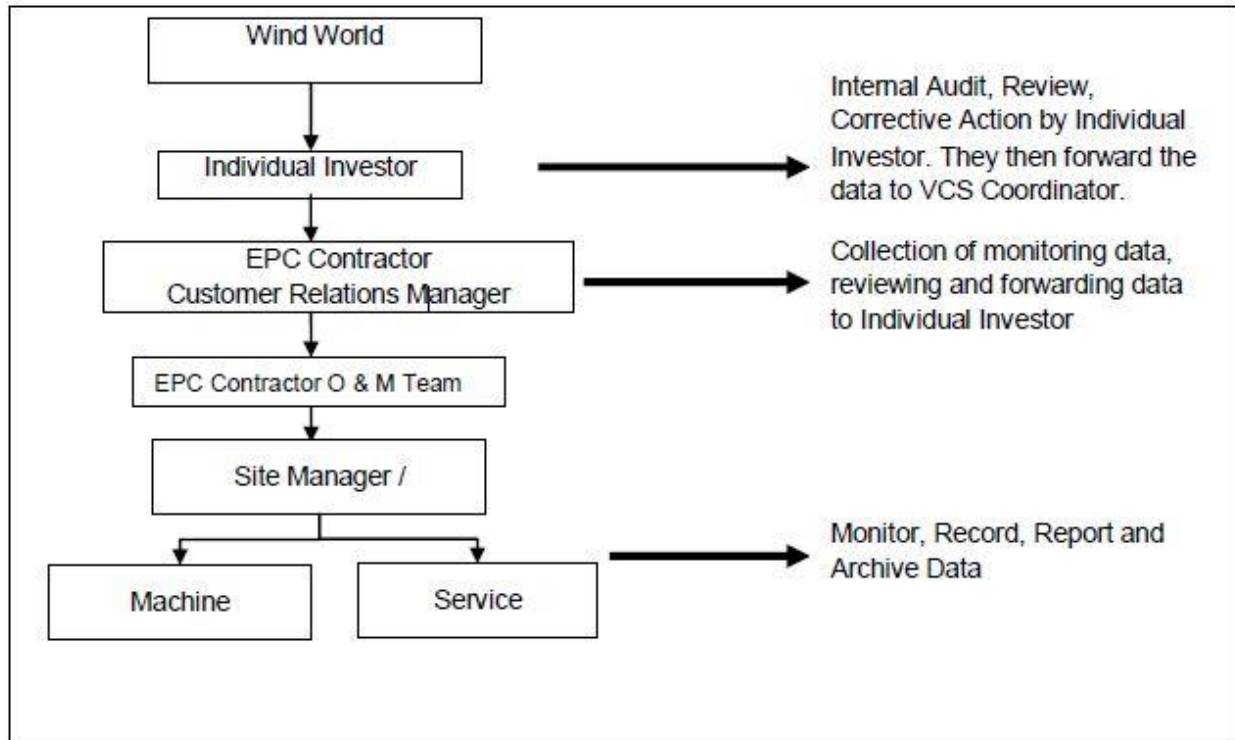
The procedures for metering and meter reading will be as per the provisions of the power purchase agreement signed between PPs and MSEDCL.

e) Monitoring times and periods, considering the needs of intended users: The Net electricity supplied to the grid is recorded monthly by taking a Joint Meter Reading (JMR) in the presence of officials from off-taking Utility (MSEDCL) and Wind World as O&M contractor, on behalf of project sponsor. The Joint meter reading contains the value of energy imported and exported and the net export to the grid during the recording period. This Joint meter reading is certified by the Executive engineer of utility and by Wind World Officials.

f) Monitoring roles and responsibilities: The sole parameter for monitoring is the electricity supplied to the grid. The Project is operated and managed by Wind World (India) Ltd. The GHG collection diagram is as follows:



The operational and management structure implemented by Wind World is as follows:



Wind World India limited follows an ISO 9001:2008 certified Quality Management system. Wind World India limited 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. Adhering to the calibration and testing procedure as described in Power Purchase Agreement ensures the accuracy of monitoring parameter. The project adheres to all the mandatory regulatory and statutory requirements at the state as well as national level.

g) Managing Data Quality:

Data management is as per the ISO certification standards.

- ✓ The data collection is ongoing process. The Net electricity supplied to the grid is recorded monthly by taking a Joint Meter Reading (JMR) in the presence of officials from MSEDCL and Wind World as O&M contractor, on behalf of project sponsor. This Joint meter reading is certified by the Executive engineer of utility and by Wind World Officials.
- ✓ Two-way meter will be calibrated once in five years as per the Guidelines stipulated by Central Electricity Authority (CEA, Notification dated 17 March 2006). The meter testing/calibration is under the direct purview of MSEDCL. However, the Project Head would be responsible for collecting the certificates of calibration of the meters. Regular calibration of meters ensures the accuracy of amount of electricity supplied to the grid.
- ✓ SCADA system connected to individual WTGs ensures continuous online monitoring of all WTGs.

- ✓ The net electricity supplied by individual customer's WTGs as mentioned in Credit Breakup given by MSEDCL can be cross-checked with invoices raised by customers to the MSEDCL.

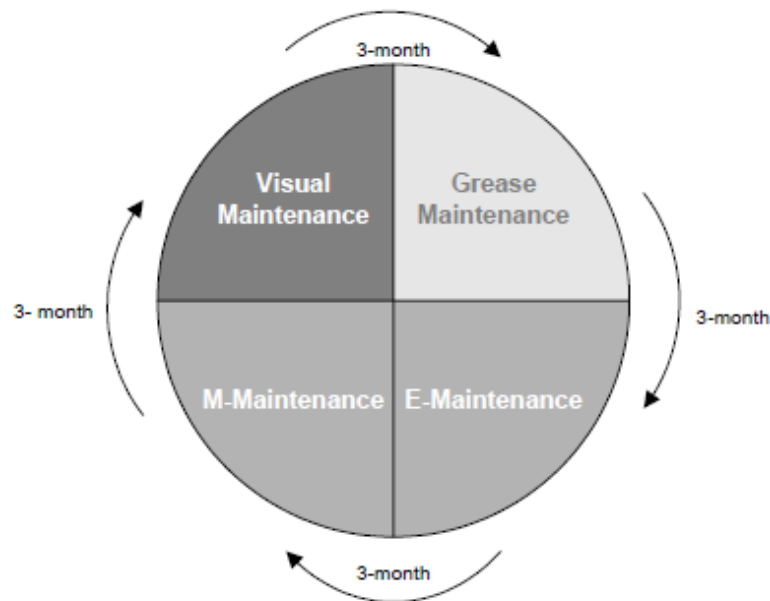
h) Annual maintenance and major breakdown detail:-

Description of maintenance intervals:

On project site there is a schedule for annual maintenance for the entire machine. There are four types of maintenance and machine has to stop for defined time period for maintenance as follows:

1. Visual maintenance : average 3 to 4 hr stop of WTG
2. Grease maintenance : average 3 to 4 hr stop of WTG
3. Electrical maintenance: average 16 to 20 hr stop of WTG
4. Mechanical maintenance: average 16 to 20 hr stop of WTG

Cycle for annual maintenance is according to following picture:



Annual Maintenance cycle

Maintenance comprises not only activities to determine and assess a wind turbine's actual state but also, those to keep the system's nominal state. Repair work necessary to reconstruct the nominal state are not, however, part of these maintenance instructions.

The details of the calibration are mentioned in the Appendix.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The baseline emissions (BE_y in tCO_2) are the product of the baseline emissions factor (EF_y in tCO_2/MWh) and the net electricity supplied by the project activity to the grid (EG_y in MWh)

$$BE_y = E_{GBL,y} * E_{FCO2,grid,y}$$

Where,

BE_y - Baseline Emissions in year y ($t CO_2$)

$E_{GBL,y}$ - Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

$E_{FCO2,grid,y}$ - CO_2 emission factor of the grid in year y ($t CO_2/MWh$)

$$\begin{aligned} \text{Thus, } BE_y &= 58486.58 * 0.9777 \\ BE_y &= 57,182tCO_2e \end{aligned}$$

5.2 Project Emissions

Since the project activity is a renewable energy project which generates electricity using wind power and hence does not result in project emissions as per the applicable methodology ACM0001, version 17.

$$\text{Thus, } PE_y = 0$$

5.3 Leakage

According to the applied methodology ACM0002, guidance on leakage, there is no leakage emission from this project activity has been considered.

$$\text{Thus, } LE_y = 0.$$

5.4 Net GHG Emission Reductions and Removals

According to equation prescribed in ACM0002 (version 17), the Emission Reduction is calculated by subtracting the project emissions from the baseline emissions

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2021	57,182	0	0	57,182
Total	57,182	0	0	57,182

ER comparison:

Start date of Monitoring period	01-Jan-21	Date
End date of Monitoring period	31-Dec-21	Date
Total days in the Monitoring period	365	Days
Annual Estimated emission Reduction as per registered PD	75,368	tCO ₂ e
Estimated emission reduction for this monitoring period	75,368	tCO ₂ e
Actual Emission Reduction	57,182	tCO ₂ e
Difference in Emission reduction	- 24.13%	%

As shown above, there is no increase in emission reductions during the current monitoring period as compared to the ex-ante estimate for the equivalent period. Whereas, due to lower PLF caused by shutdown downtime of a few WTGs, there was decrease in generation as compared to the projected generation, which has led to 24.13% lower ERs as compared to ex-ante value.

APPENDIX 1: METER CALIBRATION DETAIL

Sr. No	Customer Name	Individual Capacity	Site	Loc No.	Feeder details	Meter Serial Number	Accuracy Class	Make	Last Calibration
1	G. B. Rubber Products	0.8	Kadvekhurd	1	-	4760188	0.2	Elster	13-Aug-2018
2	G. B. Rubber Products	0.8	Kadvekhurd	2					
3	Shah Lulla Estate Developers	0.8	Kadvekhurd	4					
4	Atlas Tours & Travels Pvt. Ltd.	0.8	Kadvekhurd	5					
5	Liberty Oil Mills Ltd.	0.8	Kadvekhurd	6					
6	Liberty Oil Mills Ltd.	0.8	Kadvekhurd	7					
7	Liberty Oil Mills Ltd.	0.8	Kadvekhurd	8					
8	Liberty Oil Mills Ltd.	0.8	Varekarwadi	1	F-1	5269382	0.2	Elster	29-May-2018
9	Liberty Oil Mills Ltd.	0.8	Varekarwadi	2					
10	Delta Enterprises	0.8	Bhambarwadi	19	F-1	16595516	0.2	Elster	24-Apr-2018
11	Paceman Sales Promotion P. Ltd.	0.8	Bhambarwadi	36					
12	Delta Enterprises	0.8	Bhambarwadi	37					
13	Delta Enterprises	0.8	Bhambarwadi	38					
14	Mahanagar Developers	0.8	Bhambarwadi	63					
15	Kishor Food Products P. Ltd.	0.8	Bhambarwadi	47	F-3	04862747	0.2	Elster	05-May-2019
16	Shreem Capacitors Pvt. Ltd.	0.8	Bhambarwadi	50					
17	Shreem Capacitors Pvt. Ltd.	0.8	Bhambarwadi	51					
18	Shreem Capacitors Pvt. Ltd.	0.8	Bhambarwadi	52					
19	Mahanagar Developers	0.8	Bhambarwadi	53					
20	Mahanagar Developers	0.8	Bhambarwadi	54					
21	Mahanagar Developers	0.8	Bhambarwadi	55					
22	Mahanagar Developers	0.8	Bhambarwadi	56					
23	Mahanagar Developers	0.8	Bhambarwadi	57					
24	Shreem Capacitors Pvt. Ltd.	0.8	Bhambarwadi	58					

25	Mahanagar Developers	0.8	Bhambarwadi	60					
26	Mahanagar Developers	0.8	Bhambarwadi	61					
27	Mahanagar Developers	0.8	Bhambarwadi	62					
28	Mr. P. L. Patel	0.8	Panchpatta	45	F-1	14831531	0.2	Elster	18-Mar-2019
29	Metalfab Hightech Private Limited	0.8	Panchpatta	46					
30	Panama Wind Energy Pvt. Ltd./D.J. Malpani	0.8	Panchpatta	47					
31	Panama Wind Energy Pvt. Ltd. / D.J. Malpani	0.8	Panchpatta	48					
32	Gargi Construction Co. Pvt. Ltd.	0.8	Panchpatta	49					
33	Gargi Construction Co. Pvt. Ltd.	0.8	Panchpatta	50					
34	International Conveyors Ltd.	0.8	Panchpatta	51					
35	Elpro International	0.8	Panchpatta	52					
36	Mohite & Mohite	0.8	Panchpatta	59					
37	Mohite & Mohite	0.8	Panchpatta	60					
38	Mohite & Mohite	0.8	Panchpatta	61					
39	Welpack Industries Ltd.	0.8	Panchpatta	29	F-4	14831520	0.2	Elster	18-Mar-2019
40	Mahanagar Developers	0.8	Panchpatta	30					
41	Prachar Energy	0.8	Panchpatta	31					
42	Prachar Energy	0.8	Panchpatta	32					
43	Indiana Engineering Works (Bombay) P. Ltd.	0.8	Panchpatta	33					
44	Indiana Engineering Works (Bombay) P. Ltd.	0.8	Panchpatta	34	F-5	14831522	0.2	Elster	18-Mar-2019
45	Sahyadri Industries Ltd.	0.8	Panchpatta	74					
46	Sahyadri Industries Ltd.	0.8	Panchpatta	75	F-6	14831533	0.2	Elster	27-Mar-2019
47	Sunilkumar Ramanlal Shah	0.8	Panchpatta	77					
48	Mr. V. L. Patel	0.8	Panchpatta	76					
49	Mr. V. V. Patel	0.8	Panchpatta	80					
50	M/s Laxmi Narayan	0.8	Panchpatta	81					
51	Om Shanti Wind Farms P. Ltd.	0.8	Aundhewadi	82					
52	Mr. J. V. Patel	0.8	Panchpatta	83					
53	Mr. C. P. Patel	0.8	Panchpatta	84					

54	Mr. S. V. Patel	0.8	Panchpatta	94					
55	Mr. J. P. Patel	0.8	Panchpatta	95					

The frequency in meter testing/calibrations has been prescribed as once in five years, as per CEA Guidelines (Notification dated 17 March 2006). Also, the conducting meter testing/calibration is under the direct purview and control of MSEDCL.

The permanent deviation has been reported under the section 3.2.2. This deviation is in line with the para (2) of the section 3.19.2 of the VCS Standard V4.2.