



**Verified Carbon
Standard**

VASPET-II AND VASPET-III WIND POWER PROJECT, MAHARASHTRA

ReNew

Document Prepared by ReNew Power Private Limited

Project title	VASPET-II AND VASPET-III WIND POWER PROJECT, MAHARASHTRA
Project ID	VCS 1404
Monitoring period	03-April-2023 to 31-December-2024 (inclusive of both days)
Original date of issue	08-April-2025
Most recent date of issue	12-June-2025
Version	4.0
VCS Standard Version	4.7
Prepared by	Abhishek Anjan ReNew Hub, Commercial Block-1, Zone 6, Golf Course Road, DLF City, Phase-V, Gurugram- 122009, Haryana, India Website: www.renewpower.in Email ID: abhishek.anjan@renew.com

CONTENTS

PROJECT DETAILS	4
1.1 Summary Description of the Implementation Status of the Project	4
1.2 Audit History.....	5
1.3 Sectoral Scope and Project Type	6
1.4 Project Proponent	6
1.5 Other Entities Involved in the Project	7
1.6 Project Start Date	7
1.7 Project Crediting Period	7
1.8 Project Location	7
1.9 Title and Reference of Methodology	9
1.10 Double Counting and Participation under Other GHG Programs	10
1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions.....	10
1.12 Sustainable Development Contributions	11
1.13 Commercially Sensitive Information.....	15
2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT	15
2.1 Stakeholder Engagement and Consultation.....	15
2.2 Risks to Stakeholders and the Environment.....	17
2.3 Respect for Human Rights and Equity	19
2.4 Ecosystem Health	21
3 IMPLEMENTATION STATUS	23
3.1 Implementation Status of the Project Activity	23
3.2 Deviations	26
3.3 Grouped Projects	27
3.4 Baseline Reassessment.....	27
4 DATA AND PARAMETERS.....	27
4.1 Data and Parameters Available at Validation	27
4.2 Data and Parameters Monitored.....	29
4.3 Monitoring Plan.....	30
5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS	34
5.1 Baseline Emissions	34

5.2	Project Emissions	34
5.3	Leakage Emissions	34
5.4	GHG Emission Reductions and Carbon Dioxide Removals	34
APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION.....		37
APPENDIX 2: CALIBRATION DETAILS		38

PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project activity is a 49.50 MW (1.5 MW x 33 no. of WTG), Greenfield renewable wind energy projects in Sangli district in the state of Maharashtra. The purpose of the project activity is to generate clean power utilizing wind energy and sell it to the Indian grid through a long-term Power Purchase Agreement (PPA).

The details of the project activity is provided in the table below:

Sr. No.	Location No	Village	Date of Commissioning
1	VASP-15	Shedyal	03/04/2013
2	VASP-72	Shedyal	
3	VASP-142	Shedyal	
4	VASP-29	Shedyal	
5	VASP-64	Salekiri	
6	VASP-35	Salekiri	
7	VASP-09	Salekiri	
8	VASP-49	Salekiri	
9	VASP-237	Shedyal	26/06/2013
10	VASP-450	Shedyal	
11	VAPS III 698	Valsang	
12	VASP-394	Salekiri	
13	VAPS III 26	Valsang	
14	VASP-564	Valsang	03/04/2013
15	VASP-510	Valsang	
16	VASP-637	Valsang	
17	VASP-696	Valsang	24/06/2013
18	VASP-92	Shedyal	30/08/2013
19	VASP-21	Valsang	30/08/2013
20	VAPS III 397	Shedyal	26/06/2013
21	VAPS III 384V	Valsang	
22	VAPS III 440	Valsang	
23	VAPS III 58	Salekiri	01/08/2013
24	VAPS III 525	Valsang	21/08/2013
25	VAPS III 387	Valsang	01/08/2013
26	VAPS III 388	Valsang	19/07/2013
27	VAPS III 689	Valsang	21/08/2013
28	VAPS III 424	Shedyal	21/08/2013
29	VAPS III 108	Salekiri	
30	VAPS III 700/1	Valsang	21/08/2013
31	VAPS III 463	Valsang	
32	VAPS III 105	Shedyal	

33	VAPS III 355	Shedyal	29/08/2013
----	--------------	---------	------------

All the WTGs are of Renew Wind Energy (Shivpur) Pvt.Ltd.

Total emission reductions achieved in this monitoring period:

During the Current Monitoring Period from 3-April-2023 to 31-December-2024 (First and last date included) the project activity has supplied 167,937.97 MWh of electricity and thus contributing to the GHG reductions 157,055 tCO₂e (Round down value).

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Validation	04-August 2014 to 03-August-2021	CDM	Perry Johnson Registrars Carbon Emissions Services Inc	07 Years
Validation	03-April-2013 to 02-April-2023	VCS	Perry Johnson Registrars Carbon Emissions Services Inc	10 Years
Verification	03-April-2013 – 03-August-2014	VCS	Bureau Veritas Certification Holding SAS	1 year 4 months
Verification	04-August-2014 – 02-April-2020	VCS	KBS Certification Services Pvt. Ltd.	5 years 8 months
Verification	03-April-2020 to 31-December-2021	VCS	RINA Services S.p.A (RINA)	1 year 8 months 29 days
Verification	01-January-2022 – 30-June-2022	VCS	LGAI Technological Center S. A. (Applus+ Certification)	6months
Verification	01-July-2022 – 31-December 2022	VCS	Earthood Services Private Limited	6 months

Verification	01-January-2023 – 02-April-2023	VCS	Earthood Services Private Limited	3 months 2 days
Validation (Renewal of Crediting Period)	03-April-2023 to 02-April-2033	VCS	Earthood Services Private Limited	10 Years
Verification	03-April-2023 – 31-December-2024	VCS	LGAJ Technological Center S. A. (Applus+ Certification)	20 months 28 days
Total	03-April-2013 – 31-December-2024	-	-	11 years 08 months

1.3 Sectoral Scope and Project Type

Sectoral scope ¹	01 Energy Industries (Renewable - / Non-renewable sources)
Project activity type	Renewable type (wind)

1.4 Project Proponent

Organization name	M/s. ReNew Wind Energy (Shivpur) Private Limited
Contact person	Mr. Abhishek Anjan
Title	PP Representative
Address	ReNew Hub, Commercial Block-1, Zone 6, Golf Course Road, DLF City, Phase-V, Gurugram- 122009, Haryana
Telephone	+91-9639546799
Email	abhishek.anjan@renew.com

¹ Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: <https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes>

1.5 Other Entities Involved in the Project

Organization name	NA
Role in the project	NA
Contact person	NA
Title	NA
Address	NA
Telephone	NA
Email	NA

1.6 Project Start Date

Project start date	03-April-2013
Justification	As per §3.8 of VCS Standard, v4.7; the project start date is 03-April-2013 (Date of commissioning of first WEG).

1.7 Project Crediting Period

Crediting period	☐ <i>Seven years, twice renewable</i> ☐ <i>Ten years, fixed</i> ☒ <i>Other (Project activity was registered in VCS standard v3.4 and as per VCS standard crediting period must be 10 years which is renewable twice.)</i>
Start and end date of first or fixed crediting period	Duration of Second Crediting Period: 03-April-2023 to 02-April-2033

1.8 Project Location

The PA is located in villages Shedyal, Salekiri and Valsang in Sangli district of Maharashtra state, India.

Nearest Airport: Pune, ~290 km;

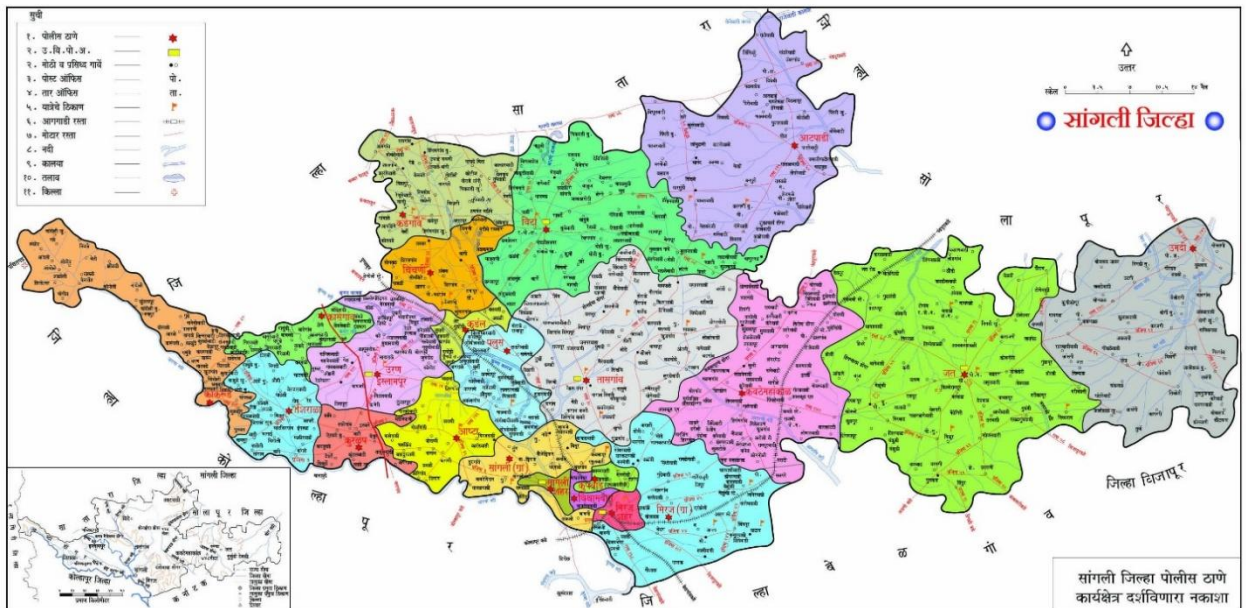
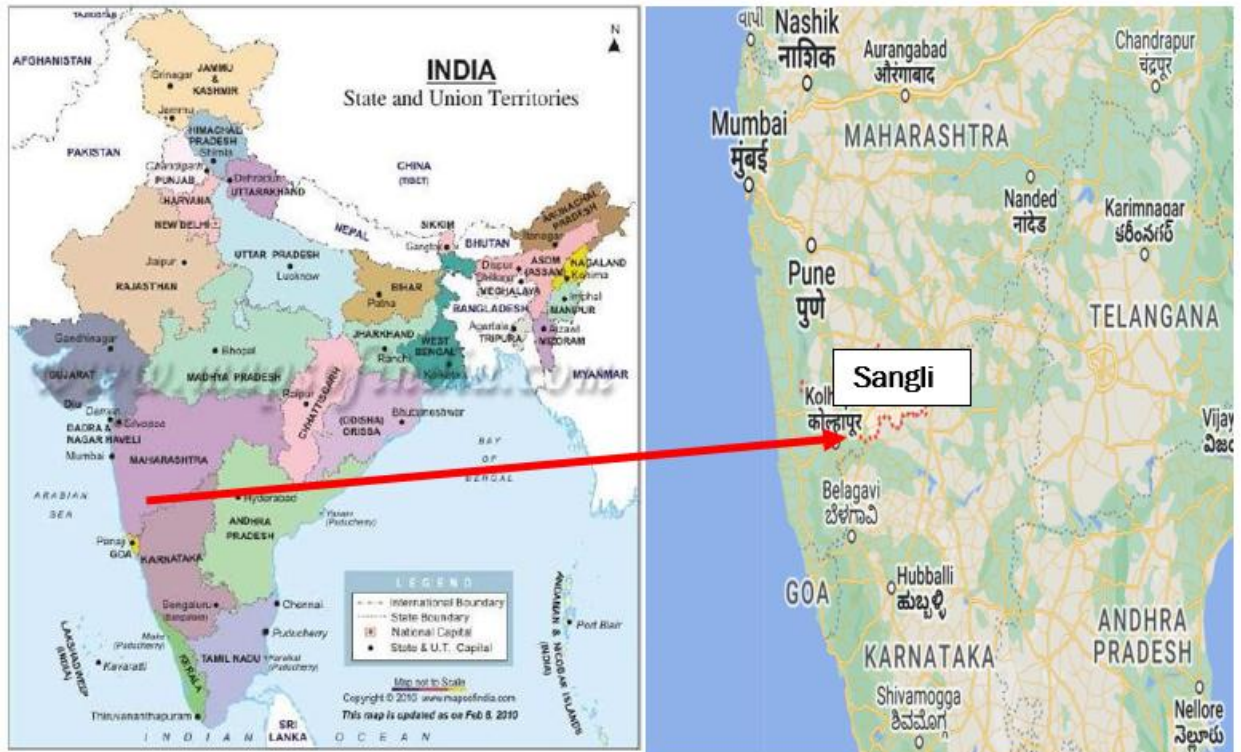
Nearest Railway Station: Karad, 75 km;

Nearest Seaport: Mumbai, 440 km

The unique geographical coordinates of the individual power units in PA (Project activity) are as follows –

Sr. No.	Location No	Village	Geographical Coordinates	
			Longitude	Latitude
1	VASP-237	Shedyal	75° 20' 56.4514" E	17° 01' 14.6452" N
2	VASP-15	Shedyal	75° 19' 31.3348" E	17° 02' 53.5497" N
3	VASP-72	Shedyal	75° 20' 8.6334" E	17° 03' 3.2863" N
4	VASP-142	Shedyal	75° 20' 4.2664" E	17° 02' 27.6631" N
5	VASP-29	Shedyal	75° 19' 8.0164" E	17° 02' 48.5783" N
6	VASP-64	Salekiri	75° 18' 35.0024" E	17° 02' 11.8565" N
7	VASP-35	Salekiri	75° 18' 39.8914" E	17° 02' 41.1351" N
8	VASP-394	Salekiri	75° 18' 18.6328" E	17° 03' 7.5916" N
9	VASP-09	Salekiri	75° 18' 44.8077" E	17° 03' 2.2838" N
10	VASP-49	Salekiri	75° 18' 11.8762" E	17° 02' 29.9222" N
11	VASP-450	Shedyal	75° 18' 54.6680" E	17° 02' 25.2324" N
12	VASP-564	Valsang	75° 20' 7.6447" E	17° 04' 7.0070" N
13	VASP-510	Valsang	75° 20' 15.7471" E	17° 03' 26.2202" N
14	VASP-637	Valsang	75° 20' 58.5114" E	17° 03' 43.2971" N
15	VASP-696	Valsang	75° 20' 46.8109" E	17° 03' 30.5873" N
16	VASP-92	Shedyal	75° 21' 41.3580" E	17° 03' 0.8830" N
17	VASP-21	Valsang	75° 18' 26.6254" E	17° 03' 31.1435" N
18	VAPS III 397	Shedyal	75° 18' 51.7841" E	17° 01' 44.2053" N
19	VAPS III 26	Valsang	75° 18' 23.3569" E	17° 03' 19.9168" N
20	VAPS III 58	Salekiri	75° 18' 16.6827" E	17° 02' 17.7754" N
21	VAPS III 525	Valsang	75° 20' 19.5374" E	17° 03' 58.2660" N
22	VAPS III 384V	Valsang	75° 19' 3.7317" E	17° 04' 24.4203" N
23	VAPS III 387	Valsang	75° 19' 5.1874" E	17° 04' 38.9978" N
24	VAPS III 388	Valsang	75° 19' 10.1862" E	17° 05' 2.7420" N
25	VAPS III 700/1	Valsang	75° 20' 37.6648" E	17° 03' 15.9618" N
26	VAPS III 689	Valsang	75° 21' 18.2867" E	17° 03' 37.0143" N
27	VAPS III 355	Shedyal	75° 19' 44.8206" E	17° 01' 0.4797" N
28	VAPS III 698	Valsang	75° 21' 0.9283" E	17° 03' 19.7314" N
29	VAPS III 108	Salekiri	75° 18' 14.7601" E	17° 01' 42.7977" N
30	VAPS III 440	Valsang	75° 19' 6.7255" E	17° 03' 46.8951" N
31	VAPS III 463	Valsang	75° 19' 16.5582" E	17° 03' 36.3689" N
32	VAPS III 105	Shedyal	75° 21' 22.1594" E	17° 02' 47.0197" N
33	VAPS III 424	Shedyal	75° 18' 45.6317" E	17° 01' 28.2339" N

Location map of the project activity in India and Sangli district of Maharashtra.



1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	ACM0002	Grid-connected electricity generation from renewable sources ²	21.0
Tool	Tool 07	Tool to calculate the emission factor for an electricity system ³	07.0
Tool	Tool 01	Tool for the demonstration and assessment of additionality ⁴	07.0.0

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Was the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

² <https://cdm.unfccc.int/methodologies/DB/HF3LP6O41YY0JIP1DK6ZRJO9RSCX3S>

³ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf>

⁴ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf>

☐ Yes ☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

If yes:

Is the project proponent(s) or authorized representative a buyer or seller of the product(s) (goods or services) that are part of a supply chain?

☐ Yes ☐ No

If yes:

Has the project proponent(s) or authorized representative posted a public statement on their website saying, "Carbon credits may be issued through the Verified Carbon Standard project [project ID] for the greenhouse gas emission reductions or removals associated with [project proponent or authorized representative organization name(s)] [name of product(s) whose emissions footprint is changed by the project activities]."

☐ Yes ☐ No

If yes to all:

Provide evidence of the public statement. Evidence must be provided in this section or in an appendix.

1.12 Sustainable Development Contributions

Contribution to sustainable development:

The Ministry of Environment, Forest and Climate Change, has stipulated economic, social, environment and technological well-being as the four indicators of sustainable development. The project contributes to sustainable development using the following ways.

Social well-being: The project helps in generating employment opportunities during the construction and operation phases. The project activity leads to development in infrastructure in the region like development of roads and also may promote business with improved power generation.

Economic well-being: The project is a clean technological investment in the region, which would not have taken place in the absence of the VCS benefits. The project activity helps to reduce the supply demand gap in the state.

Technological well-being: The successful operation of project activity leads to the promotion of wind power generation and encourages other entrepreneurs to participate in similar projects

Environmental well-being: Wind power being a renewable source of energy, it reduces the dependence on fossil fuels and conserves natural resources which are on the verge of depletion. Due to its zero emissions, the Project activity also helps in avoiding significant amount of GHG emission.

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	7.2	7.2.1. - By 2030, increase substantially the share of renewable energy in the global energy mix	Implemented activities to increase	167,937.97 MWh	1,022,409.78 MWh (107,922 MWh + 501,095.14 MWh + 150,651.32 MWh + 38,705.42 MWh + 44,553.31 MWh + 11,544.62 MWh + 167,937.97 MWh)
2)	13.2	13.2.2 - Integrate climate change measures into national policies, strategies and planning	Implemented activities to decrease	157,055 tCO ₂ e	971,200 tCO ₂ e (102,835.00 tCO ₂ e + 477,443.00 tCO ₂ e + 143,540.00 tCO ₂ e + 36,878.00 tCO ₂ e + 42,450.00 tCO ₂ e + 10,999.00 tCO ₂ e + 157,055.00 tCO ₂ e)

3)	8.5	8.5.2 by 2030 achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	Implemented activities to decrease unemployment rate	Total - 28 ⁵ people were employed during this monitoring period. Thus, the project activity is contributing. in the reduction of unemployment rate. Further the bifurcation on contractual and permanent employees is as mentioned below – <table><tr><th colspan="2">Contractual</th><th colspan="2">Permanent</th></tr><tr><th>Male</th><th>Female</th><th>Male</th><th>Female</th></tr><tr><td>9</td><td>0</td><td>17</td><td>2</td></tr></table>	Contractual		Permanent		Male	Female	Male	Female	9	0	17	2	37 Jobs ⁶ . Further the bifurcation on contractual and permanent employees is as mentioned below – <table><tr><th colspan="2">Contractual</th><th colspan="2">Permanent</th></tr><tr><th>Male</th><th>Female</th><th>Male</th><th>Female</th></tr><tr><td>18</td><td>0</td><td>17</td><td>2</td></tr></table>	Contractual		Permanent		Male	Female	Male	Female	18	0	17	2
Contractual		Permanent																											
Male	Female	Male	Female																										
9	0	17	2																										
Contractual		Permanent																											
Male	Female	Male	Female																										
18	0	17	2																										

⁵ This number refers to the total employment opportunities generated for the current monitoring period. For the Previous Periodic Verification (01-January-2023 to 02-April-2023) only 9 employment was demonstrated and all were contractual employment. Thus, for this monitoring period 9 additional contractual employment were generated. Since the 19 permanent employments were not demonstrated in the previous monitoring period. Thus, the same is accounted for the current monitoring period.

⁶ The number 37 jobs refers to the overall employment that is generated for the previous and the current periodic verification. Since the demonstration of minimum 3 SDGs is a new mandate and is being demonstrated only from the previous periodic verification, so these 37 jobs are inclusive of the 9 contractual employment that were demonstrated in the periodic verification (01-January-2023 to 02-April-2023).

1.13 Commercially Sensitive Information

Not applicable. No commercially sensitive information has been excluded from the public version of the project description. There is no commercially sensitive information.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

Stakeholder Identification	Since none of the stakeholders have been changed since validation and all the identified stakeholders were involved and no new group of stakeholders are to be included for this ongoing verification.
Legal or customary tenure/access rights	All legal or customary tenure/access rights are with the Project Proponent. Before the commencement of the project, all the land parcels required were legally acquired from the respective land owners and proper compensation and settlement were completed at the time of acquisition itself.
Stakeholder diversity and changes over time	Not Applicable
Expected changes in well-being	Not Applicable
Location of stakeholders	The Project is located in the Villages of Shedyal, Salekiri and Valsang in Sangli district of Maharashtra state in India. Before the commencement of the project, all the land parcels required were legally acquired from the respective land owners. At the time of establishment of the project activity. Further for the current monitoring period there is no any relocation of any stakeholder with whom the land was acquired
Location of resources	All the project resources including wind turbines, transformer stations and associated infrastructure are strategically located within the project boundary on land acquired specifically for the project. Further for the current monitoring period there is no any relocation of any resources associated with the project

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	The process of local stakeholder consultation is continuous. During the current monitoring period, the project proponent has kept grievance register in plant site office and sought comments/grievances/suggestions from local stakeholders including local community, government agencies and NGOs.
Date(s) of stakeholder consultation	19-December-2013
Communication of monitored results	The monitoring results are communicated from the concerned individuals (stakeholders) to PP, through the grievance register. The site officials acknowledge and address the comments, suggestions, or grievances submitted by stakeholders, resolving issues as needed.
Consultation records	Register is used to records the grievances and feedback. Grievance register is placed at the site office and is accessible to everyone. In addition to maintaining a grievance register, three additional methods are implemented to ensure ongoing stakeholder consultation as described below – 1. A QR-Code is displayed at the project site for access to the Online Grievance Portal⁷ is accessible to all the Stakeholders at the Project Site. 2. Grievances of the stakeholders in the form of Letters are properly addressed if received 3. Grievances of the stakeholders in the form of Telephonic Conversation if received on numbers +91 9890037936 and +91 9075001353 are properly addressed.
Stakeholder input	As a part of continuous feedback from stakeholders, the PP also placed a grievance register onsite wherein the stakeholders can put down their complaints and the same, if found genuine, are addressed immediately. However, during the current monitoring period, no comments or feedbacks were received.

2.1.3 Free, Prior, and Informed Consent

Consent	The project secured consent through inclusive community consultations, involving Indigenous Peoples (IPs), Local Communities (LCs), and NGOs. Extensive engagement, transparent information sharing, and acknowledgment of customary rights were key.
---------	---

⁷ ReNew Power Limited Sign-On » Benchmark Gensuite Home

	Continuous monitoring and evaluation demonstrate the commitment to transparency and positive community outcomes. The absence of ongoing conflicts reflects the project's success in aligning with stakeholder interests and maintaining a harmonious relationship with the community.
Outcome of FPIC	The Free, Prior, and Informed Consent (FPIC) process for the project resulted in a positive outcome. Transparent agreements were reached with Indigenous Peoples (IPs), Local Communities (LCs), and NGOs. Information disclosed included project details, potential impacts, and benefits, ensuring stakeholders' understanding. Assurance is provided that the project adheres to ethical standards - no encroachment on existing land occurred, and no forced physical or economic displacement took place. The project utilized unused, greenfield land, and the absence of relocation signifies the commitment to responsible and sustainable development practices.

2.1.4 Grievance Redress Procedure

The stakeholders are also requested to share their experiences and grievances on continuous basis. Register is used to records the grievances and feedback. Grievance register is placed at the site office and is accessible to everyone. During the current monitoring period, positive feedbacks had been received regarding site operation. No grievances were received during the current monitoring period; therefore, no any mitigation measures were required. In case of grievances, the nature of probable resolution is discussed with the plant head office and implemented by the site in-charge.

Grievances received	Resolution and outcome
NA	NA

2.1.5 Public Comments

There was no negative feedback from any of the stakeholders who attended the meeting. They in fact supported the initiative taken by the project proponent for carrying out such an activity in the region. Hence, there is no need to take due account of the comments.:

Summary of comments received	Actions taken
NA	NA

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

The project showcases management expertise in renewable energy initiatives and effective community engagement. With a proven track record, the team emphasizes transparent communication, relationship-building, and culturally sensitive approaches. Strategic

partnerships are forged to fill expertise gaps, and a dynamic recruitment strategy is in place for skill diversification. Additionally, other similar project activities are also implemented under Verra and other reputable crediting programs, ensuring compliance with established environmental standards and enhancing the project's credibility and impact.

2.2.2 Risk assessment

	Risk identified	Mitigation or preventative measure(s) taken
Natural and human-induced risks to stakeholders' wellbeing	No risk identified	The project activity is a 49.50 MW (1.5 MW x 33 no. of WTG), Greenfield renewable wind energy project. Hence, it does not cause harm to the stakeholders and their local environmental well-being. The project proponent has carefully selected the site that brings no harm to the natural ecosystem of the area
Risks to stakeholder participation	No risk to stakeholder participation is anticipated	There are no exclusions, lack of communication or barriers in the project activity, that might prevent stakeholders from engaging or participating.
Working conditions	No risk identified	There are no risks related to working conditions of the employees in the project activity, due to comprehensive safety training programs for the workers/employees.
Safety of women and girls	No risk identified	The project activity has no negative impact over the safety of women and girls. Also, the safety concerns of the women and girls are addressed through the interactions with the stakeholders and resolved as per requirement. Moreover, the project strictly adheres to the laws for the women and girls, demonstrating the commitment to address any threat related to the safety of the women/girls of the project location.
Safety of minority and marginalized groups, including children	No risk identified	No threats to the safety of minority and marginalized groups, including children have been identified. The PP duly diligently follows the legal and human rights of the children, minorities and marginalized

		groups, and hence, the project poses no negative effects on them.
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified	There is no risk due to generation of pollutants (noise, discharges to water, generation of waste, and release of hazardous materials), due to project activity. Shadow flickering and noise effects from the project activity do not affect the residential areas as no residential area falls under the vicinity of the project activity. Also, the waste is collected and stored in appropriate bins/ storage with cover lid, separate by type of waste before contacting the contracted agencies authorized by the government to pick up for further disposal. The project rather improves air quality by preventing fossil fuel burns and mitigates climate change by producing electricity from a clean source of energy, i.e. wind energy.

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

	Risks identified ⁸	Mitigation or preventative measure(s) taken
Discrimination	No Risk identified	During the monitoring period, all work and labor practices will be conducted fairly and equitably, with a commitment to non-discrimination.
Sexual harassment	No Risk identified	During the monitoring period, no sexual harassment will occur related to work and labour. The policies are being followed as per local law.

⁸ The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

Gender equity in labor and work	No Risk identified	During the monitoring period, there is no discrimination in workers with respect to gender in providing jobs and also there is no discrimination in respect to wages between genders.
Forced labor	No Risk identified	During the monitoring period, no forced labour is imposed and all the workers are working on their own will.
Child labor	No Risk identified	During the monitoring period no any employment has been provided to child labor
Human trafficking	No Risk identified	During the monitoring period, no any victims of human trafficking were utilized and no any stakeholder related to the project activity is involved in any such kind of activities..

2.3.2 Human Rights

The following demonstrations show how the project is committed to safeguard the rights of IPs, LCs, and customary right holders, while following the international human rights law⁹, the UNDRIP¹⁰ and ILO Convention 169-

- **Free, Prior, and Informed Consent (FPIC):** The project activity has obtained the FPIC from the local stakeholders including the IPs, LCs and customary right holders, ensuring their unforced consent before the project operation, respecting their right to make decisions.
- **Non-discriminatory Participation in the Project Activity-** The project distributed devices without cultural or social biases, safeguarding the rights of IPs, LCs, and customary rights holders to be free from discrimination.

Employment due to the Project Activity- The project activity also leads to the employment from the IPs, LCs and customary right holders, enabling them to exercise their right to fair treatment in employment and salary.

Risks identified	Mitigation or preventative measure(s) taken
NA	NA

⁹ <https://www.ohchr.org/sites/default/files/Documents/Publications/fs9Rev.2.pdf>

¹⁰ https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Mitigation(s) or preventative measure taken
No risks identified	The project activity has been developed and executed with careful consideration of the surrounding environment, including both tangible and intangible cultural heritage, as well as the rights of indigenous communities. The project has been designed in such a manner that it does not have any adverse impact on cultural heritage sites or on the traditions and practices of local indigenous populations.

2.3.4 Property Rights

Risks identified	Mitigation or preventative measure(s) taken
No risks identified	The land / property for the project activity belongs to the project proponent. Additionally, the project activity has obtained the free, prior and informed consent of the stakeholders (including the IPs, LCs, and customary rights holders). This ensures that their lands are property rights are protected and respected.

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	Since no risks are identified in the above section 2.3.4, hence this section is also not applicable
Benefit sharing during the monitoring period	N/A

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure(s) taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified	This project activity doesn't result in adverse effects; instead, it positively impacts on the biodiversity and ecosystem by decreasing air pollution and mitigating climate change.
Soil degradation and soil erosion	No risk identified	This project activity keeps check of the soil degradation and soil erosion by periodic monitoring.

Water consumption and stress	No risk identified	This project activity is a wind power project and does not have any negative impacts on water consumption or does not lead to water stress in any way.
------------------------------	--------------------	--

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	The project activity has not adversely impacted habitats for rare, threatened, or endangered species during the monitoring period. No species were removed or harmed due to the project activity.
Areas needed for habitat connectivity	The project activity has not adversely impacted areas needed for habitat connectivity during the monitoring period.

	Risks identified	Mitigation or preventative measure(s) taken
Habitats for rare, threatened, and endangered species	No risk identified	The project activity has not adversely impacted habitats for rare, threatened and endangered species during the monitoring period.
Areas for habitat connectivity	No risk identified	The project activity has not adversely impacted areas needed for habitat connectivity during the monitoring period.

2.4.2 Introduction of species

Species introduced	Classification	Justification for use	Adverse effects and mitigation
N/A	N/A	N/A	N/A

Existing invasive species	Mitigation measures to prevent the spread or continued existence of invasive species
N/A	N/A

	Risks identified	Mitigation or preventative measure(s) taken
Invasive species	N/A	N/A

2.4.3 Ecosystem conversion

Since, the project activity is neither ARR, ALM, WRC nor ACoGS, hence this information is not applicable.

	Risks identified	Mitigation or preventative measure(s) taken
Ecosystem conversion	N/A	N/A

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The Project Activity is implementation of a 49.50 MW wind power project consisting of 33 Wind Turbine Generators (WTGs) of individual capacity 1.5 MW in Sangli district, Maharashtra by ReNew Wind Energy (Shivpur) Private Limited. The project is completely commissioned and connected to Indian grid. A comprehensive list of WTGs commissioning dates is provided below.

Location No.	Agg. Capacity (MW)	District	State	Commissioning Date
VASP-35 VASP-49 VASP-64 VASP-09 VASP-510 VASP-564 VASP-637 VASP-29 VASP-72 VASP-142 VASP-15	16.50	Sangli	Maharashtra	03-April-2013
VASP III-388	1.50			19-April-2013
VASP-696	1.50			24-June-2013
VASP III-384V VASP III-397 VASP III-440 VASP III-26 VASP III-698 VASP-237 VASP-450 VASP-394	12.00			26-June-2013
VASP III-387 VASP III-58	3.00			01-August-2013
VASP III-700/1				

Location No.	Agg. Capacity (MW)	District	State	Commissioning Date
VASP III-424 VASP III-108 VASP III-463 VASP III-525 VASP III-689	9.00			21-August-2013
VASP III-105 VASP III-355	3.00			29-August-2013
VASP-92 VASP-21	3.00			30-August-2013

The technical specifications of WTGs are shown below:

Parameter	Specification/ Value (With Unit)
Manufacturer	ReGen Powertech Private Limited
Rated Power	1500Kw
Rotor Diameter	82 m
Hub Height	85 m
Turbine Type	Direct drive horizontal axis with variable rotor speed
Power Regulation	Independent electromechanical pitch system for each blade
Cut-in wind speed	3 m/s
Rated wind speed	13 m/s
Cut-out wind speed	22 m/s
Operational range of rot. Speed	9 – 17.3 rpm
Orientation	Upwind
No. of blades	3
Blade Material	Glass fibre reinforced plastic
Gear box type	Gearless
Generator type	Synchronous, variable speed
Braking	Aerodynamic
Output voltage	620V
Tower height	85 m
Useful life	20 years

The Energy meters installed for the measurement of electricity are of two different makes: Elster A1800 ALPHA and Secure Apex 150. The Specific details regarding the make and corresponding serial numbers of each installed meter are provided in Appendix 2.

The technical Specifications of the respective energy meters are outlined below –

a. Technical Specifications of Elster A1800 ALPHA¹¹

Parameter	Specifications
Accuracy	Active energy 0.2 % (IEC 62053-22) 0.5 % (IEC 62053-22)
Maximum current	Continuous at 10 A Temporary (0.5 seconds) at 2000 % of maximum meter current

¹¹ <https://www.rayleigh.com/media/uploads/Elster-A1800-DS42-1014A.pdf>

Current rating	1(10)A, 5(10)A; optional 5(20)A
Starting current	1 mA
Voltage range	58 V to 415 V nominal range
Maximum range	Continuous 498 VAC
Frequency	Nominal 50 Hz or 60 Hz $\pm$ 5 %
Temperature range	(-)40 °C to (+)85 °C (inside meter cover); -40 °C to +60 °C (outside)
Humidity range	0 % to 100 % noncondensing
Power supply burden	Less than 3 W
Creep 0.000 A (no current)	No more than 1 pulse per quantity, conforming to IEC 62053 requirements
Internal clock accuracy	Better than 0.5 seconds per day (while powered)
Read without Power	20 years based on 6 uses per year and 3 write operations per each use

b. Technical Specifications of Secure Apex 150¹²

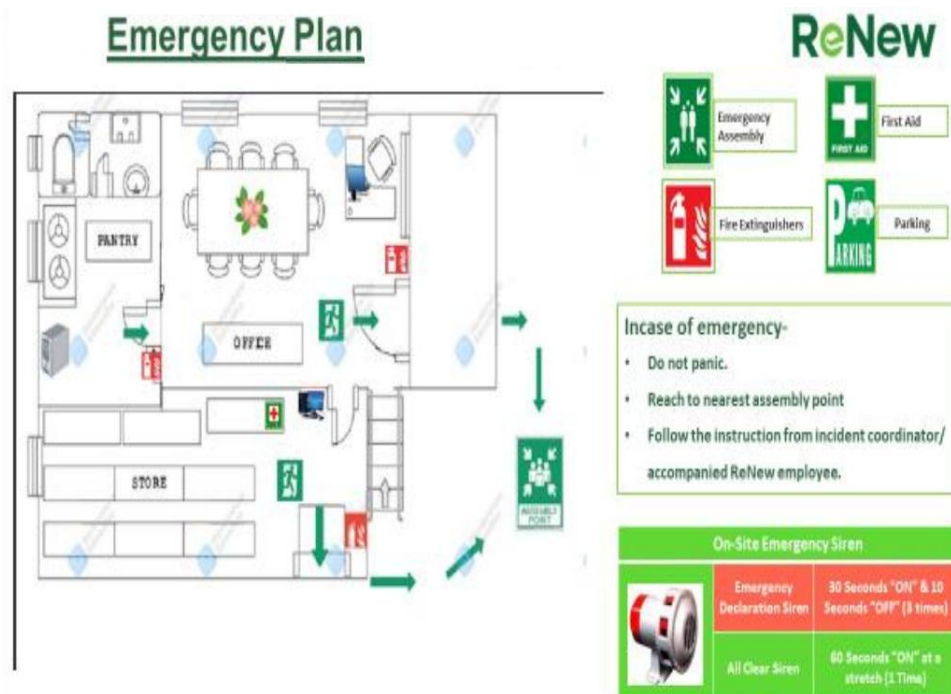
Parameter	Specifications
Connection type	HV3/HV4
Measurement voltage range	57.7 V or 63.5 V (L-N) for HV4, 100 or 110 V (L-L) for HV3
Measurement current range	1-10 A (configurable)
Frequency	50 Hz $\pm$ 5%
Burden with auxiliary/self (VT) powered	Current circuit: < 0.1 VA/phase @ 1A, < 0.5 VA/phase @ 5A Voltage circuit in case of Aux power: < 0.1 VA/phase Voltage circuit in case of internal/self power: < 6 VA/phase
Accuracy	Class 0.2S
Maximum overload Voltage	1.5 times of nominal voltage continuously 2 times of nominal voltage for 0.5 second
Maximum overload current	Maximum overload current
Operating temperature	(-)10 °C to (+) 60 °C
Limit range of operation	(-)25 °C to (+) 70 °C
Power supply	Dual/single auxiliary supply Range: 60-240 V AC/DC ($\pm$ 20%), burden: <10VA Optional range: 24-48 V DC ($\pm$ 20%), burden: <10VA

¹² <https://www.securemeters.com/wp-content/uploads/2023/06/Apex-150.pdf>

The project has been under operation since commissioning (earliest date of commissioning is 03-April-2013 and other commissioning dates are mentioned in the above table) without any major breakdowns. Though normal breakdowns due to O&M measures are continuously being worked upon by the dedicated O&M contractor for the project's WTGs. There have been no events that may have an impact on the GHG emissions or removals during the current monitoring period.

There are no any DG Sets employed at the project site for the backup of emergency situations. Renserv Global Private Limited is responsible for carrying out the operation and maintenance activities at the project site. During the current monitoring period that is from 03-April-2023 to 31-December-2024, the Project achieved a Plant Load Factor of 22.13% with no any major breakdowns. All the circuit breakers used at the project sites are Vacuum Circuit Breaker, manufactured by Schneider Electric. For the emergency situations an Emergency Preparedness and Response Plan is strictly being followed at the project site which consists of procedures to encounter any emergency situation that could cause death, injury, disruption of operations, or physical or environmental damage.

The evacuation plan being followed at the site is as mentioned below –



Further, there are no changes to the project participant for the project activity during the monitoring period.

3.2 Deviations

3.2.1 Methodology Deviations

There has not been any methodology deviation during the aforesaid monitoring period (01-January-2023 to 02-April-2023).

3.2.2 Project Description Deviations

Project activity was registered in VCS standard v3.4 and as per VCS standard crediting period must be 10 years which is renewable twice. However, VCS PD mentioned as "Project Crediting Period: 03-April-2013 – 02-April-2020, Number of years: 7 years". There was a typo error while mentioning the crediting period. Thus, we have taken deviation during the VCS verification period 03-April-2020 to 31-December-2021 to change the crediting period as 10 years which is renewable twice which was approved.

3.3 Grouped Projects

Not applicable, as this is not a grouped project activity.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF _{grid BM,y}
Data unit	tCO ₂ /MWh
Description	The Build Margin emission factor of Indian grid
Source of data	Calculated as per the "Tool to calculate the emission factor for an electricity system". CO ₂ Emission Database, Version 19, December- 2023 published by Central Electricity Authority (CEA), Government of India. https://cea.nic.in/wp-content/uploads/baseline/2024/04/User_Guide_Version_19.0.pdf
Value applied	0.8670
Justification of choice of data or description of measurement methods and procedures applied	As per the "Tool to calculate the emission factor for an electricity system". Calculated as the latest information (2022-2023)
Purpose of data	Calculation of baseline emissions
Comments	Parameter was determined ex-ante and would not be monitored during the crediting period.

Data / Parameter	EF _{grid OM,y}
Data unit	tCO ₂ /MWh
Description	The Operating Margin emission factor of Indian grid
Source of data	Calculated as per the “Tool to calculate the emission factor for an electricity system”. CO₂ Emission Database, Version 19, December-2023 published by Central Electricity Authority (CEA), Government of India. https://cea.nic.in/wp-content/uploads/baseline/2024/04/User_Guide__Version_19.0.pdf
Value applied:	0.9580
Justification of choice of data or description of measurement methods and procedures applied	As per the “Tool to calculate the emission factor for an electricity system”. Calculated as the last 3 year (2020-21, 2021-22, 2022-2023) generation-weighted average, sourced from Baseline CO ₂ Emission Database, Version 19 December 2023 published by Central Electricity Authority (CEA), Government of India.
Purpose of Data	Calculation of baseline emissions
Comments	Parameter was determined ex-ante and would not be monitored during the crediting period.

Data / Parameter	EF _{grid CM,y}
Data unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” for Indian Grid.
Source of data	Calculated as per the “Tool to calculate the emission factor for an electricity system”. CO₂ Emission Database, Version 19, December-2023 published by Central Electricity Authority (CEA), Government of India. https://cea.nic.in/wp-content/uploads/baseline/2024/04/User_Guide__Version_19.0.pdf

Value applied:	0.9352
Justification of choice of data or description of measurement methods and procedures applied	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Baseline CO2 Emission Database, Version 19.0, December – 23 published by Central Electricity Authority (CEA), Government of India.
Purpose of Data	Calculation of baseline emissions
Comments	-

4.2 Data and Parameters Monitored

Data / Parameter	EG _{facility,y}
Data unit	MWh
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Source of data	Joint meter reading OR Credit Note provided by Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)
Description of measurement methods and procedures to be applied	The JMR is usually taken once in month for the bulk/ revenue meter at the common substation. Also, with the individual WTG controller electricity meters (both import and export) or CMS data, the JMR also gives (where applicable – apportioned) electricity import of each WTG and losses till metering point. By using these data, net export by the WTGs in the PA will be calculated (as in some case net export is not explicitly reported in JMR). Recording Frequency: Continuous monitoring and monthly recording Responsibility: The operators/ O&M team will be responsible for measurement Calibration Testing Frequency: Annually Accuracy class of meters: 0.2s/ 0.5s (as per state regulation) Archiving: Crediting Period + 2 years
Frequency of monitoring/recording	Continuous measurement and at least monthly recording
Value monitored	167,937.97
Monitoring equipment	Electricity meters (bulk, WTG controller/ CMS) Recording: Electronic and paper

	Meter Details:				
	FEEDER #	STATUS	Old S. NO.	New S.NO	ACCURACY CLASS
	01	Main	13769363	Q0788361	0.2s
		Check	02797655	02797655	0.2s
	02	Main	13813570	13813570	0.2s
		Check	13813547	Q0793603	0.2s
	06	Main	13813551	Q0788360	0.2s
		Check	X1350784	X1350784	0.2s
	07	Main	15687854	15687854	0.2s
		Check	14953662	Q0828036	0.2s
QA/QC procedures to be applied	Cross check measurement results with records for sold electricity – where electricity sale is applicable				
Purpose of the data	Baseline emissions calculation				
Calculation method	Net Electricity Exported = Electricity Export - Electricity Import				
Comments	Data will be archived for more than two years after end of crediting period or last issuance, whichever later				

4.3 Monitoring Plan

The monitoring team includes PP's employees and O&M contractor's representatives.

Meter readings are taken jointly at the appointed date by PP's representative, Renserv Global Private Limited official and Maharashtra State Electricity Distribution Company Limited (MSEDCL) official. The same is reported as Joint Meter Reports (JMR). The same is reported to the O&M team and the complied reports will be generated in the form of Credit Notes.

Net electricity supplied by the project activity to the grid is cross-checked with records for sold electricity by invoices raised for the payment purpose.

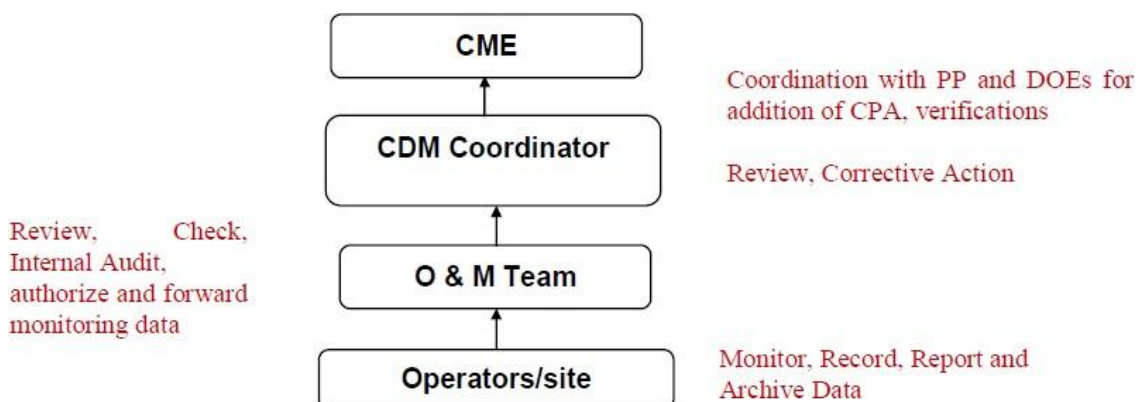
One metering system is there at the substation and another at the WTG site. If the variation between the two-meter readings is significant for the monthly recording of data, the meters would be reset and calibrated. The measurement is taken from the MSEDCL energy meter which is located in the substation. Meter reading will be carried out in every calendar month.

The accuracy of monitoring parameter is ensured by adhering to the calibration and testing procedure as set in the power purchase agreement. The project adheres to all mandatory regulatory and statutory requirements at the state as well as national level. The energy meters installed are tri-vector meters of 0.2% accuracy class. The meter details are given in the below table.

FEEDER #	STATUS	Old S. NO.	New S.NO	Date of replacement	ACCURACY CLASS
01	Main	13769363	Q0788361	12/03/2024	0.2s
	Check	02797655	02797655	NA	0.2s
02	Main	13813570	13813570	NA	0.2s

	Check	13813547	Q0793603	12/03/2024	0.2s
06	Main	13813551	Q0788360	12/03/2024	0.2s
	Check	X1350784	X1350784	NA	0.2s
07	Main	15687854	15687854	NA	0.2s
	Check	14953662	Q0828036	12/03/2024	0.2s

The operational and management structure implemented by PP and O&M contractor is as follows:



In some cases, if a particular feeder/ substation has other WTGs not part of this PA connected through same electricity meter, apportioning is used. Even otherwise, to get WTG/ project owner wise electricity supplied to grid, apportioning is required and is carried out as below.

Apportioning of net electricity supplied is done with reference to the electricity generated from individual WTGs. The MSEDCL will issue a monthly Joint Energy Meter Readings sheet for actual power exported from the wind farm to the grid. Apportioning of net electricity supplied, as per the Joint Energy Meter Readings sheet, by each project owner is done based on the individual meter readings of each wind turbine. The apportioning will be done by electricity purchaser (representative of MSEDCL) in cases jointly with the PP. The Credit Notes with electricity buyer will be used to calculate actual net electricity supplied to the grid and on the basis of that GHG emission reductions by the project activity will be calculated.

The net electricity exported to the grid by project activity is referred from monthly credit note readings. The main billing meter at substation records total export, and total import by all the connected WTGs to the substation through a feeder. The electricity export and import by a WTG of the PP is then calculated by using the following formulae as given below. This is the billable reading against which the PP raises invoice to the state electricity board.

Formula:

$$\begin{aligned}
 &\text{Net Generation of a WTG@ for credit:} \\
 &\quad \text{kWh individual generation at WTG Controller X Total (Export kWh} \\
 &\quad \text{– Import kWh) @ EB at cumulative meter at feeder} \\
 &\quad \text{-----} \\
 &\quad \text{Total Controller Generation of WTGs connected on a feeder}
 \end{aligned}$$

Procedures for handling data uncertainty:

- a) In case main meter is faulty: In the event that the main metering system is not in the service as result of maintenance, repairs or testing, then the back metering system shall be used during the period the main metering system is not in service and the provisions above shall apply to the reading of the backup metering system.
- b) In case both the meters are faulty: When the Main Metering System and/or Backup Metering System and/or any component thereof is found to be outside the acceptable limit of accuracy or otherwise not functioning properly, it shall be repaired, recalibrated or replaced as soon as possible by the MSEDCL. The error observed during this calibration will be applied to all readings from last correct JMR / last meter calibration. MSEDCL will ensure that metering system is tested for accuracy at least once in year and report furnished along with joint meter reading.

Any meter seal(s) shall be broken only by the authorised officer of MSEDCL in the presence of representative of Power Producers/ Developers, whenever the Main Metering System or the backup metering system is to be inspected, tested, adjusted, repaired or replaced.

In case, the monitoring period starts mid-month, the reading for that month will be apportioned based on the daily electricity export data give by the O&M contractor. This will be also checked with the average daily export arrived from that month's JMR and the conservative of the two will be used for the emission reduction calculation.

Apportioning Procedure:

Procedure for apportioning of electricity:

- 1) In case the start/end dates of monitoring period do not match with the start/end dates of Joint Meter Reading Sheets / Generation reports issued by MSEDCL, following apportioning procedure will be applied for the first and the last monitoring period within a particular crediting period:

Apportioning will be carried out based on ratio of generation data recorded using LCS installed at the each WTG. The emission reductions of that particular period (between the start/end date of monitoring period and the end/start of the billing period) will be calculated based on percentage generation of that particular period at WTG using LCS data multiplied with the total units generated in the month as per the Joint Meter Reading Sheets / Generation report issued by MSEDCL. The calculation formula has been furnished below:

Generation from all project WTGs for the period y1= $EG_{WTGcontroller,i,y1}$

Generation from all project WTGs for the period y2 = $EG_{WTGcontroller,i,y2}$

Net energy supplied used for calculation of emission reduction for the monitoring period y1, i.e $EG_{facility,y1}$ =

$$\sum_{i=1}^N ((EG_{export,i,y2} - EG_{import,i,y2}) * (EG_{WTGcontroller,i,y1} / EG_{WTGcontroller,i,y2}))$$

Where

- y1 = No. of days within a billing period up to which generation is considered for emission reduction calculation
y2 = No. of days in the billing period
N = No. of feeders to which project WTGs are connected to.

- 2) In case if there are project and non-project WTGs connected to a particular feeder i, the quantity of net electricity supplied by project WTGs to the grid connected to that particular feeder will be calculated based on the formula specified below:

Total generation from all project WTG(s) connected to the feeder i in period y = EG_{WTG_controller,i,y}

Total generation from all project and non-project WTGs connected to the feeder i in period y = EG_{All_controller,i,y}

Quantity of net electricity exported by all (project and non-project) WTGs connected to feeder i to the grid in period y = EG_{export,i,y}

Quantity of net electricity imported by all (project and non-project) WTGs connected to feeder i to the grid in period y = EG_{import,i,y}

Net electricity supplied by the project WTGs connected to feeder i to the grid in period y
= EG_{facility,y} =

$$\sum_{i=1}^N ((EG_{\text{export},i,y} - EG_{\text{import},i,y}) * (EG_{\text{WTGcontroller},i,y} / EG_{\text{All_controller},i,y}))$$

Where N = No. of feeders to which project WTGs are connected to.

- 3) In cases where both scenarios mentioned above exist at the same time (i.e. both project and non- project WTGs connected to the same feeder(s) and the start/end date of the monitoring periods do not match with those of the JMR readings), firstly the apportioning as per point # 2 above will be applied for the billing period y2 to estimate the Net electricity supplied by the project WTGs connected to feeder Z to the grid in period y2. Then this value would replace (EG_{export,y2} – EG_{import,y2}) in the formula specified under point # 1 above to arrive at the Net energy export used for calculation of emission reduction for the monitoring period y1.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

Baseline Emissions (BE_y)

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y} \quad \text{----- Equation (11)}$$

$$= 167,937.97 \text{ (MWh)} \times 0.9352 \text{ (tCO}_2\text{/MWh)}$$

$$= 157,055 \text{ tCO}_2 \text{ (Rounded down to nearest integer value).}$$

5.2 Project Emissions

As per the guidance provided in the methodology ACM0002 (Version 21.0), "For most renewable power generation project activities, $PE_y = 0$."

5.3 Leakage Emissions

The methodology ACM0002 (Version 21.0) does not consider any leakage emissions.

5.4 GHG Emission Reductions and Carbon Dioxide Removals

Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y \quad \text{----- Equation (17)}$$

Where:

- ER_y = Emission reductions in year y (t CO₂e/yr)
- BE_y = Baseline emissions in year y (t CO₂/yr)
- PE_y = Project emissions in year y (t CO₂e/yr)

Net Emission Reduction from 03-April-2023 to 31-December-2024 (Monitoring Period under First Crediting Period)

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCUs (tCO ₂ e)
03-April-2023 to 31-December-2023	73,462	0	0	73,462	0	73,462
01-January-2024 to 31-December-2024	83,593	0	0	83,593	0	83,593

Total	157,055	0	0	157,055	0	157,055
-------	---------	---	---	---------	---	---------

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
03-April-2023 to 31-December-2023	62,905	73,462	16.78%	Power generation by WTGs is directly proportional to the wind speed and it is higher in high wind seasons. This monitoring period involved high wind season so the generation. The Actual Emission Reductions are higher than the estimated emission reductions. For the calendar year 2023 that is from 01-January-2023 to 31-December-2023, the estimated emission reductions are 84,501 tCO ₂ e and the actual emission reductions are 84,461 tCO ₂ e. Thus, the achieved emission reductions are well below estimated emission reductions for the entire calendar year. Since, the Actual PLF Value for all this duration is 24.22% and is well below the benchmark value of 26.1% for PLF so the equity IRR is less than the benchmark value for this period. Thus, the same is additional.
01-January-2024 to 31-December-2024	84,335	83,593	-0.89%	Power generation by WTGs is directly proportional to the wind speed and it is lower in low wind seasons. This monitoring period involved low wind season so the

				generation. The Actual Emission Reductions are lower than the estimated emission reductions. Thus, the same is additional.
	147,240	157,055	6.67%	Power generation by WTGs is directly proportional to the wind speed and it is higher in high wind seasons. This monitoring period involved high wind season so the generation. The Actual Emission Reductions are higher than the estimated emission reductions. For the combined calendar years 2023 and 2024 that is from 01-January-2023 to 31-December-2024 the estimated emission reductions are 168,606 tCO ₂ e and the actual emission reductions are 168,054 tCO ₂ e. Thus, the achieved emission reductions are well below estimated emission reductions for the entire calendar year. Since, the Actual PLF Value for all this duration is 22.12% and is well below the benchmark value of 26.1% for PLF so the equity IRR is less than the benchmark value for this period. Thus, the same is additional.
Total				

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

Use the table below to describe the commercially sensitive information included in the monitoring report to be excluded in the public version.

Section	Information	Justification
<u>NA</u>	NA	NA

APPENDIX 2: CALIBRATION DETAILS

FEEDER #	STATUS	S. NO.	Calibration Date	VALIDITY	Calibration Date	VALIDITY	Meter Change Date	VALIDITY	Updated Serial No of Energy Meters	Make & Model No. of Meters	ACCURACY CLASSES	Calibration Date	VALIDITY
			2022-23		2023-24		2024-25					2024-25	
01	Main	13769363	12-September-2022	11-September-2023	27-October-2023	26-October-2024	12-March-2024	11-March-2025	Q0788361	Secure & Apex 150	0.2s	30-July-2024	29-July-2025
	Check	02797655	12-September-2022	11-September-2023	27-October-2023	26-October-2024	Not Applicable	Not Applicable	02797655	Elster & A1800 ALPHA	0.2s	30-July-2024	29-July-2025
02	Main	13813570	12-September-2022	11-September-2023	27-October-2023	26-October-2024	Not Applicable	Not Applicable	13813570	Elster & A1800 ALPHA	0.2s	30-July-2024	29-July-2025
	Check	13813547	12-September-2022	11-September-2023	27-October-2023	26-October-2024	12-March-2024	11-March-2025	Q0793063	Secure & Apex 150	0.2s	30-July-2024	29-July-2025
06	Main	13813551	12-September-2022	11-September-2023	27-October-2023	26-October-2024	12-March-2024	11-March-2025	Q0788360	Secure & Apex 150	0.2s	30-July-2024	29-July-2025
	Check	X1350784	12-September-2022	11-September-2023	12-September-2023	11-September-2024	Not Applicable	Not Applicable	X1350784	Elster & A1800 ALPHA	0.2s	30-July-2024	29-July-2025
07	Main	15687854	12-September-2022	11-September-2023	27-October-2023	26-October-2024	Not Applicable	Not Applicable	15687854	Elster & A1800 ALPHA	0.2s	30-July-2024	29-July-2025
	Check	14953662	12-September-2022	11-September-2023	27-October-2023	26-October-2024	12-March-2024	11-March-2025	Q0828036	Secure & Apex 150	0.2s	30-July-2024	29-July-2025

Note – Since there has been a delay in calibration Error Factor has been Applied from 01-September-2023 to 31-October-2023 as per the accuracy Class that is 0.2%.