



BUNDLED WIND POWER PROJECT BY MYTRAH GROUP

Document Prepared By



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Summary:

VKU Certification Pvt. Ltd. (hereafter referred to as VKU) was commissioned by Infinite Solutions Limited (hereafter referred to as Infinite Solutions) to verify the greenhouse gas emission reductions reported for the project activity “**Bundled Wind Power Project by Mytrah Group**” (VCS ID 1728) in India. This is the seventh verification of the monitoring period 01-April-2022 to 30-June-2023 (Inclusive of both dates) under a first crediting period from 30-December-2015 to 29-December-2025 (Inclusive of both dates).

The purpose of the verification: The objective of the verification process is to obtain an impartial evaluation of the ex-post determination of the monitored reductions in greenhouse gas (GHG) emissions. This verification ensures that the monitoring methodology aligns with the plan outlined in the registered PD /3/ and that the monitoring data used to confirm reductions in human-caused emissions from sources is comprehensive, definitive, and transparently presented.

The verification scope of the project is:

- To verify that the project is implemented as described in the registered VCS PD/3/.
- To evaluate the project's adherence to relevant regulations, including the legislation of the host country (India).
- To verify the implementation and functionality of the monitoring system, ensuring the generation of Verified Carbon Units without any instances of double counting.
- To verify the accuracy, completeness, consistency, transparency, and absence of significant errors or omissions in the reported data by examining monitoring records and emissions reduction calculations.
- To ensure that the actual monitoring systems and procedures align with those described in the monitoring plan.
- To assess the GHG emission reduction data and provide a conclusion with a reasonable level of assurance regarding the absence of material misstatements.
- To verify that reported GHG emission data is sufficiently supported by evidence.

Verification was conducted using VKU's procedures in line with the requirements specified in the VCS Program Guide version 4.4/8/, VCS Standard Version 4.5/10/, VCS Validation and Verification Manual version 3.2/11/, CDM M&P, the latest version of the CDM Validation and Verification Standard 3.0/9/, and relevant decisions of the COP/MOP and the CDM EB viz., the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country (India) legislation. Furthermore, standard auditing techniques were applied throughout the verification process.

The verification process included inter alia a desk review, hybrid (onsite + remote) site assessment, resolving outstanding issues, and issuing the final verification report and certification. This

comprehensive verification is aimed to ensure that the reported emission reductions are thorough and precise, aligning with the relevant VCS requirements, thus enabling the project to obtain certification.

VKU diligently followed the rule-based approach during the verification process, ensuring strict adherence to the applicable VCS requirements. The verification encompassed a comprehensive assessment of the project activity's operations, monitoring procedures, and GHG emission reduction calculations.

During this seventh verification, it is noted that as a result, a total of Five (05) findings were identified, comprising three (03) Corrective Action Request (CARs); two (02) Clarification Requests (CLs) and zero (00) Forward Action Requests (FAR). All the raised findings were successfully resolved/closed after necessary corrections/clarifications by the client. The same has been discussed in Appendix B of this verification report.

The verification team ensured that the reported emission reductions are complete and accurate by verifying 100% of the data with the supporting documents and evidence made available to the assessment team. This was performed during desk review and also during the site visit by conducting personnel interviews and focussed group discussions along with verification of data present remote site in accordance with applicable VCS requirements to be certified therefore the verification team has detected no further uncertainties.

The GHG emission reductions were calculated based on the approved methodology ACM0002 Version 17.0: Grid-connected electricity generation from renewable sources /13/ and Tool to calculate the emission factor for an electricity system; Version 06.0.0 /20/ and the monitoring plan included in the registered VCS PD (version 03) dated 20-December-2017/3/

Verification Conclusion:

Based on VKU's thorough assessment, it is their professional judgment that the project activity "Bundled Wind Power Project by Mytrah Group" (VCS ID 1728) fully complies with the applicable requirements of VCS Standard Version 4.5/10/and other associated guidelines. The project has successfully implemented the designated baseline and monitoring methodology outlined in ACM0002: Grid-connected electricity generation from renewable sources- Version 17.0 /13/.

The monitoring system in place is effective and reliable, ensuring a reasonable level of measurement and precision level allowed by the methodology and the VCS standards without any significant discrepancies. As a result, VKU is able to objectively state that the project has achieved an emission reduction of 973,770 tCO₂e during the seventh verification for monitoring period, which spans from 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates) of first crediting period (30-December-2015 to 29-December-2025; Including both dates). This certification affirms the project's substantial contributions towards mitigating greenhouse gas emissions.

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1 INTRODUCTION

1.1 Objective

Infinite Solutions Limited (hereafter referred as Infinite Solutions) commissioned M/s VKU Certification (here after referred as VKU) to carry out seventh verification of the project “Bundled Wind Power Project by Mytrah Group” (VCS ID 1728) for the period from 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates) under first crediting period from 30-December-2015 to 29-December-2025 (Inclusive of both dates).

The agenda of the verification is to have an independent evaluation of a project activity by an accredited validation and verification body against the requirements of the VCS Program Guide Version 4.4 /8/, VCS Standard Version 4.5/10/and GHG program applied, on the basis of the registered VCS PD Version 03 dated 20-December-2017/3/.

This is the seventh verification of **first crediting period (30-December-2015 to 29-December-2025)**, (Inclusive of both dates) for a period of fifteen months or 456 days i.e., from 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates). The project activity adopts renewable crediting period¹ of 10 years period as mentioned in section 1.6 of VCS PD Version 03 dated 20-December-2017/3/.

Table No 01: Number and time period of Verification under first crediting period:

Periodic Verification No.	Monitoring Period (Inclusive of both dates)	Number of years
1 st Joint Validation and Verification in VCS	<u>30-December-2015 to 24-November-2017</u>	01 Year 10 Months 26 Days
2 nd in VCS	<u>25-Novemeber-2017 to 31-July-2019</u>	01 Year 08 Months 07 Days
3 th in VCS	<u>01-August-2019 to 31-March-2020</u>	00 Year 08 Months 00 Days
4 th in VCS	<u>01-April-2020 to 31-May-2021</u>	01 Year 02 Months 00 Days
5 th in VCS	<u>01-June-2021 to 28-February-2022</u>	00 Year 08 Months 29 Days

¹ The project activity adopts renewable crediting period of 10 years period which can be renewed for maximum 2 times.

6 th in VCS	<u>01-March-2022 to 31-March-2022</u>	00 Year 00 Months 31 Days
7 th (Current Monitoring Period) in VCS	01-April-2022 to 30-June-2023	1 Year 3 Months 00 Days
Total	30-December-2015 to 30-June-2023	07 Years 06 Months 1 Day

The verification will be performed by review of evidences & documents submitted to the VKU Assessment/Verification Team by PP, for the registered project activity to establish that:

- The project activity has been implemented and operated in strict adherence to the registered VCS Joint PD & MR Version 03 dated 20-December-2017 /3/ & MR /1/ and that all physical features (technology employed, technical specifications of the WTGs, project equipment's, metering and monitoring protocols) of the project are in place.
- The monitoring report/1/ and accompanying documentation have been meticulously compiled and are comprehensive in nature.
- The data has been methodically recorded and stored in accordance with the prescribed monitoring methodology outlined in "ACM0002: Grid-connected electricity generation from renewable sources - version 17.0 /13/ and approved monitoring plan.

The verification process aimed to confirm the seamless implementation and full functionality of the monitoring system, ensuring the accurate generation of Verified Carbon Units (VCUs) without any instances of double counting. Additionally, meticulous scrutiny of the monitoring records and emissions reduction calculations has been carried out to guarantee the completeness, consistency, transparency and absence of any material errors or omissions in the reported data. This aims to establish the reliability and integrity of the data.

1.2 Scope and Criteria

The scope of this verification was the independent, objective review and ex-post determination of the monitored reductions in GHG emissions from the "Bundled Wind Power Project by Mytrah Group". The verification of this project was based on the validated & registered VCS Joint PD & MR Version 03 dated 20-December-2017/3/ & monitoring report/1/ along with supporting documents submitted by the project proponent to the VKU verification team. The documents thus submitted to the VKU Assessment/Verification Team were reviewed against the following guidance & protocols:

- VCS Programme Guide (Version 4.4) /8/
- VCS Standard (Version 4.5) /9/
- VCS Program Definitions (Version 4.4) /6/
- VCS Registration & Issuance Process (Version 4.4) /7/
- VCS validation and verification manual version 3.2/11/

- vi) CDM Approved methodology ACM0002 Version 17.0 /13/
- vii) Tool to calculate the emission factor for an electricity system (Version 06.0)/20/
- viii) Tool for the demonstration and assessment of additionality, Version 07.0.0/21/
- ix) CDM Validation and Verification Standard version 3.0/12/

The steps involved are as follows:

- To assess the project's compliance with other relevant rules including the host country (India) legislation. To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions without any double counting.
- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement is sufficiently supported by evidence.
- The verification process ensures that the reported emission reductions are comprehensive and accurate in order to obtain certification.

The verification method and criteria encompassed several phases, including

- (i) Desk review of VCS Joint Project Description & Monitoring Report, registered under (Version 03) dated 20-December-2017/3/ and other supporting documents listed in **Table-04;**
- (ii) Hybrid (Onsite + Remote) interviews & Focussed Group Discussions Stakeholders & PP representatives involved in project's implementation.
- (iii) VKU's Completeness/Quality Check, and
- (iv) The Final issuance of the verification report.

Outstanding issues were resolved, leading to the issuance of the final verification report and the relevant VCS Verification Deed of Representation.

It is important to note that the verification process does not involve providing consultancy to the project proponents. However, requests for clarifications and corrective actions may have contributed to improvements in the monitoring processes.

1.3 Level of Assurance

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent VKU's procedure with a Reasonable level of assurance, as per section 04 clause 4.1.2, 4.1.10 and clause 4.1.24 (*serial no. 6 of clause 4.1.24*) of the VCS Standard Version 4.5/10/.

The verification report is based on the Monitoring report/1/, registered VCS PD Version 03 dated 20-December-2017/3/ & supporting documents that were made available to the VKU's assessment team references in table-04 and information collected through performing interviews with PP Representatives/Local Stakeholders during hybrid visit (Onsite + remote site visit) /37/.

The technical review was performed by a technical reviewer(s) qualified in accordance with VKU's qualification procedure. The assessment team and the technical reviewers consist of the following personnel.

Table No 02: The Assessment Team comprises of:

Role/Qualification of Assessment Team	Last Name	Middle Name	First Name
VCS Team Leader, Technical Expert TA 1.2, (Local Expert – Country: India)	K.	Kumar	Sanjay
Validator/Verifier - Trainee	Dhankar	NA	Anil
Project Trainee	Modi	NA	Priyanshee

Table No 03: The Technical Reviewer Team comprises of:

Role/Qualification of Technical Team	Last Name	Middle Name	First Name
Technical Reviewer & Technical Expert TA 1.2	Ahirwar	Kumar	Vivek

1.4 Summary Description of the Project

Project Overview:

The bundled project activity involves electricity generation by renewable source (Wind energy) and supplying the generated electricity to the respective state utility. Which fall under the unified Indian Grid. The spatial extent of the project boundary is the regional grid system (part of Unified

Indian Grid) located in four different states of India i.e., Rajasthan, Madhya Pradesh, Andhra Pradesh and Telangana.

Project Nature & Energy Source:

This is a greenfield project activity i.e., there was no renewable energy-based electricity generation facility at site of this project and equivalent amount of electricity would have been supplied by fossil-fuel dominated grid – which is pre-project scenario as well as baseline scenario for this project activity. The project activity ensures the reduction of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and also plays beneficial role in the mitigation of climate change.

The project activity is grid-connected bundled wind energy generation project. The total capacity of the bundled project activity is 493.9 MW. A total number of eight sites implemented in four different states of country India by five SPVs under this bundled project activity. The project sites along with the name of SPVs is mentioned in the table 04 below. The project is promoted by Mytrah Energy (India) Pvt. Limited as single representative of all the five SPVs involved in this bundled project activity as namely Mytrah Vayu (Indravati) Pvt. Ltd., Mytrah Vayu (Som) Pvt. Ltd., Mytrah Vayu (Godavari)Pvt. Ltd., Mytrah Vayu (Godavari)Pvt. Ltd. and Mytrah Vayu (Tungabhadra) Pvt. Ltd. The 1st machine (WTG) was commissioned on 30-December-2015 and is functioning successfully since then and dates are verified against registered VCS Joint Project Description and Monitoring Report Version 03 dated 20-December-2017/3/ and commissioning certificates/31/.

Table 04: Details of project installation

S. No.	Name of the SPVs	Project Site	Number of WTGs	Rating of WTGs (MW)	Location (State)	Project Capacity (MW)
1.	Mytrah Vayu (Indravati) Pvt. Ltd.	Bhesada	4	4*2.1	Rajasthan	8.4
2.	Mytrah Vayu (Indravati) Pvt. Ltd.	Pottipadu	50	50*2.1	Andhra Pradesh	105
3.	Mytrah Vayu (Som) Pvt. Ltd.	Nidhi	53	53*1.7	Rajasthan	90
4.	Mytrah Vayu (Som) Pvt. Ltd.	Nipaniya	15	15*2	Madhya Pradesh	30
5.	Mytrah Vayu (Godavari) Pvt. Ltd.	Nazeerabad	48	48*2.1	Telangana	100.8
6.	Mytrah Vayu (Krishna) Pvt. Ltd.	Burgula-II	6	4*2.3 2*0.8	Andhra Pradesh	10.8
7.	Mytrah Vayu (Tungabhadra) Pvt. Ltd.	Aspari-I	55	47*1.7 8*2.3	Andhra Pradesh	98.3
8.	Mytrah Vayu (Tungabhadra) Pvt. Ltd.	Aspari-II	22	22*2.3	Andhra Pradesh	50.6

	Total		253			493.9 MW
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Start date of this project activity is earliest date of commissioning of the 1st machine (WTG) of project activity i.e., on 30-December-2015 and the project was fully commissioned on date of commissioning of last machine (253rd) i.e., 30-March-2017.

This bundled activity involves installation and operations of total 253 numbers of Wind turbine generators (WTGs) of different rated capacities: The 102 WTGs are of S-97 type with rated capacity of 2100 kW each, supplied by Suzlon Energy Limited's, 24 WTGs are of GE 2.3 type with rated capacity of 2300 kW each, supplied by GE India Industrial Pvt. Ltd, 110 WTGs are of GE 1.7 type with rated capacity of 1700 kW each supplied by GE India Industrial Pvt. Ltd, 4 WTGs are of WW-53 type with rated capacity of 800 kW each supplied by Wind World India Limited's and 15 WTGs are of DF 100 type with rated capacity of 2000 kW each, supplied by Inox Wind Ltd. The entire project is in continuous operation since its date of commissioning of the respective machines with some scheduled and unscheduled breakdowns for this monitoring period defined in section 4.1 of this report, as witnessed by the assessment team during hybrid (onsite + remote) site visit of plant sites, & which was verified against the registered VCS Joint PD & MR/03/ previous Verification report /05/ and commissioning certificates/31/ which were submitted by the PP to the assessment team as a response to the feedback raised by the assessment team during verification assessment as per section 3.26 and clause 3.26.3 of the VCS Standard version 4.5/07/ it is an obligation for the project proponent to make available to the validation/verification body the required supporting documents.

Hence, VKU in adherence to the section 3.1, clause 3.1.8 of the VCS Standard version 4.5/07/ conforms that the capacity of the project was verified from the commissioning certificates/31/ and later verified during hybrid (Onsite + remote) site while cross checking the certificates/name plates of the WTGs installed at site & also by interviewing the site personnels regarding the project commissioning and supply of generated electricity to grid and hence declare that the project capacity is in line with the defined methodology ACM0002 version 17.0.

By implementing the project activity, the following GHG sources of emissions are reduced/avoided:

Baseline/Source	Generation of electricity by fossil fuel- dominated grid connected power plants
Project Equipment/Sink	The avoidance of GHG emission into the atmosphere is due to generation of electricity by renewable means i.e., Wind Turbine Generators of this project and exporting to Unified Indian Grid which is in line with 3.1.1 of ISO14064-2 /43/

	Renewable Energy Projects do not create sinks, they avoid emissions through their technology i.e., Through installed Wind Power Project.
Baseline GHG emission source reduced/avoided	CO ₂ emissions from fossil fuels and other fuel fired grid connected plants/projects.

As per MR/1/, the electricity generated from the project is supplied to the regional grid of respective state grid system which is under the purview of the Indian Grid of India, which is confirmed from registered VCS joint Project Description and Monitoring Report version 03 dated 20-December-2017/3/.

This information was verified during the hybrid (onsite + remote) site assessment /38/and found to be in line with the details provided in the registered VCS Joint Project Description and Monitoring Report version 03 dated 20-December-2017/3/. The net electricity generated by the project activity that was evacuated to the grid during the current monitoring period (7th monitoring period) from 01-April-2022 to 30-June-2023 (inclusive of both the dates) is **1,008,781.84 MWh**. The total emission reductions achieved in this monitoring period i.e., from 01-April-2022 to 30-June-2023 (first and last days included) is **973,770 tCO₂e**.

2 VERIFICATION PROCESS

The registered VCS project “**Bundled Wind Power Project by Mytrah Group**” (VCS ID 1728) is undergoing seventh periodic verification of first crediting period under VCS with VKU Certification Pvt Ltd from 01-April-2022 to 30-June-2023, both dates included. The first crediting period is from 30-December-2015 to 29-December-2025 (both dates included).

The approach adopted to ensure the quality of emission reductions is described in the following sections.

2.1 Method and Criteria

Verification was conducted using VKU’s procedures in line with the requirements specified in the VCS Requirements, i.e., VCS Program Guide Version 4.4 /8/, VCS standard document version 4.5 /7/. The project activity is a bundled project activity and does not fall under category of “grouped projects”, hence no acceptance sampling methods was employed by the assessment team and during the hybrid (Onsite + remote) site visit at all the plant sites /38/ verification team reviewed 100% data for all the Wind Turbine Generators involved in this project at site for the verification of GHG emission reductions or removals generated by the project.

However, in order to conduct onsite visit in a such a way that the efforts and time is optimised, the verification team adopted simple random sampling as the sampling plan. This is in line with para 7 section 5.1 of the Guideline: Sampling and surveys for CDM project activities and programmes of activities (EB67Annex 06)/ which states that

5.1. Simple random sampling

7. *A simple random sample is a subset of a population (e.g. villages, individuals, buildings, pieces of equipment) chosen randomly, such that each element (or unit) of the population has the same probability of being selected. The sample-based estimate (mean or proportion) is an unbiased estimate of the population parameter.*

Since this project has pieces of equipment (WTG, Substation of the wind farm) dispersed across several states and districts within the state, the verification team found the applicability of the above para suitable to the present project activity.

The WTGs are homogenous as all of them are using same technology, the probability of choosing the WTGs are same if picked at random, hence are unbiased estimate.

Renewable energy projects like wind and solar power plants have low uncertainties compared with cookstove projects. This is due to the fact that the RE projects use high technology with precision monitoring and managed by technicians and engineers, unlike ICS projects.

Hence verification team based on the expertise and sectoral scope knowledge decided to apply confidence precision level of 90/10. This professional judgement applied by the verification team is also in line with para 4 (b), (c) of the CDM guidelines on sampling.

Accordingly, the verification team then applied the equation (1) as per para 12 of the guidelines as follows:

The equation to give us the required sample size is:

$$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)} \quad \text{Equation (1)}$$

Where

n = sample size

N = Total number of WTGs in the bundle

p = our expected proportion

1.645 = Z score value for 90/10.

0.1 = Represents the 10% relative precision (0.1x 0.5 = 0.05 ie., 5% on either side of the p of the normal distribution curve)

Here the unknown parameter is p. In the absence of a specific guidance on choosing the value of p for renewable energy projects viz., wind projects, the verification team based on the expertise within the organisation and sectoral scope expertise as well as sampling knowledge, applied the devised rules to choose the value of p,

However the rules are based on the following priors/operational inputs of the WTGs at site in general.

- For operational efficiency of WTGs, PP usually expects near 100% of the times WTGs to work.
- However due to grid availability situations at site and scheduled and unscheduled breakdowns, PP would expect at least 90% of the times WTGs in the project activity to be operational for commercial viability.
- So certain WTGs which operate less than this expectation are usually outliers or exceptions

Based on these two inputs or priors of the operational efficiency of WTGs, the verification team then applied these two rules to determine the value p

- Obtain the breakdown hours of all the WTGs in the project activity bundle for at least one year if not for the entire monitoring period in question.
- Then find out the net operational hours as :

(Total operational hours in the duration/MP – breakdown hours in the duration) x 100 /
Total operational hours in the duration

- Then select those WTGs whose percentage operational hours is > 90%. For example, If there are 100 WTGs in a bundle, and 5 WTGs have operational hours % of less than 90%, then remove the same from the list.
- Then the proportion of success is then determined as: $(100-5) / 100 = 0.95$.

For the present project activity, VVB chose to conduct onsite visit of the WTGs located in Tanduru, Nazeerabad, Telangana and decided on performing the remote site visit for the rest of the sites in Andhra Pradesh.

For Tanduru Site, Nazeerabad district in Telangana site the breakdown details are given as below:

WTG no	Total WTG Down Hrs.	% age of Breakdown
NRB01	350.00	3.20%
NRB02	299.33	2.74%
NRB03	275.90	2.52%
NRB04	273.52	2.50%
NRB05	243.73	2.23%
NRB06	241.38	2.21%
NRB07	240.97	2.20%
NRB11	222.77	2.04%
NRB14	222.00	2.03%
NRB15	218.20	1.99%
NRB16	206.30	1.89%
NRB17	205.12	1.87%
NRB18	204.72	1.87%
NRB19	197.58	1.81%
NRB20	192.42	1.76%
NRB22	185.90	1.70%
NRB23	185.60	1.70%
NRB24	181.98	1.66%
NRB26	179.68	1.64%
NRB27	177.62	1.62%
NRB28	175.97	1.61%
NRB29	167.78	1.53%
NRB30	165.12	1.51%
NRB31	163.00	1.49%
NRB34	152.83	1.40%

NRB35	150.28	1.37%
NRB36	148.00	1.35%
NRB39	146.73	1.34%
NRB40	146.03	1.33%
NRB41	143.77	1.31%
NRB43	143.40	1.31%
NRB44	140.28	1.28%
NRB48	138.58	1.27%
NRB49	137.00	1.25%
NRB54	132.92	1.21%
NRB56	121.47	1.11%
NRB57	121.03	1.11%
NRB58	119.00	1.09%
NRB60	116.23	1.06%
NRB62	114.53	1.05%
NRB63	105.27	0.96%
NRB64	103.97	0.95%
NRB66	98.83	0.90%
NRB67	98.53	0.90%
NRB68	98.22	0.90%
NRB69	91.07	0.83%
NRB71	87.25	0.80%
NRB72	79.12	0.72%
TOTAL	8110.93	1.54% (average)

As it can be seen that none of the WTGs in the project activity were operating under 10% and the average breakdown hours is 1.54% for the monitoring period.

So the proportion of WTGs which are operating ie., $p = 1 - 0.0154 = 0.9846$ for the project activity. Hence recalling the equation (1) from the guidelines above, and putting the values from the above discussion, the number of samples n then reduces to 4 nos.

Using random number generator function in excel, the VVB chose the highlighted WTGs in the table above for onsite visit on 18/09/2023. The objectives of the site visit and outcomes of the site visit is mentioned in the ensuing sections.

- The GHG emission reductions are based on the approved Baseline and monitoring methodology ACM0002 “Grid-connected electricity generation from renewable sources” ACM0002 Version 17.0 /13/
- Scope: 01 - Energy Industries (renewable /non-renewable sources)
- Project type: Type I - Renewable energy projects

Tools used for GHG Calculations are as follows as per registered Joint PD & MR /3/:

- Tool to calculate the emission factor for an electricity system, Version 06.0.0 /20/
- Tool for the demonstration and assessment of additionality- Version 07.0.0/21/

Keeping in line with ISO (14064-3; 2019, clause 06 & 14065-2020, clause 09) Standard guidelines assessment team has framed down the process for completing the verification and has followed the same throughout the execution of audit of the said project VCS 1728.

The verification consisted of the following phases.

- 1. Planning and Intimation to VERRA about site visit:** The assessment team starts with a desk review and as per section 4.1.13 of VCS standard version 4.5/09/, no need for site visit is identified for the project activity. Since this is the first time VKU has undertaken the verification process of this project activity and a hybrid (onsite + remote) site visit is planned. Assessment team also shared a NOVS Notice of Validation/Verification Services (NOVS) Form /44/ and submit it to auditing@verra.org, 15 business days before the initial meeting with the project proponent. The form for this project was shared on 29-August-2023 and confirmation for conducting hybrid site visit (Onsite + Remote) was received from VERRA on 30-August-2023. Decision to take site visit was based on independent risk assessment, as defined in section 4.1.13 of VCS standard version 4.5/09/ and hybrid site visit dates finalised were 18-September-2023 (Onsite), 25-September-2023 (Remote), 27-September-2023 (Remote) and 28-September-2023 (Remote). More details are provided in section 2.4 of this report.
- 2. Strategic Analysis:** Assessment team performed strategic analysis to understand the activities and complexity of the project, and to determine the nature and extent of the verification activities. The results of the strategic analysis shall be used in the risk assessment,
- 3. Risk Assessment;** Assessment team performed risk assessment of the GHG statement to identify the risk of a material misstatement or nonconformity with the criteria.
- 4. Evidence Gathering Activities;** Using a risk-based approach assessment team prepared evidence gathering activities, to collect sufficient and appropriate evidence upon which to base the conclusion & determine whether the GHG statement conforms to the criteria, taking into account the principles of the standards or GHG programme that apply to the GHG statement.
- 5. Audit and Sampling Plan:** An audit plan is prepared, including all sub-elements required for an integrated verification process aligned with the contract, scope, objectives, level of assurance and materiality, the same was documented in VKU.F24W. Audit and Sampling Plan_VKU.VER.129.23_VCS_1728.
- 6. Evidence Gathering Plan;** The evidence-gathering plan is prepared based on the results of the VKU's Assessment Team's risk assessment. It was designed to lower the verification risk

to an acceptable level. The evidence-gathering plan thus specify the type and extent of evidence-gathering activities.

7. **Client Confirmation and Approval:** The site visit audit plan is sent to the client for review and confirmation/approval via email.
8. **Document Review:** Relevant documents, such as the verification report, monitoring plan, methodology, VCS PD and QA/QC procedures are thoroughly reviewed.
9. **Hybrid (Onsite + remote) site Assessment:** This includes interviews and evaluation of the actual project scenario.
10. **Resolution of Discrepancies:** Any non-conformities identified during the assessment are addressed and resolved.
11. **Independent Review:** A technical reviewer provides an independent assessment.
12. **Final Verification:** After completeness checks, the verification report and certification are issued.

The following sections outline each step in more detail.

2.2 Document Review

During the document review, VKU has applied standard auditing techniques to assess the quality of information provided. The verification was performed primarily based on the review of VCS monitoring report for “Bundled Wind Power Project by Mytrah Group” version 1.0 of 03-August-2023, and **final Version 4.0 of 02-April-2024/1/** and the emission reduction calculations spreadsheet version 1.0 of 03-August-2023 and final **Version 2.0 of 30-October-2023/2/** were assessed as part of the verification. In addition, the registered VCS Joint Project Description and Monitoring Report version 03 dated 20-December-2017/3/in particular the baseline estimations and the monitoring plan for the project was reviewed. The following **table-04** lists the documentation that was reviewed during the verification.

As per section 3.26 and clause 3.26.3 of the VCS Standard Version 4.5/10/ it is an obligation for the project proponent to make available to the assessment team the required supporting documents and data needed to support statements and data as documented in the monitoring report. Thus, the assessment team reviewed the following documents during verification:

Table No: 04; Lists of the documentation that were reviewed during the current verification:

Current Verification Reference Documents	
/1/	VCS monitoring report for “Bundled Wind Power Project by Mytrah Group” in India, - Version 1.0 of 03-August-2023 - Version 2.0 of 30-October-2023

	- Version 3.0 of 05-December-2023 - Version 4.0 of 02-April-2024
/2/	Emission Reduction Calculation Spreadsheet for “Bundled Wind Power Project by Mytrah Group” in India, - Version 1.0 of 03-August-2023 - Version 2.0 of 30-October-2023
Background Documents/Weblinks	
/3/	<u>Registered VCS Joint PD-MR for the project ‘Bundled Wind Power Project by Mytrah Group’ version 03 dated 20-December-2017</u>
/4/	<u>LGAI Technological Center, S.A (Applus+ Certification): Validation Report: Bundled Wind Power Project by Mytrah Group, Version 01, dated 10-February-2016</u>
/5/	<u>LGAI Technological Center, S.A (Applus+ Certification): Verification Report: Bundled Wind Power Project by Mytrah Group, Version 02, dated 06-January-2023</u>
/6/	<u>VCS program Definitions (Version 4.4) of 29-August-2023</u>
/7/	<u>VCS Registration & Issuance Process (Version 4.4) of 31-August-2023</u>
/8/	<u>VCS: VCS Program Guide, version 4.4 of 29-August-2023</u>
/9/	<u>VCS Standard, version 4.4 dated 17-January-2023</u>
/10/	<u>VCS: VCS Standard, version 4.5 of 11-December-2023 (Latest)</u>
/11/	<u>Validation and verification manual version 3.2 dated 19-October-2016</u>
/12/	<u>CDM Validation and Verification Standard version 3.0 dated 09-September-2021</u>
/13/	<u>CDM Executive Board: Baseline and Monitoring Methodology “ACM0002: Grid-connected electricity generation from renewable sources- ACM0002 Version 17.0</u>
/14/	<u>VERRA: Project search</u>
/15/	<u>UNFCCC: Project search</u>
/16/	<u>Renewable Energy Certificate Registry of INDIA – Registered RE Generator List (recregistryindia.nic.in)</u>
/17/	<u>I-REC Standard – The International REC Standard Foundation (irecstandard.org)</u>
/18/	<u>Gold Standard Foundation</u>
/19/	<u>EIA NOTIFICATION dated 14-September-2006</u>
/20/	<u>Tool to calculate the emission factor for an electricity system, Version 06.0</u>
/21/	<u>Tool for the demonstration and assessment of additionality, Version 07.0.0</u>
/22/	<u>CO₂ Baseline Database for the Indian Power Sector</u>

/23/	<u>Ministry of Environment, Forest and Climate Change (MoEF&CC) Notification dated 14-September-2006 (S.O. 1533I)</u>
/24/	Central Electricity Authority (Installation and Operation of Meters) Regulations Notified on 17-March-2006 <u>No. 502/70/CEA/DP&D</u> Amendments Notified on 26-June-2010 <u>No. 502/6/2009/DP&D/D-I</u> https://cea.nic.in/wp-content/uploads/2020/02/meter_reg.pdf <u>Metering Regulations Archiv-s - Central Electricity Authority (cea.nic.in)</u>
Reference/Supporting documents submitted by PP to VVB	
/25/	Wind Energy Purchase Agreement
/26/	Certificates of Calibration for all the energy meters for the project activity active during current monitoring period (01-April-2022 to 30-June-2023, inclusive of both start and end dates)
/27/	JMRs/Credit Notes/B-Forms Issued by respective State Utility/Discom to PP
/28/	Invoices issued by PP to DISCOM Bhesada (By Mytrah Vayu (Indravati) Private Ltd. to Jaipur DISCOM) Nidhi (By Mytrah Vayu (Som) Private Ltd. and Ajmer DISCOM) Nipaniya (By Mytrah Vayu (Som) Private Ltd. and Nipaniya Substation) Pottipodu (By Mytrah Vayu (Indravati) Private Ltd. and APTRANSCO Grid) Burgula-II (By Mytrah Vayu (Krishna) Private Ltd. and APTRANSCO Grid) Aspari-I (By Mytrah Vayu (Tungabhadra) Private Ltd. and APTRANSCO Grid) Aspari-II (By Mytrah Vayu (Tungabhadra) Private Ltd. and APTRANSCO Grid) Nazeerabad (By Mytrah Vayu (Godavari) Private Ltd. and TSTRANSCO Grid)
/29/	LCS Meter Readings
/30/	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the current verification period (01-April-2022 to 30-June-2023, inclusive of both start and end dates)
/31/	Commissioning Certificates of all 253 Machines (Wind Turbine Generators) of the bundled project activity.
/32/	Technical Specifications of Wind Turbine Generators (WTGs).
/33/	Grievance Register/Grievance-Resolution Letters present on project implemented site; more information related to the same has been included in <u>Section 4.2.2</u> of this report
/34/	Tripping/Breakdown Details
/35/	Monthly Generation Reports

VVB Documents used during Current Verification	
/36/	GPS Google earth software used for Location; <u>Google Earth Pro</u>
/37/	GPS Map Camera: <u>Geotag Photos & Added GPS Location</u>
/38/	On-site Visit Photographs/Evidences 18-September-2023 (Onsite) for Telangana Site 25-September-2023 (Remote) for Andhra Pradesh Sites 27-September-2023 (Remote) for Madhya Pradesh sites 28-September-2023 (Remote) for Rajasthan sites
/39/	Personnel Interviews and Focussed Group Discussions during hybrid (onsite + remote) visit detailed in <u>section 2.3</u> of this report.
/40/	VKU-Attendance Sheet of Audit_ VKU.VER.129.23_VCS 1728
/41/	VKU-Audit and Sampling Plan_ VKU.VER.129.23_VCS 1728
/42/	<u>ISO 14064-3:2019: Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements</u>
/43/	<u>ISO 14065:2020: General principles and requirements for bodies validating and verifying environmental information</u>
/44/	<u>ISO/IEC 17029:2019: Conformity assessment — General principles and requirements for validation and verification bodies</u>
/45/	<u>ISO 14064-2:2019: Greenhouse gases; Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements</u>
/46/	Notice of Validation/Verification Services Form- VKU.VER.129.23_VCS 1728

2.3 Interviews

The on-site inspection/38/ was performed by the assessment team for the Nazeerabad project site in State Telangana and remote site assessment was performed for Bhesada & Nidhi project sites in state Rajasthan, Pottipodu, Burgula-II, Aspari-I & Aspari-II project sites at Andhra Pradesh and Nipaniya project site in state Madhya Pradesh. The representatives of the PP were interviewed remotely by assessment team on 18-September-2023, 25-September-2023, 27-September-2023 and 28-September-2023 i.e., Tables 05 & 06 provide a comprehensive overview of the interview process/37/ conducted during the verification. These tables outline the personnel involved in the interviews, along with their respective roles. The interviews specifically targeted individuals responsible for monitoring the project activity, data collection and management, as well as those involved in the quality assurance and quality control (QA/QC) procedures. The tables serve to identify the individuals interviewed and provide relevant information regarding their roles within the project. The key personnel interviewed during the opening meeting and closing meeting session of the hybrid (onsite + remote) audit, and the main topics of the interviews are summarized in the table below:

Table no: 05: Details of Personnel Interview

S.no	Name	Gender	Designation	Topic of Discussion
1.	Anbalagam	Male	Deputy Manager JSW Energy Ltd.	Implementation of the project, Baseline emission, Emission reduction calculation, technical description of the project and monitoring along with QA/QC
2.	M.Vijaya Simha	Male	Asst. Manager JSW Energy Ltd.	
3.	Siddarma	Male	Engineer SGSL	
4.	M. Nagasayana	Male	Engineer SGSL	
5.	Hussain	Male	SRI	
6.	A.Shekar	Male	SRI	
7.	P. Venkata Mallikarjun	Male	JSW-Assistant Manager (Burgula)	SCADA, Breakdown details and maintenance of generation records Data recording, management and archiving procedure
8.	C. Usmanali Saheb	Male	JSW-Assistant Manager (Pottipodu & Aspari)	

9.	Babasaheb Sayambar	Male	JSW Deputy Manager (Nipaniya)
10	Neema Ram Panwar	Male	JSW-Assistant General Manager (Rajasthan)
11	Mukut B. Sharma	Male	JSW Deputy Manager (Bhesada)
12	Jitendra Prajapat	Male	JSW Deputy Manager (Nidhi)
13	Ramesh Khure	Male	Assistant Manger (JSW)
14	Richa Thakur	Female	Assistant Vice President (Consultant Infinite Solutions)
15	Nitya Sharma	Female	Senior Analyst (Consultant Infinite Solutions)

The topics covered during interview ranges from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system and data collection, recording, emergency procedures and archiving procedures. The assessment was based on the feedback received during hybrid (onsite + remote) visit and interview/37/ coupled with the documentation.

During hybrid (onsite + remote) visit at project sites 36/, Assessment team also interviewed the local stakeholders /37/ involved in the projects to verify the implementation of grievance mechanism and process of grievance resolution mentioned in the Monitoring report/1/ (refer section 1.11, & 2.2 of MR/1/) by the PP. The assessment team confirmed the sustainable development claims and assessed the socio-economic impact of the project on the local community. Assessment team also checked the records and observed that the PP provided opportunities for the locals to express their opinions and grievances, with efforts to resolve any issues through consultation with stakeholders. Assessment team thus verified all the above

statements via focussed group discussions and personal interview/37/ with stakeholders as tabulated below:

Table no: 06: Details of Personnel Interview/Focussed Group Discussion with Stakeholders

S.no	Name	Gender	Designation	Mode of Interview	Category	Topic of Discussion
1.	S.Manikaran	Male	Security Active	Onsite	Local Stakeholders	Execution of Project activity and its impact on the economic, social and environmental parameters on the local people of the area & around the situated project activity
2.	S. Sathalok	Male	Security Active	Onsite		
3.	Hazivalli	Male	Security Guard (Burgula)	Remote		
4.	T. Yashwanth Kumar	Male	Security Guard (Pottipodu & Aspari)	Remote		The ongoing communication procedure and the address of their grievance mechanism followed by the project proponent
5.	Shahjad Mansuri	Male	Office Boy (Nipaniya)	Remote		
6.	Balaram.R	Male	Security Guard (Nipaniya)	Remote		Scope and generation of employment in the locality due to the implementation of said project activity in the area. The ongoing trainings provided to the locals for self-employment.
7.	Devendra Kumar	Male	Security Guard (Bhesada)	Remote		
8.	Chatra Ram	Male	Security Guard (Nidhi)	Remote		

The VKU Assessment Team meticulously documented the information obtained during the interview with site personnel /37/. This data was recorded using VKU's dedicated form, specifically VKU.F46W, known as the Attendance Sheet for Audit/38/ & there were no negative comments received during the stakeholder consultation interview conducted on site and more detail is enlisted in the section 4.2.2 below.

2.4 Site Visits

Site Location visited:

S.No.	Site	District	State	Country	Mode of Site Visit	Date
1.	Bhesada	Jaisalmer	Rajasthan	India	Remote	28-09-2023
2.	Nidhi	Jaisalmer	Rajasthan	India	Remote	28-09-2023
3.	Nipaniya	Mandsaur	Madhya Pradesh	India	Remote	27-09-2023
4.	Pottipodu	Anantpur	Andhra Pradesh	India	Remote	25-09-2023
5.	Burgula-II	Kurnool	Andhra Pradesh	India	Remote	25-09-2023
6.	Aspari-I	Kurnool	Andhra Pradesh	India	Remote	25-09-2023
7.	Aspari-II	Kurnool	Andhra Pradesh	India	Remote	25-09-2023
8.	Nazeerabad	Rangareddy	Telangana	India	Onsite	18-09-2023

Location: Project activity has Eight (8) sites, located in four (4) Different states of country India as mentioned below:

- 1) A Remote site inspection was undertaken by the verification team to Bhesada project site is located in Villages - Naya luna kalan, Pratap pura and Khuda of District – Jaisalmer, State – Rajasthan, Country – India on 28-September-2023.
- 2) A Remote site inspection was undertaken by the verification team to Nidhi project site is located in Village – Habur, District – Jaisalmer, State – Rajasthan, Country – India on 28-September-2023.
- 3) A Remote site inspection was undertaken by the verification team to Nipaniya project site is located in Villages – Jamuniya, Dhamniya Diwan, Nariya Bujurg, Manpura, Aakli Shivdas, Sagoriya, Bardiya Amra, Guradiyamata and Barkheda Uda of District – Mandsaur, State – Madhya Pradesh, Country – India on 27-September-2023.
- 4) A Remote site inspection was undertaken by the verification team to Pottipadu project site is located in Villages - Pottipadu, Gulyapalyam, Vajrakarur, Gadethothur, Ganjikunta, Tatrakallu, Kamalapadu and Konakondla of District – Anantapur, State – Andhra Pradesh, Country – India on 25-September-2023.
- 5) A Remote site inspection was undertaken by the verification team to Burgula-II project site is located in Village – Burgula of District – Kurnool, State – Andhra Pradesh, Country – India on 25-September-2023.

- 6) A Remote site inspection was undertaken by the verification team to Aspari-I project site is located in Village – Aspari of District – Kurnool, State – Andhra Pradesh, Country – India on 25-September-2023.
- 7) A Remote site inspection was undertaken by the verification team to Aspari-II project site is located in Village – Aspari of District – Kurnool, State – Andhra Pradesh, Country – India on 25-September-2023.
- 8) An Onsite site visit was undertaken by the verification team to Nazeerabad project site is located in Village – Nazeerabad of District – Rangareddy, State – Telangana, Country – India on 17-September-2023.

Further the location along with longitude and latitude is mentioned in section 4.1 of this report.

A Hybrid (Onsite + Remote) site visit was undertaken by the verification team to the project location identified in the MR/1/to carry out the following;

- An assessment of the implementation and operation of the registered project activity as per the registered VCS Joint PD & MR Version 03 dated 20-December-2017/3/ and VCS MR/1/.
- A review of information flows used to generate, aggregating and reporting the monitoring parameters.
- Interviews/37/ with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the registered VCS Joint Project Description and Monitoring Report (PD + MR) version 03 dated 20-December-2017/3/.
- A cross check between information provided in the monitoring report and data from other sources such as plant generation log books, inventories, purchase records or similar data sources.
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the VCS Joint PD & MR Version 03 dated 20-December-2017/3/ the applied methodology including applicable tool(s), and where applicable, the applied standardized baseline.
- A review of calculations and assumptions made in determining the GHG data and emission reductions.
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

The aim of this verification phase is to address any remaining issues that require clarification to enable VKU to reach a favourable conclusion regarding the project description. In the interest of transparency, a customized verification protocol has been developed specifically for this project. This protocol transparently outlines the requirements, methods of verification, and the outcomes of verifying the specified criteria. The verification protocol is organized into three tables, each containing various columns, which are described as follows.

A corrective action request (CAR) is raised if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions.
- Issues identified in a FAR during previous assessment i.e., in validation or verification report to be cross verified during verification have not been resolved by the project participants.

A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

A forward action request is also raised in cases where any required deviation/information is not fulfilled in current verification and thus needs to be taken up in consequent verification for better transparency thus holding the applicability of the methodology eligible to the project activity and there is no impact of the same on additionality, baseline scenario & emission reduction calculation of project.

Keeping in line with the Clause 4.1.21 of VCS Standard Version 4.5, Assessment team has documented a summary of total **05 Findings** that include **00 FARs, 02 CLs and 03 CARs** were raised during this verification which were closed successfully and details are provided under [Appendix B](#) of this report.

2.5.1 Forward Action Requests

Based on the review of the VCS Joint Validation and Verification Report Manual /11/ and previous VCS Verification Report /12/, no FAR was raised during Joint Validation and Verification and previous Verification which needs to be closed during this verification and **no FAR has been raised during current verification, (01-April-2022 to 30-June-2023; Inclusive of both start and end dates).**

2.6 Eligibility for Validation Activities

VKU has not undertaken any validation activities as part of the verification and does not possess accreditation for validating any pertinent sectoral scope. Therefore, this section does not apply. It is important to emphasize that during the current verification, no validation assessment has

been carried out either by VKU or concurrently by other certification bodies. This information has been confirmed through focussed group discussions and interview with the Project Proponent (PP), as documented during the hybrid site visit (Onsite + Remote).

Assessment team assessed the VERRA's website at the time of submission: <https://verra.org/validation-verification/vku-certification-pvt-ltd/#vcs> wherein the scope of services of VKU Certification Pvt. Ltd. is mentioned as verification and not validation. VKU Certification Pvt. Ltd is currently undergoing validation accreditation with ANAB for which witness audit has already been conducted. Thus, ensuring that the accreditation details mentioned in FVR is consistent and correct.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

Project's GHG Program Status & Cross-Verification of GHG Benefits:

For current monitoring period, 01-April-2022 to 30-June-2023 (inclusive of both dates). the project has exclusively applied for registration under the Verified Carbon Standard (VCS) with 1728². This sole registration status has been confirmed through rigorous scrutiny of the VERRA registry website.

The project has not been registered under any GHG program. Furthermore, double counting issue has also been assessed and the project verification team performed similar comprehensive search across the GHG programs using matching project titles and capacity, as well as Project Proponent details. This diligent examination did not yield any instances of the project being registered under any of the aforementioned registries or any comparable mechanisms

- I-REC Registry (<https://evident.services/device-register>)
- Gold Standard (<https://registry.goldstandard.org/projects?q=&page=1>)
- Bio Carbon registry (<https://biocarbonregistry.com/en/projects/>)
- ICR registry (<https://www.carbonregistry.com/explore/projects>)
- Social Carbon registry (https://wilder.earth/social_carbon)
- UCR registry (<https://www.ucarbonregistry.io/>)
- Cercarbono registry (<https://www.ecoregistry.io/>)

All above stated websites were checked and this assessment team confirms that project isn't available within any of the above stated databases, at the time of this report date and the project hasn't been listed in any of them.

² <https://registry.verra.org/app/projectDetail/VCS/1728>

Verification through Declaration:

The Project Proponent (PP) has substantiated this single-registration claim through the declaration /30/ submitted, affirming that the GHG emission reductions achieved by the project during the current monitoring period will not be sought or claimed under any other registries apart from VCS.

Issuance Records Confirmation:

The assessment team further corroborated this by cross-checking the issuance records available on the VERRA website. This cross-verification process unequivocally confirmed that the emission reductions generated by the project activity have not been, double counted, thus warranting acceptance by the assessment team. The assessment team has also cross-checked the issuance records (of the VCUs issued during last verification) available on the Verra website and thus confirmed & ensured that the emission reduction generated from the project activity. The weblink for the same has been referenced in the link table below.

Non-Rejection by Other GHG Programs:

The project's non-rejection status by other GHG programs has also been confirmed through a meticulous assessment. A declaration /30/ attesting to this fact was duly verified and found to be accurate by the assessment team. Additionally, an independent verification process was initiated with other relevant registries, which substantiated that there were no instances of project rejection by these entities.

In conclusion, the project's exclusive registration under VCS for the current monitoring period, along with its absence from rejection lists of other GHG programs, has been comprehensively verified, ensuring the integrity and credibility of its GHG benefits claims. Details of the registries checked are as follows:

The details of the registries checked are as follows:

- 1) <https://www.recregistryindia.nic.in/>
- 2) <http://cdm.unfccc.int/>
- 3) <http://www.goldstandard.org/>
- 4) [I-REC Standard - The International REC Standard Foundation \(irecstandard.org\)](http://www.irecstandard.org/)
- 5) <https://cri.nccf.in/>
- 6) [International Carbon Registry - International Carbon Registry](http://www.internationalcarbonregistry.org/)
- 7) [GCC PROJECTS PORTAL \(globalcarboncouncil.com\)](http://www.globalcarboncouncil.com/)
- 8) [VCU Issuance Records](#)
- 9) <https://biocarbonregistry.com/en/projects/>
- 10) https://wilder.earth/social_carbon
- 11) <https://www.ucarbonregistry.io/>
- 12) <https://www.ecoregistry.io/>

3.2 Methodology Deviations

No instances of methodology deviation have been identified throughout the current monitoring period from 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates), signifying the adherence and compliance of the project to the prescribed methodologies. Furthermore, it is noteworthy that no methodology deviations were observed during the Joint Validation & Verification and previous VCS Verification processes which were confirmed from the VCS Joint Validation & Verification report /4/ and previous VCS Verification report/5/ submitted by PP, affirming the project's steadfast commitment to upholding the designated methodologies and ensuring accurate and reliable results.

3.3 Project Description Deviations

A. There is one Project description deviations applied during current monitoring period i.e., 01-April-2022 to 30-June-2023 (Inclusive of both the days).

A.1. Deviation-1:

There are 6 WTGs in this site and only 2 were mentioned in registered PDMR, hence rest 4 are added during current verification along with the geo-coordinates³. However, this doesn't change the project capacity i.e., 10.8 MW. The WTG ID along with geo-coordinates for remaining added 4 WTGs are as follows-

S.NO	WTG Location No	Village	District	Latitude (N)	Longitude (E)	State
1	BRG-506	Burugula	Kurnool	15.14936	77.925586	Andhra Pradesh
2	BRG-556	Burugula	Kurnool	15.233479	77.96228	Andhra Pradesh
3	BRG-558	Burugula	Kurnool	15.236606	77.96491	Andhra Pradesh
4	BRG-559	Burugula	Kurnool	15.240287	77.96884	Andhra Pradesh

The nature of deviation is permanent.

The project location of these four WTGs was verified by the assessment team through Google earth pro/36/ during desk review and photographs of WTGs taken through GPS map camera software/37/ and during remote visit, assessment team also confirmed the same by interviewing

³ The WTGs were added during previous monitoring period but the deviation was not requested. Hence, to maintain consistency deviation is requested in current monitoring period for added WTGs

the site personals/34/ and hence found to be correct. PP has claimed the Emission reduction for these 4 WTGs during the past verifications of this project and it was confirmed by reviewing the last monitoring reports and verification reports available on project webpages. VKU thus states that the above requested deviation is verified and found to be correct and acceptable.

B. The following three deviation was reported during the previous monitoring periods and will be considered in subsequent verifications. Description of the deviation and the assessment on conservativeness of the deviations is provided below:

B.1. Deviation-1:

During the time of registration, project capacity for Bugula-II is registered as 10.4 MW which is a typo-error. The actual capacity for this site is 10.8 MW. This deviation doesn't impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

The actual capacity is verified with commissioning certificates provided to VVB as well as PPAs signed for this project activity and deviation regarding the same has been approved during the monitoring period (01-August-2019 to 31-March-2020) & thus accepted by assessment team.

B.2. Deviation-2:

For Nidhi site the PPA is only for 23.8 MW and 39.1 MW. The electricity generated from rest 27.1 MW is sold through open access. the project was registered assuming the electricity will be sold by signing the long-term PPA for 25 years at a first Tariff of Rs. 5.74/kWh; however long-term PPA could not be structured and PP had to opt for Open Access and sell the electricity to Third Party at varied Tariff rate and for a short-term PPA. However, the highest tariff rate for 27.1 MW site is less than the registered tariff rate and does not affect the additionality of the project.

Assessment team has checked the monthly invoices for the component of 27.1 MW of 90.10 MW for which long term PPA could not be signed and PP is selling electricity through short term PPA under open access to third parties. Assessment team found that highest unit rate achieved during the monitoring period is 5.14 INR/Unit which is found well below PPA rate which is 5.74 INR/Unit. Thus, assessment team found that the deviation from long term PPA to Short term open access does not impact additionality and deviation accepted by assessment team. Further, FAR have been also added to verify the monthly unit rate achieved by PP under short term PPA for 27.1 MW Nidhi site. This deviation has been approved during the previous monitoring period (01-June-2021 to 28-February-2022) verification & thus accepted by assessment team.

B.3. Deviation 3:

For Bhesada site, the JMR is issued for 50.40 MW wind power project but the site in this project activity includes only 8.4 MW, hence the export and import values are apportioned for 8.4 MW using apportioning ratio of 0.17. Assessment team checked the apportioning ratio calculated based on the DGR data of the all WTG (50.40 MW) & DGR data of the WTGs involved in the project activity (8.4 MW). Calculations of ration calculations are transparently mentioned in the ER sheet. Assessment team checked DGR data and Ratio of Verification Report: VCS Version 4.1

15 O.17 found correct. This deviation has been approved during the previous monitoring period (01-August-2019 to 31-March-2020) verification & thus accepted by assessment team.

Above mentioned deviations 2 and 3 were approved during previous monitoring period (i.e., 01-June-2021 to 28-February-2022). As it does not affect project design and additionality of project activity. Hence deviations are accepted by VVB.

3.4 Grouped Project

This is not a grouped project. Therefore, this section is Not Applicable.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

Based on the hybrid (onsite + remote) audit conducted with the project proponent (PP) representative, it was determined that the project is implemented as per the requirement outlined in the registered VCS Joint PD & MR /3/ and approved monitoring plan. The project activity is a wind energy project with total capacity of 493.9 MW, comprising of 253 Wind Turbine Generators (WTGs) of rated capacity of 800 kW, 1700 kW, 2000 kW, 2100 kW, 2300kW commissioned in the period from 30-December-2015 to 30-March-2017/31/.

Wind is the main source of power generation. The power generated from the wind turbine generators (WTGs) is exported to regional grid which falls now under Unified under Indian Grid system. The Project WTGs are currently operational and during the current monitoring period (01-April-2022 to 30-June-2023; Inclusive of both the days) under first crediting period, no unforeseen incidents or events occur that could significantly impact the operation of the project activity were identified, with the exception of scheduled maintenance and service breakdowns. The total duration of these breakdowns was calculated to be 553,931 hours /34/.

It is important to note that these breakdowns did have considerable impacts on the project activity's reduction of greenhouse gas (GHG) emissions or the monitoring methodology employed. Since the drop in ER from the estimated ER for the MP is **-15%** lower that is mainly accounted for low PLF during the current monitoring period. There was unexpected downtime due to wind unavailability and also due to routine maintenance etc.

Table no: 07: Breakdown Hours for the current Monitoring Period (01-April-2022 to 30-June-2023: Inclusive of both dates)

Project Name	Site	No. of WTGs	Total Hours for the project site	Production Hours for the project site	Percentage of Production Hours	Breakdown Hours for the project site	Percentage of Breakdown Hours
Bhesada		4	43,776	38,769.5	88.56%	5,006.5	11.44%
Nidhi		53	580,032	579,769	99.95%	263	0.05%
Nipaniya		15	164,160	163,152	99.39%	1,008	0.61%
Pottipodu		50	547,200	546,386.5	99.85%	813.5	0.15%
Burgula-II		6	65,664	64,896	98.83%	768	1.17%
Aspari-I		55	601,920	94,776	15.75%	507,144	84.25%
Aspari-II		22	240,768	203,496	84.52%	37,272	15.48%

Nazeerabad	48	525,312	523,656	99.68%	1,656	0.32%
Total/Average	253	2,768,832	2,214,901	79.99%	553,931	20.01%

During the monitoring period, the project activity experienced no unexpected incidents or events that could have had a significant impact on its operation. However, there were some scheduled and unscheduled breakdowns for the purpose of plant maintenance and service and caused by either internal or external grid failures. The total duration of these breakdowns was found to be 553,931 hours. This downtime is approx. 19.85% of total available hours of operation of the WTGs, during the current monitoring period.

Breakdown Hours = 553,931

Total Operational Hours of WTGs = 2,768,832

Breakdown % of Total Operational Hours = $(553,931 / 2,768,832) * 100 = 20.01\%$

It's crucial to highlight that these breakdowns had a substantial impact on both the project activity's reduction of greenhouse gas (GHG) emissions and the employed monitoring methodology. The 15% drop in ER, as compared to the estimated ER for the Monitoring Period (MP), is primarily attributed to the low Plant Load Factor (PLF) and unexpected downtime, including instances of wind unavailability and routine maintenance.

The breakdowns were attributed to various minor reasons, which may include:

- Power Panel flash Over
- Temp Generator Bearing DE High Stop
- Elec Test Pitch Time Out Stop
- Gearbox stud issue, USS ACB and 2.3MVA TFR failure
- PM3000 ASIM board failure
- 220 KV line Tower no. 127 Collapsed due to Wind Storm. Replaced Tower then charged Line.
- Blade tip damaged due to Lightning
- EXTL Grid Down from EB/INTL_Feeder Breakdown

The project activity was operational for a total of 2,768,832 hours, representing 456 days. However, during the monitoring period from 01-April-2022 to 30-June-2023, the project experienced breakdowns for a duration of 553,931 hours, as detailed in Appendix 3 of the monitoring report (MR). The breakdown due to scheduled maintenance is as per the manufacture's specification. Moreover, it is important to note that all the 253 WTGs was not entirely shut down during these breakdown hours; only the affected WTGs were temporarily taken out of operation.

The verification process involved reviewing the monthly generation records/35/ and breakdown excel sheet /34/ provided by the project proponent (PP). Additionally, a Hybrid (onsite + remote) site visit to the project sites/38/ was conducted, where it was confirmed that only the affected WTGs were shut down while the rest of the WTGs remained operational. This information is

consistent with the details mentioned in Section 3.1 and Appendix 3 of the MR/01/. The assessment team also conducted interviews with key personnel from the PP, including senior engineers, junior engineers, and an assistant manager/37/. These interviews took place on 18-September-2023, 25-September-2023, 27-September-2023 and 28-September-2023 during the Hybrid (onsite + remote) site visit /38/. The assessment team has concluded that the breakdowns and the resulting partial shutdown of the project activity do not have a significant impact on the calculation of emission reductions (ER). The project underwent continuous operation, with only the affected parts being temporarily shut down. This approach is deemed acceptable by the assessment team and is verified to align with the methodology. Furthermore, no unforeseen incidents were identified that would affect the applicability of the methodology.

It was observed through monthly generation records, breakdown log sheet records present on project site and tripping details for each month submitted to VKU Assessment/Verification Team by PP that the plant supplied 1,008,781.8 MWh of electricity, and thus contributing to 973,770 tCO₂e GHG reductions. The emission reduction for this monitoring period pro rata comparing with registered VCS Joint PD & MR is 1,150,989 tCO₂e, whereas actual emission reductions achieved are 973,770 tCO₂e, which is 15% lower than the estimated emission reductions for the current verification period. Further explanation is provided section 4.5 of this report. The ERs achieved in this monitoring period is basically due to low wind, low PLF and higher breakdowns during this monitoring period.

Figure 1.: Project implemented Location verified and mapped down WTG & Site-wise

Figure 1.1: Bhesada Project Site in State Rajasthan



Figure 1.2: Nidhi Project Site in State Rajasthan

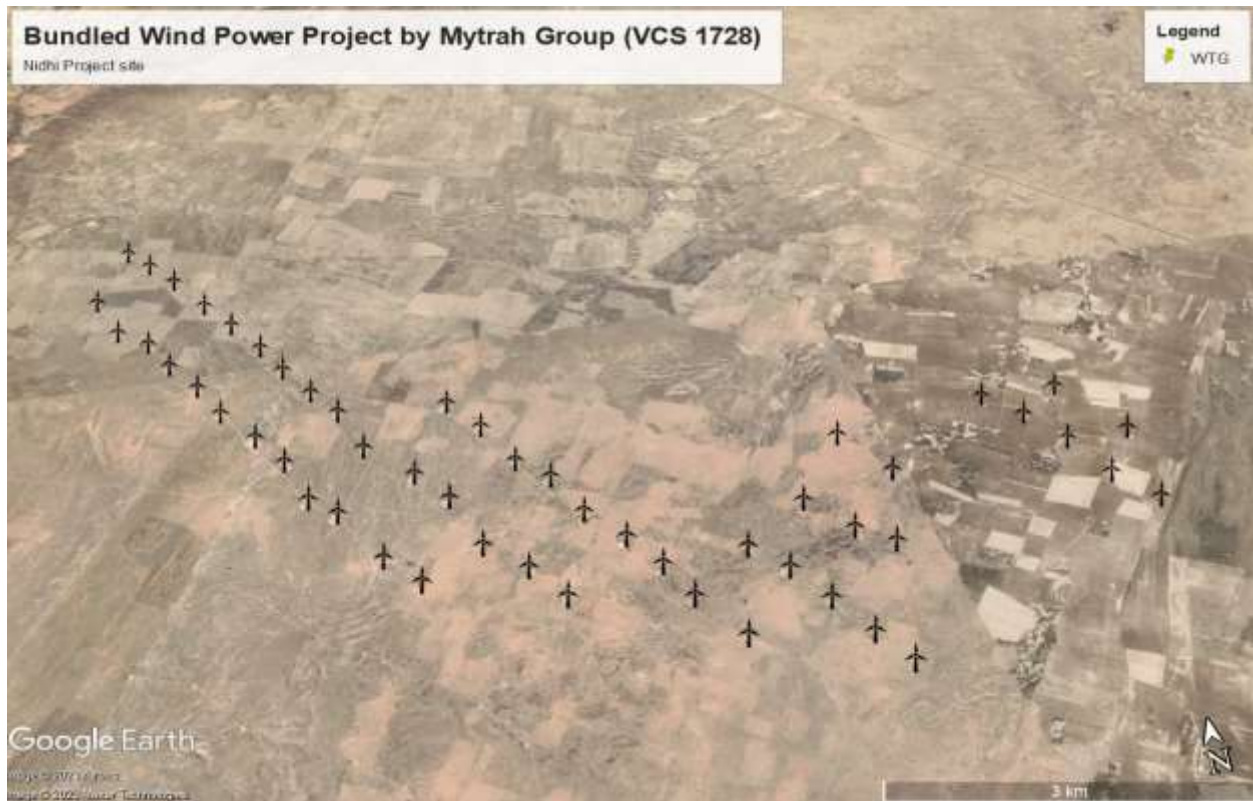


Figure 1.3: Nipaniya Project Site in State Madhya Pradesh

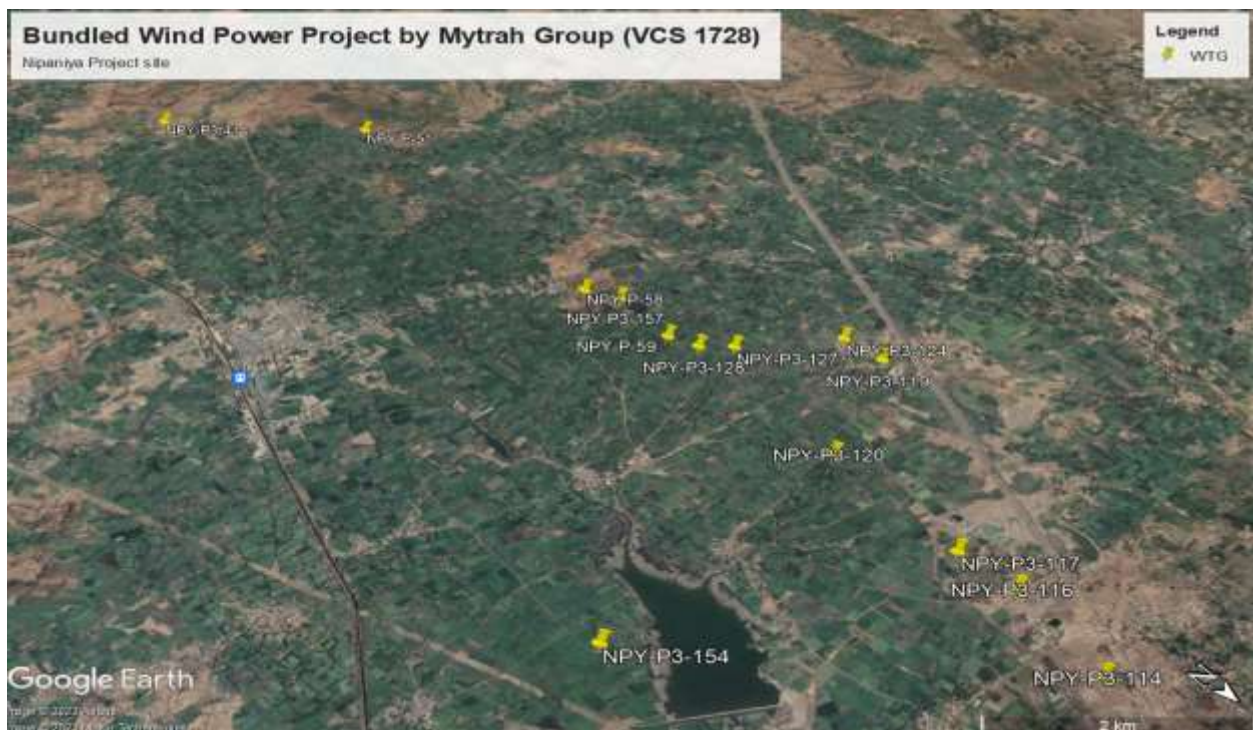


Figure 1.4: Pottipadu Project Site in State Andhra Pradesh

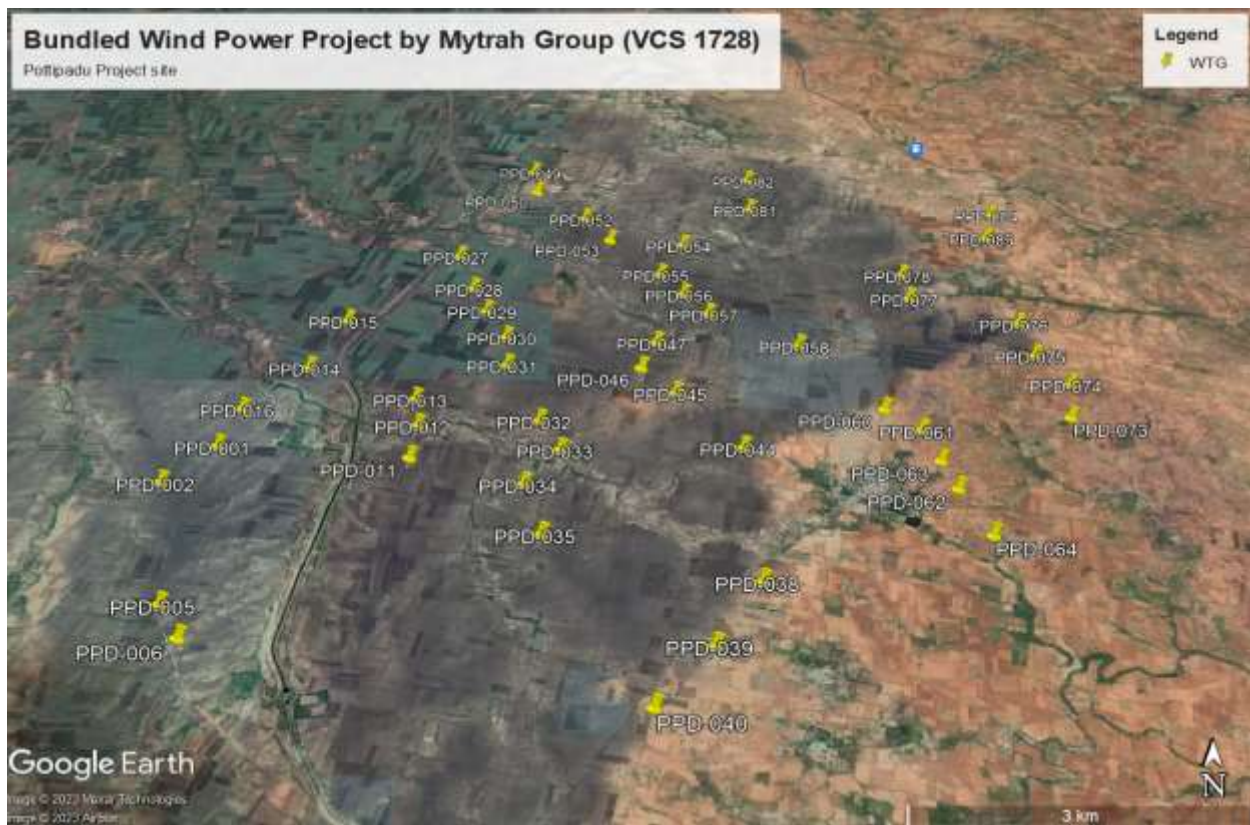


Figure 1.5: Burugulla-II Project Site in State Andhra Pradesh



Figure 1.6: Aspari-I Project Site in State Andhra Pradesh



Figure 1.7: Aspari-II Project Site in State Andhra Pradesh



Figure 1.8: Nazeerabad Project Site in State Telangana



The project location was verified by the assessment team through [Google earth pro/36/](#) during desk review and GPS map camera software during Hybrid (onsite + remote) site visit /37/. Moreover, assessment team confirm that the latitude and longitude as mentioned in the registered VCS Joint PD & MR dated 20-December-2017/3/, VCS MR/1/

Table no 08: The WTG wise commissioning dates, latitudes and longitudes are confirmed below:

S.NO	WTG Location No	Commissioning Date	Village	District	Latitude (N)	Longitude (E)
The location details for the Burgula-II project site: Andhra Pradesh						
1	BRG-552	30-03-2017	Burugula	Kurnool	15.19516	77.93793
2	BRG-553	30-03-2017	Burugula	Kurnool	15.19682	77.93758
3	BRG-506	26-02-2018	Burugula	Kurnool	15.14936	77.925586
4	BRG-556	26-02-2018	Burugula	Kurnool	15.233479	77.96228
5	BRG-558	26-02-2018	Burugula	Kurnool	15.236606	77.96491
6	BRG-559	26-02-2018	Burugula	Kurnool	15.240287	77.96884

The location details for the Nidhi project site: Rajasthan						
1	NDH-001	31-03-2016	Habur	Jaisalmer	27.1770	70.6009
2	NDH-002	31-03-2016	Habur	Jaisalmer	27.1712	70.6035
3	NDH-003	31-03-2016	Habur	Jaisalmer	27.1687	70.6069
4	NDH-004	31-03-2016	Habur	Jaisalmer	27.1646	70.6093
5	NDH-005	31-03-2016	Habur	Jaisalmer	27.1606	70.6123
6	NDH-006	31-03-2016	Habur	Jaisalmer	27.1562	70.6147
7	NDH-007	31-03-2016	Habur	Jaisalmer	27.1520	70.6182
8	NDH-008	31-03-2016	Habur	Jaisalmer	27.1480	70.6210
9	NDH-009	31-03-2016	Habur	Jaisalmer	27.1426	70.6231
10	NDH-010	31-03-2016	Habur	Jaisalmer	27.1403	70.6258
11	NDH-011	31-03-2016	Habur	Jaisalmer	27.1340	70.6296
12	NDH-012	31-03-2016	Habur	Jaisalmer	27.1306	70.6328
13	NDH-013	31-03-2016	Habur	Jaisalmer	27.1264	70.6457
14	NDH-014	31-03-2016	Habur	Jaisalmer	27.1303	70.6428
15	NDH-015	31-03-2016	Habur	Jaisalmer	27.1401	70.6367
16	NDH-016	31-03-2016	Habur	Jaisalmer	27.1439	70.6337
17	NDH-017	31-03-2016	Habur	Jaisalmer	27.1484	70.6290
18	NDH-018	31-03-2016	Habur	Jaisalmer	27.1540	70.6268
19	NDH-019	31-03-2016	Habur	Jaisalmer	27.1575	70.6242
20	NDH-020	31-03-2016	Habur	Jaisalmer	27.1616	70.6214
21	NDH-021	31-03-2016	Habur	Jaisalmer	27.1657	70.6191
22	NDH-022	31-03-2016	Habur	Jaisalmer	27.1701	70.6160
23	NDH-023	31-03-2016	Habur	Jaisalmer	27.1741	70.6130
24	NDH-024	31-03-2016	Habur	Jaisalmer	27.1792	70.6095
25	NDH-025	31-03-2016	Habur	Jaisalmer	27.1827	70.6066
26	NDH-026	31-03-2016	Habur	Jaisalmer	27.1856	70.6040
27	NDH-027	31-03-2016	Habur	Jaisalmer	27.1531	70.6382

28	NDH-028	31-03-2016	Habur	Jaisalmer	27.1490	70.6412
29	NDH-029	31-03-2016	Habur	Jaisalmer	27.1437	70.6439
30	NDH-030	31-03-2016	Habur	Jaisalmer	27.1409	70.6470
31	NDH-031	31-03-2016	Habur	Jaisalmer	27.1359	70.6493
32	NDH-032	31-03-2016	Habur	Jaisalmer	27.1321	70.6526
33	NDH-033	31-03-2016	Habur	Jaisalmer	27.1283	70.6552
34	NDH-034	31-03-2016	Habur	Jaisalmer	27.1242	70.6571
35	NDH-035	31-03-2016	Habur	Jaisalmer	27.1139	70.6741
36	NDH-036	31-03-2016	Habur	Jaisalmer	27.1174	70.6718
37	NDH-037	31-03-2016	Habur	Jaisalmer	27.1216	70.6693
38	NDH-038	31-03-2016	Habur	Jaisalmer	27.1256	70.6667
39	NDH-039	31-03-2016	Habur	Jaisalmer	27.1287	70.6636
40	NDH-040	31-03-2016	Habur	Jaisalmer	27.1337	70.6390
41	NDH-041	31-03-2016	Habur	Jaisalmer	27.1331	70.6707
42	NDH-042	31-03-2016	Habur	Jaisalmer	27.1289	70.6744
43	NDH-043	31-03-2016	Habur	Jaisalmer	27.1266	70.6777
44	NDH-044	31-03-2016	Habur	Jaisalmer	27.1192	70.6606
45	NDH-045	31-03-2016	Habur	Jaisalmer	27.1351	70.6808
46	NDH-046	31-03-2016	Habur	Jaisalmer	27.1407	70.6771
47	NDH-047	31-03-2016	Habur	Jaisalmer	27.1431	70.6942
48	NDH-048	31-03-2016	Habur	Jaisalmer	27.1398	70.6974
49	NDH-049	31-03-2016	Habur	Jaisalmer	27.1357	70.7002
50	NDH-050	31-03-2016	Habur	Jaisalmer	27.1306	70.7023
51	NDH-051	31-03-2016	Habur	Jaisalmer	27.1267	70.7054
52	NDH-052	31-03-2016	Habur	Jaisalmer	27.1358	70.7070
53	NDH-053	31-03-2016	Habur	Jaisalmer	27.1430	70.7026
The location details for the Nipaniya project site: Madhya Pradesh						
1	NPY-P-58	19-03-2016	Jamuniya	Mandsaur	24.2041	75.6108

2	NPY-P3-41	19-03-2016	Dhamniya Diwan	Mandsaur	24.1484	75.6209
3	NPY-P3-114	19-03-2016	Nariya Bujurg	Mandsaur	24.2625	75.6194
4	NPY-P3-116	19-03-2016	Manpura	Mandsaur	24.2537	75.6161
5	NPY-P3-117	19-03-2016	Nariya Bujurg	Mandsaur	24.2484	75.6159
6	NPY-P3-120	20-01-2016	Aakli Shivdas	Mandsaur	24.2349	75.6133
7	NPY-P3-127	19-03-2016	Sagoriya	Mandsaur	24.2197	75.6075
8	NPY-P-59	19-03-2016	Sagoriya	Mandsaur	24.2145	75.6107
9	NPY-P3-157	19-03-2016	Jamuniya	Mandsaur	24.2073	75.6093
10	NPY-P3-112	27-03-2016	Bardiya Amra	Mandsaur	24.2740	75.6223
11	NPY-P3-124	29-03-2016	Jamuniya	Mandsaur	24.2257	75.5991
12	NPY-P3-154	29-03-2016	Guradiyamata	Mandsaur	24.2361	75.6432
13	NPY-P3-119	19-03-2016	Manpura	Mandsaur	24.2300	75.5993
14	NPY-P-51	29-03-2016	Barkheda Uda	Mandsaur	24.1654	75.6055
15	NPY-P3-128	27-03-2016	Sagoriya	Mandsaur	24.2174	75.6098
The location details for the Nazeerabad project site: Telangana						
1	NRB01	31-03-2016	Nazeerabad	Rangareddy	17.2224	77.9471
2	NRB02	27-03-2016	Nazeerabad	Rangareddy	17.2187	77.9479
3	NRB03	27-03-2016	Nazeerabad	Rangareddy	17.2162	77.9491
4	NRB04	27-03-2016	Nazeerabad	Rangareddy	17.2129	77.9502
5	NRB05	27-03-2016	Nazeerabad	Rangareddy	17.2099	77.9513
6	NRB06	27-03-2016	Nazeerabad	Rangareddy	17.2068	77.9510
7	NRB07	31-03-2016	Nazeerabad	Rangareddy	17.2040	77.9518
8	NRB11	31-05-2016	Nazeerabad	Rangareddy	17.1909	77.9314
9	NRB14	27-03-2016	Nazeerabad	Rangareddy	17.1886	77.9362
10	NRB15	27-03-2016	Nazeerabad	Rangareddy	17.1844	77.9300
11	NRB16	27-03-2016	Nazeerabad	Rangareddy	17.1788	77.9233
12	NRB17	27-03-2016	Nazeerabad	Rangareddy	17.1752	77.9234

13	NRB18	31-05-2016	Nazeerabad	Rangareddy	17.1716	77.9242
14	NRB19	31-03-2016	Nazeerabad	Rangareddy	17.1700	77.9295
15	NRB20	31-05-2016	Nazeerabad	Rangareddy	17.1675	77.9230
16	NRB22	31-03-2016	Nazeerabad	Rangareddy	17.1617	77.9171
17	NRB23	31-03-2016	Nazeerabad	Rangareddy	17.1598	77.9247
18	NRB24	31-05-2016	Nazeerabad	Rangareddy	17.1554	77.9300
19	NRB26	27-03-2016	Nazeerabad	Rangareddy	17.1506	77.9221
20	NRB27	31-03-2016	Nazeerabad	Rangareddy	17.1480	77.9295
21	NRB28	27-03-2016	Nazeerabad	Rangareddy	17.1473	77.9220
22	NRB29	31-05-2016	Nazeerabad	Rangareddy	17.1442	77.9128
23	NRB30	31-03-2016	Nazeerabad	Rangareddy	17.1443	77.9282
24	NRB31	27-03-2016	Nazeerabad	Rangareddy	17.1420	77.9208
25	NRB34	27-03-2016	Nazeerabad	Rangareddy	17.1352	77.9174
26	NRB35	27-03-2016	Nazeerabad	Rangareddy	17.1328	77.9273
27	NRB36	31-03-2016	Nazeerabad	Rangareddy	17.1299	77.9436
28	NRB39	31-05-2016	Nazeerabad	Rangareddy	17.1307	77.9328
29	NRB40	27-03-2016	Nazeerabad	Rangareddy	17.1247	77.9443
30	NRB41	27-03-2016	Nazeerabad	Rangareddy	17.1267	77.9321
31	NRB43	27-03-2016	Nazeerabad	Rangareddy	17.1223	77.9303
32	NRB44	31-03-2016	Nazeerabad	Rangareddy	17.1203	77.9405
33	NRB48	06-03-2017	Nazeerabad	Rangareddy	17.1189	77.9478
34	NRB49	27-03-2016	Nazeerabad	Rangareddy	17.1155	77.9566
35	NRB54	31-03-2016	Nazeerabad	Rangareddy	17.1047	77.9537
36	NRB56	27-03-2016	Nazeerabad	Rangareddy	17.0990	77.9548
37	NRB57	27-03-2016	Nazeerabad	Rangareddy	17.0960	77.9551
38	NRB58	31-03-2016	Nazeerabad	Rangareddy	17.0895	77.9509
39	NRB60	31-03-2016	Nazeerabad	Rangareddy	17.1978	77.9525
40	NRB62	31-03-2016	Nazeerabad	Rangareddy	17.1431	77.9875

41	NRB63	31-03-2016	Nazeerabad	Rangareddy	17.1390	77.9877
42	NRB64	31-03-2016	Nazeerabad	Rangareddy	17.1354	77.9894
43	NRB66	31-05-2016	Nazeerabad	Rangareddy	17.1292	77.9909
44	NRB67	31-05-2016	Nazeerabad	Rangareddy	17.1248	77.9920
45	NRB68	31-05-2016	Nazeerabad	Rangareddy	17.1214	77.9941
46	NRB69	31-03-2016	Nazeerabad	Rangareddy	17.1153	77.9932
47	NRB71	31-03-2016	Nazeerabad	Rangareddy	17.1042	77.9862
48	NRB72	27-03-2016	Nazeerabad	Rangareddy	17.0866	77.9500
The location details for the Pottipadu project site: Andhra Pradesh						
1	PPD045	31-12-2015	Pottipadu	Anantapur	15.0403	77.3681
2	PPD046	31-12-2015	Pottipadu	Anantapur	15.0442	77.3645
3	PPD047	31-12-2015	Pottipadu	Anantapur	15.0483	77.3662
4	PPD058	31-12-2015	Pottipadu	Anantapur	15.0478	77.3818
5	PPD076	31-12-2015	Pottipadu	Anantapur	15.0515	77.4067
6	PPD077	31-12-2015	Pottipadu	Anantapur	15.0559	77.3951
7	PPD078	31-12-2015	Pottipadu	Anantapur	15.0602	77.3949
8	PPD081	31-12-2015	Pottipadu	Anantapur	15.0731	77.3780
9	PPD082	31-12-2015	Pottipadu	Anantapur	15.0793	77.3781
10	PPD084	31-12-2015	Pottipadu	Anantapur	15.0720	77.4075
11	PPD085	31-12-2015	Pottipadu	Anantapur	15.0673	77.4060
12	PPD052	05-03-2016	Gulyapalyam	Anantapur	15.0712	77.3578
13	PPD055	05-03-2016	Gulyapalyam	Anantapur	15.0603	77.3668
14	PPD056	05-03-2016	Vajrakarur	Anantapur	15.0567	77.3694
15	PPD057	05-03-2016	Vajrakarur	Anantapur	15.0532	77.3721
16	PPD001	06-03-2016	Gadehothur	Anantapur	15.0324	77.3214
17	PPD002	06-03-2016	Gadehothur	Anantapur	15.0274	77.3169
18	PPD005	06-03-2016	Gadehothur	Anantapur	15.0123	77.3205
19	PPD006	06-03-2016	Gadehothur	Anantapur	15.0086	77.3231

20	PPD011	06-03-2016	Pottipadu	Anantapur	15.0308	77.3411
21	PPD012	06-03-2016	Pottipadu	Anantapur	15.0354	77.3414
22	PPD013	06-03-2016	Pottipadu	Anantapur	15.0393	77.3407
23	PPD014	06-03-2016	Pottipadu	Anantapur	15.0442	77.3287
24	PPD015	06-03-2016	Pottipadu	Anantapur	15.0520	77.3317
25	PPD016	06-03-2016	Vajrakarur	Anantapur	15.0378	77.3228
26	PPD038	06-03-2016	Ganjikunta	Anantapur	15.0150	77.3756
27	PPD039	06-03-2016	Tatrakallu	Anantapur	15.0078	77.3709
28	PPD040	06-03-2016	Vajrakarur	Anantapur	15.0014	77.3654
29	PPD060	06-03-2016	Vajrakarur	Anantapur	15.0378	77.3899
30	PPD061	06-03-2016	Vajrakarur	Anantapur	15.0347	77.3933
31	PPD062	06-03-2016	Vajrakarur	Anantapur	15.0266	77.3957
32	PPD063	06-03-2016	Vajrakarur	Anantapur	15.0304	77.3946
33	PPD064	06-03-2016	Vajrakarur	Anantapur	15.0206	77.3980
34	PPD073	06-03-2016	Vajrakarur	Anantapur	15.0366	77.4091
35	PPD074	06-03-2016	Vajrakarur	Anantapur	15.0416	77.4102
36	PPD075	06-03-2016	Kamalapadu	Anantapur	15.0462	77.4074
37	PPD049	26-03-2016	Konakondla	Anantapur	15.0811	77.3511
38	PPD050	26-03-2016	Konakondla	Anantapur	15.0768	77.3517
39	PPD053	26-03-2016	Gulyapalyam	Anantapur	15.0669	77.3609
40	PPD054	26-03-2016	Gulyapalyam	Anantapur	15.0659	77.3696
41	PPD027	27-03-2016	Gulyapalyam	Anantapur	15.0637	77.3432
42	PPD028	27-03-2016	Gulyapalyam	Anantapur	15.0577	77.3453
43	PPD029	27-03-2016	Vajrakarur	Anantapur	15.0537	77.3471
44	PPD030	27-03-2016	Vajrakarur	Anantapur	15.0492	77.3496
45	PPD031	27-03-2016	Vajrakarur	Anantapur	15.0446	77.3500
46	PPD032	27-03-2016	Vajrakarur	Anantapur	15.0361	77.3539
47	PPD033	27-03-2016	Vajrakarur	Anantapur	15.0319	77.3562

48	PPD034	27-03-2016	Vajrakarur	Anantapur	15.0272	77.3528
49	PPD035	27-03-2016	Vajrakarur	Anantapur	15.0207	77.3548
50	PPD044	27-03-2016	Vajrakarur	Anantapur	15.0322	77.3748
The location details for the Aspari-I project site: Andhra Pradesh						
1	ASP005	15-10-2016	Aspari	Kurnool	15.4721	77.3977
2	ASP006	15-10-2016	Aspari	Kurnool	15.4685	77.3975
3	ASP007	15-10-2016	Aspari	Kurnool	15.4651	77.3981
4	ASP008	15-10-2016	Aspari	Kurnool	15.4613	77.3984
5	ASP009	15-10-2016	Aspari	Kurnool	15.4561	77.3998
6	ASP010	15-10-2016	Aspari	Kurnool	15.4527	77.3985
7	ASP011	15-10-2016	Aspari	Kurnool	15.4491	77.4002
8	ASP012	15-10-2016	Aspari	Kurnool	15.4455	77.4004
9	ASP013	15-10-2016	Aspari	Kurnool	15.4424	77.3998
10	ASP014	15-10-2016	Aspari	Kurnool	15.4383	77.3990
11	ASP015	15-10-2016	Aspari	Kurnool	15.4350	77.3975
12	ASP016	15-10-2016	Aspari	Kurnool	15.4315	77.3978
13	ASP017	15-10-2016	Aspari	Kurnool	15.4280	77.3981
14	ASP018	15-10-2016	Aspari	Kurnool	15.4228	77.4094
15	ASP019	15-10-2016	Aspari	Kurnool	15.4191	77.4079
16	ASP021	15-10-2016	Aspari	Kurnool	15.4149	77.4068
17	ASP022	15-10-2016	Aspari	Kurnool	15.4093	77.4092
18	ASP023	15-10-2016	Aspari	Kurnool	15.4057	77.4099
19	ASP024	15-10-2016	Aspari	Kurnool	15.4011	77.4110
20	ASP025	15-10-2016	Aspari	Kurnool	15.4455	77.4124
21	ASP026	15-10-2016	Aspari	Kurnool	15.4413	77.4126
22	ASP027	15-10-2016	Aspari	Kurnool	15.4369	77.4140
23	ASP028	15-10-2016	Aspari	Kurnool	15.4319	77.4140
24	ASP029	15-10-2016	Aspari	Kurnool	15.4266	77.4136

25	ASP061	15-10-2016	Aspari	Kurnool	15.3893	77.4220
26	ASP062	15-10-2016	Aspari	Kurnool	15.3856	77.4186
27	ASP063	15-10-2016	Aspari	Kurnool	15.3826	77.4137
28	ASP064	15-10-2016	Aspari	Kurnool	15.3792	77.4111
29	ASP065	15-10-2016	Aspari	Kurnool	15.3754	77.4103
30	ASP066	15-10-2016	Aspari	Kurnool	15.3721	77.4079
31	ASP030	20-10-2016	Aspari	Kurnool	15.4416	77.4269
32	ASP031	20-10-2016	Aspari	Kurnool	15.4379	77.4272
33	ASP032	20-10-2016	Aspari	Kurnool	15.4339	77.4278
34	ASP033	20-10-2016	Aspari	Kurnool	15.4305	77.4279
35	ASP035	20-10-2016	Aspari	Kurnool	15.4242	77.4302
36	ASP036	20-10-2016	Aspari	Kurnool	15.4200	77.4328
37	ASP037	20-10-2016	Aspari	Kurnool	15.4165	77.4356
38	ASP038	20-10-2016	Aspari	Kurnool	15.4124	77.4365
39	ASP039	20-10-2016	Aspari	Kurnool	15.4089	77.4376
40	ASP042	20-10-2016	Aspari	Kurnool	15.4211	77.4504
41	ASP043	20-10-2016	Aspari	Kurnool	15.4159	77.4571
42	ASP087	20-10-2016	Aspari	Kurnool	15.4340	77.4495
43	ASP088	20-10-2016	Aspari	Kurnool	15.4406	77.4480
44	ASP089	20-10-2016	Aspari	Kurnool	15.4444	77.4465
45	ASP090	20-10-2016	Aspari	Kurnool	15.4474	77.4443
46	ASP091	20-10-2016	Aspari	Kurnool	15.4518	77.4434
47	ASP092	20-10-2016	Aspari	Kurnool	15.4553	77.4430
48	ASP-001	16-03-2017	Aspari	Kurnool	15.4834	77.4121
49	ASP002	16-03-2017	Aspari	Kurnool	15.4791	77.4161
50	ASP003	16-03-2017	Aspari	Kurnool	15.4745	77.4177
51	ASP093	16-03-2017	Aspari	Kurnool	15.4658	77.4388
52	ASP094	16-03-2017	Aspari	Kurnool	15.4705	77.4381

53	ASP095	16-03-2017	Aspari	Kurnool	15.4740	77.4383
54	ASP139	16-03-2017	Aspari	Kurnool	15.4758	77.3987
55	ASP044	16-03-2017	Aspari	Kurnool	15.4117	77.4612
The location details for the Aspari-II project site: Andhra Pradesh						
1	ASP040	25-03-2017	Aspari	Kurnool	15.3942	77.4422
2	ASP046	25-03-2017	Aspari	Kurnool	15.4053	77.4667
3	ASP047	25-03-2017	Aspari	Kurnool	15.3907	77.4695
4	ASP048	25-03-2017	Aspari	Kurnool	15.3969	77.4698
5	ASP050	25-03-2017	Aspari	Kurnool	15.4208	77.4773
6	ASP052	25-03-2017	Aspari	Kurnool	15.4161	77.4829
7	ASP053	25-03-2017	Aspari	Kurnool	15.4096	77.4789
8	ASP054	25-03-2017	Aspari	Kurnool	15.4059	77.4797
9	ASP055	25-03-2017	Aspari	Kurnool	15.3993	77.4840
10	ASP071	25-03-2017	Aspari	Kurnool	15.3902	77.4451
11	ASP072	25-03-2017	Aspari	Kurnool	15.3864	77.4443
12	ASP073	25-03-2017	Aspari	Kurnool	15.3826	77.4443
13	ASP074	25-03-2017	Aspari	Kurnool	15.3779	77.4442
14	ASP081	25-03-2017	Aspari	Kurnool	15.3792	77.4878
15	ASP082	25-03-2017	Aspari	Kurnool	15.3758	77.4913
16	ASP083	25-03-2017	Aspari	Kurnool	15.3722	77.4924
17	ASP084	25-03-2017	Aspari	Kurnool	15.3688	77.4934
18	ASP086	25-03-2017	Aspari	Kurnool	15.3616	77.4953
19	ASP130	25-03-2017	Aspari	Kurnool	15.4631	77.4228
20	ASP131	25-03-2017	Aspari	Kurnool	15.4528	77.4126
21	ASP132	25-03-2017	Aspari	Kurnool	15.4492	77.4123
22	ASP138	25-03-2017	Aspari	Kurnool	15.4570	77.4138

The implemented project activity is a Greenfield wind power generation activity. The project activity involves installation of 253 Wind Turbine Generators of total 493.9 MW capacity wind power generation project by Mytrah Group (Project Participant).

Start date of the operation of the project activity is commissioning of WTGs on 30-December-2015 which is the date of commissioning/commercial operation of the 1st set of four machines (WTG IDs: RSA 126, RSA 128, RSA 286 and RSA 280) of Bhesada site and the project activity was fully commissioned on 30-March-2017 which is the date of commissioning/commercial operation of the last set of two machines (WTGs ID: BRG-552 and BRG-553) of Burgula Site. Assessment team checked the commissioning certificate/31/ and confirmed that the dates of Commission for all the WTGs are correct. The dates of commissioning were also verified by Assessment team during the Hybrid (Onsite + Remote site visit) audit/38/ that there is no change in project design with reference to previous verification/5/and VCS Standard Version 4.5/10/in section 3.3 of the report. The project is implemented as per the description provided in the registered VCS Joint PD & MR/3/.

The power rating of the WTGs has been verified with the name plates as well as with the technical specifications of WTGs submitted to VKU Assessment/Verification Team by PP and also cross checked from the technical manual of the Manufactures/32/. The same could be verified from the VCS Validation/4/ and Verification Report/5/ Assessment team confirms that the technical parameters are consistent with the registered VCS Joint PD & MR/ 3/. The major technical specifications of the WTG are as follows:

Table no 10: Technical specifications of generator:

The Specification of **Suzlon Energy Limited's** model: **S-97/2100 kW** are as follows:

Power	
Rated power:	2,100.0 kW
Cut-in wind speed:	3.5 m/s
Rated wind speed:	11.0 m/s
Cut-out wind speed:	20.0 m/s
Survival wind speed:	60.0 m/s
Rotor	
Diameter:	97.0 m
Swept area:	7,386.0 m ²
Number of blades:	3
Power density 1:	284.3 W/m ²
Power density 2:	3.5 m ² /kW

Generator	
Type:	Asynchronous
Number:	1
Voltage:	690.0 V
Grid connection:	DFIG
Grid frequency:	50/60 Hz
Tower	
Hub height:	80/90/100/120 m
Type:	Steel tube
Shape:	Conical
Corrosion protection:	Painted

The Specification of **GE India Industrial Pvt. Ltd.** model: **GE 1.7** are as follows:

Power	
Rated power:	1,700.0 kW
Cut-in wind speed:	3.0 m/s
Rated wind speed:	10.0 m/s
Cut-out wind speed:	23.0 m/s
Wind class (IEC):	S
Rotor	
Diameter:	103.0 m
Swept area:	8,332.0 m ²
Number of blades:	3
Type:	50.2m
Material:	GFRP
Power density 1:	204.0 W/m ²

Power density 2:	4.9 m ² /kW
Gear box	
Type:	spur/planetary
Generator	
Type:	Double Fed Asyn
Number:	1
Grid connection:	IGBT
Grid frequency:	50/60 Hz
Tower	
Hub height:	80/96 m
Type:	Steel tube
Shape:	Conical
Corrosion protection:	Painted

The Specification of **GE India Industrial Pvt. Ltd.** model- **GE 2.3** are as follows:

Power	
Rated Power (MW):	2.3
Wind Class:	IIIs
Cut-In Wind Speed:	3
Nominal Wind speed (8 m/s):	14m/s
Cut-Out Wind Speed:	23
Annual Output (8 m/s) in MWh:	10,887 @ 8.5m/s
Nominal Rotor Diameter (m):	107
Hub Height (m):	80,94
Swept Area (m ²):	8,992
Gearbox Ratio :	130.4 (50hz)

Generator Type:	DFIG
Turbine Output (V):	690
Frequency (HZ):	50

The Specification of **Inox Wind Ltd.** model: **DF 100** are as follows:

Power	
Rated power:	2,000.0 kW
Cut-in wind speed:	3.0 m/s
Rated wind speed:	11.0 m/s
Cut-out wind speed:	20.0 m/s
Survival wind speed:	52.5 m/s
Wind class (IEC):	IIIb
Rotor	
Diameter:	100.0 m
Swept area:	7,894.0 m ²
Number of blades:	3
Rotor speed, max:	15.7 U/min
Tipspeed:	82 m/s
Material:	Epoxy glass fibre
Power density 1:	253.4 W/m ²
Power density 2:	3.9 m ² /kW
Gear box	
Type:	spur/planetary
Stages:	3
Ratio:	0.121528
Generator	

Type:	doubly fed induction
Number:	1
Speed, max:	1,800.0 U/min
Voltage:	690.0 V
Grid connection:	IGBT
Grid frequency:	50.0 Hz
Tower	
Hub height:	80/92 m
Type:	Steel tube
Shape:	Conical
Corrosion protection:	Painted

The Specification of 1.6 MW **Wind World India Limited's** model: **WW-53** are as follows:

Power	
Rated power:	800.0 kW
Cut-in wind speed:	3.0 m/s
Rated wind speed:	11.5 m/s
Cut-out wind speed:	28.0 m/s
Rotor	
Diameter:	52.9 m
Swept area:	2,007.0 m ²
Number of blades:	3
Rotor speed, max:	29.5 U/min
Tip speed:	82 m/s
Material:	fiberglass-epoxy resin

Power density 1:	398.6 W/m ²
Power density 2:	2.5 m ² /kW
Gear box	
Type:	direct drive
Generator	
Type:	Synchronous
Number:	1
Speed, max:	29.5 U/min
Grid connection:	Inverters
Grid frequency:	Wind World India
Tower	
Hub height:	74 m
Type:	Concrete
Shape:	Conical

The assessment team confirmed through Hybrid (onsite + remote) site visit with PP representative, there is no proposed or actual change to the project design during this monitoring period. It was observed that the monitoring plan was implemented as per the registered VCS Joint VCS PD & MR/3/ and applied methodology ACM0002 Version 17.0/13/. The organizational role and responsibility as mentioned in the registered VCS Joint PD & MR/3/ is followed during the hybrid site visit. Meters are calibrated as per calibration frequency in registered VCS Joint PD & MR /3/. All the emergency preparedness is followed as mentioned in MR/1/ and no discrepancies were found regarding the same.

The daily operation of the Wind Turbine Generators (WTGs) is overseen by the operator on site. The operator reports to the Assistant Engineer (AE) - Wind Farm, who is tasked with gathering necessary data from the operator. The AE - Wind Farm records daily generation data for each service connection point and communicates the cumulative generation figures to the management.

The VCS Project Coordinator has the responsibility of annually assessing the achieved emission reduction and documenting these results. This coordination ensures that the project maintains a systematic record of its emissions reductions for compliance and reporting purposes.

Assessment team concludes the following:

- a) There are no major material discrepancies between project implementation and the project description provided in the registered VCS Joint PD & MR. However, PP has requested deviations which is mentioned in section 3.3 of this report. It is important to note that these deviations does not affect project design and additionality of project activity /3/.
- b) The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling and analysing the monitored data and parameters) is appropriate.
- c) There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the first crediting period of VCS Joint Project Description and Monitoring Report/3/ and the applied methodology/13/.
- d) Materiality threshold applied is **01%** as per 4.1.10 of VCS Standard v4.5, It was concluded that the materiality threshold applicable to the project activity based on the type of project i.e., Large Project is 01%. This effectively means that there is uncertainty inherent in the estimation of emission reduction of 01%. This is consistent with the section 4.1.10 of VCS standard v4.5 which is equal to 9,737.70 tCO₂e.
- e) The GHG emission reductions or removals generated by the project have not been included in any emissions trading program or any other mechanism that includes GHG allowance trading/30/.
- f) Complying with clause 3.24.5 of the VCS Standard version 4.5, the Assessment Team confirms that the project has not received or pursued any other form of environmental credit, nor has it become eligible to do so since VCS Validation /4/and Verification/5/.
- g) The project Activity is a wind power project and does not involve any supply chain in the project such as manufacturers, wholesalers, distributors and retailers. So, no indirect upstream and downstream GHG emissions are involved in the project activity. Thus, the **Scope 3 emissions are not applicable in this project activity.**
- h) The project is registered under VCS⁴,however PP has submitted the declaration/30/stating, they will not claim same GHG emission reductions of the project from any other GHG programme for the current monitoring period when project is seeking to get GHG emission reduction from VCS. Audit team also checked the REC/15/ Mechanism database of India and I-REC/16/ mechanism database found that the project activity is not accredited / registered under REC or I-REC mechanism which was verified from the (Renewable Energy Certificate Registry of India) REC/15/ (International-Renewable Energy Certificate Standard Standard) I-REC/16/ website and same was verified by checking in other GHG programs including GS Registry, CDM, GCC, UCR & CR-I, however PP has submitted the declaration/30/ for the same.
- i) The project activity complies with indicators for **sustainable development** in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India as

⁴ <https://registry.verra.org/app/projectDetail/VCS/1728>

discussed under **section 1.11 of MR/1/**. Assessment team has verified the same during on site visit/38/ and found all the indicators to be effective and applicable for the project activity.

As per the VCS Standard Version 4.5⁵ Page no 79, Appendix 03: Document History and Effective dates, For V4.2, serial number 04 states that “it is required by project proponents to demonstrate contributions to a minimum of three SDGs in all monitoring reports verified after the effective date. Effective immediately for all projects that request registration on or after 20-January-2023. Projects that request registration before 20-January-2023 shall demonstrate contributions to at least three SDGs by 20-January-2025”. This is project's seventh periodic verification of first crediting period for the Monitoring Period 01-April-2022 to 30-June-2023(Inclusive of both start and end dates), Since this project is registered before 20-January-2023, so the Project Proponent (PP) must demonstrate contributions to at least three SDGs by 20-January-2025.

For the current monitoring period, the PP is voluntarily showing contributions to three SDGs, as indicated below i.e.,

- **SDG no 7.2: (Renewable energy share in the total final energy consumption)**
- **SDG no 8.6: (Proportion of youth (aged 15-24) not in education, employment or training)**
- **SDG no 13.2.1: (Tonnes of greenhouse gas emissions avoided or removed)**

The project activity has implemented activities that results in 3 SDG Contributions; 7.2, 8.5 & 13.2

1. **7.2 i.e. (Renewable energy share in the total final energy consumption)** As a part of this project activity lifetime (554,193 + 1,808,485 + 609,924 + 872,848 + 45,429 + 1,062,432 + 1,008,781.8⁶ = 5,962,092.8⁷) MWh Net renewable electricity has been exported to Indian grid that helps to strengthen the renewable energy share in the energy mix. VKU Assessment/Verification Team has referred previous verification reports /5/ monitoring report for current monitoring period/1/ & emission reduction sheet/2/ which were cross checked from JMRs/27/ & Invoices/28/ submitted to the VKU Assessment/Verification Team for current monitoring period and thus found the above claimed renewable electricity supplied to Indian grid is correct.
2. **8.6 i.e. (Proportion of youth (aged 15-24) not in education, employment or training)** Due to installation of this project activity i.e., Wind Turbine generators (WTGs) a total of 215 peoples are employed during this reporting period. Out of which 52 are permanent employees and 163 are on contractual basis. And a total of 5 training was provided during the current monitoring period. VKU Assessment/Verification Team has referred previous verification

⁵ <https://verra.org/documents/vcs-standard-v4-5/>

⁶ Contribution of Renewable energy share in the total final energy consumption to current MP i.e., 7th Verification Period

⁷ <https://registry.verra.org/app/projectDetail/VCS/1728>

reports /5/ & monitoring report for current monitoring period/1/. which were cross checked from Attendance Sheets /40/submitted to the VKU Assessment/Verification Team for current monitoring period and thus found the above claimed is correct.

3. **13.0 i.e. (Tonnes of greenhouse gas emissions avoided or removed)** Due to installation of this project activity i.e., Wind Turbine generators (WTGs) PP has prevented the release of $(534,957 + 1,745,723 + 588,760 + 842,554 + 43,848 + 1,025,562 + 973,770^8 = 5,755,174^9)$ tCO₂e into the atmosphere during current monitoring period i.e., 01-April-2022 to 30-June-2023(Inclusive of both the days) Thus, proving that the project generates eco-friendly, GHG free power which contributes to sustainable development of the region. VKU Assessment/Verification Team has referred previous verification reports /5/ monitoring report for current monitoring period/1/ & emission reduction sheet/2/ which were cross checked from JMRs/27/& Invoices/28/ submitted to the VKU Assessment/Verification Team for current monitoring period that now conclude that the above claimed greenhouse gas emissions avoided or removal is correct.

Since the project is continuation of activity as per the registered Joint PD & MR, it is a regulatory surplus activity. The green energy target of the Govt of India does not include green energy generated from wind turbines from private parties. This was assessed as the TL is an expert of local regulations and statutes of country India and thus in view of the information as verified above the VKU assessment team is able to conclude that the project has been implemented as described in the registered VCS Joint Project Description and Monitoring Report version 03 dated 20-December-2017/3/and MR /1/.

All the above stated information was verified by VKU Certification assessment team during Hybrid (onsite + remote) site visit /38/ at the project implemented site and also by interviewing the site personnel and by conducting focussed group discussion with them /37/.

There are no potential harmful socio-economic and environmental effects in the project activities. VKU Assessment/Verification Team has assessed the project activity and confirms that there were no negative environmental and socio-economic impacts observed during current monitoring period as all necessary measures were found in place which was confirmed during hybrid site visit /38/.

As per the section 1.1 of the MR/01/, PP has provided the audit history as below:

Audit Type	Period (Inclusive of both dates)	Program	VVB Name	Number of years

⁸ Contribution of Tonnes of greenhouse gas emissions avoided or removed to current MP i.e., 7th Verification Period

⁹ <https://registry.verra.org/app/projectDetail/VCS/1728>

Joint Validation - Verification	30-December-2015 to 24-November-2017	VCS	<u>LGAI Technological Center S.A.</u>	01 Year 10 Months 27 days
Verification	25-Novemeber-2017 to 31-July-2019	VCS	<u>Earthhood Services Private Limited</u>	02 Years 01 Month 01 Day
Verification	01-August-2019 to 31-March-2020	VCS	<u>LGAI Technological Center S.A.</u>	00 Year 08 Months 00 Day
Verification	01-April-2020 to 31-May-2021	VCS	<u>KBS certification Pvt Ltd.</u>	01 Year 02 Months 00 Day
Verification	01-June-2021 to 28-February-2022	VCS	<u>LGAI Technological Center S.A.</u>	00 Year 09 Months 00 Day
Verification	01-March-2022 to 31-March-2022	VCS	<u>LGAI Technological Center S.A.</u>	00 Year 01 Month 00 Day
Verification	01-April- 2022 to 30-June-2023	VCS	VKU certifications	01 Year 03 Months 00 Day
Total	30-December-2015 to 30-June-2023	VCS	—	07 Years 06 Months 01 Day

This has been checked by the verification team through joint validation and verification/5/ and previous verification reports/5/ already approved and uploaded on [Verra's webpage](#) which is deemed accurate and satisfactory to VKU's assessment team.

4.2 Safeguards

4.2.1 No Net Harm

The project activity involves implementation of WTGs as a voluntary measure to strengthen the national grid (Now Unified Indian Grid) of India through exploitation of wind power generation potential available to India and in accordance with the Ministry of Environment, Forest and

Climate Change (MoEF&CC) Notification dated 14-September-2006 (S.O. 1533(E)¹⁰ as amended in 2009/23/ and as per the report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects ” prepared by MNRE dated September-2013¹¹, Since the project involves wind-based activities and the project activity operations do not result in direct air pollution, noise pollution therefore it is exempt from Environmental Impact Assessment (EIA) submission and it is not required to obtain clearance from the Pollution Control Board.

Throughout the monitoring period, the project operation had no negative impacts on air, water, soil quality, surroundings, or socio-economic factors. Moreover, there were no anticipated adverse environmental or socio-economic effects, eliminating the need for mitigation measures. The use of wind energy as a renewable resource not only preserved natural resources but also promoted environmental well-being without any detrimental consequences for the local environment.

Additionally, the Monitoring Report MR/1/ explicitly confirmed that the project proponent (PP) ensured that the operational and maintenance phases had no adverse effects on air, water or ecological aspects. The project's commitment to eco-friendly power generation has resulted in sustainable development within the region, as highlighted in MR/1/.

Furthermore, the project activity has positively impacted the local community by creating job opportunities during construction and operation phases, as verified through hybrid (onsite + remote) interviews /39/ and visits /38/ by the VKU Assessment Team.

4.2.2 Local Stakeholder Consultation

The project in question i.e., VCS 1728: “Bundled Wind Power Project by Mytrah Group” has undergone stakeholder consultation in compliance with the Verified Carbon Standard (VCS) and local regulations. Various stakeholder groups, including local villagers, panchayat members, shopkeepers, suppliers, vendors and representatives of PPs, were engaged through multiple phases using methods such as focus group discussions and social mapping.

A meeting was organized for stakeholders at the respective wind project sites of this bundled project activity, and they were invited through public notices in local newspapers with sufficient notice to encourage their participation.

Sr. no	Project Activity Name	Notice date	Stakeholder Consultation date
1	Mytrah Vayu (Indravati) Pvt. Ltd.	10/11/2015	21/11/2015
2	Mytrah Vayu (Indravati) Pvt. Ltd.	11/08/2015	22/08/2015

¹⁰ <http://www.environmentwb.gov.in/pdf/EIA%20Notification,%202006.pdf>

¹¹ <https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf>

3	Mytrah Vayu (Som) Pvt. Ltd.	08/02/2016	20/02/2016
4	Mytrah Vayu (Som) Pvt. Ltd.	28/01/2016	06/02/2016
5	Mytrah Vayu (Godavari) Pvt. Ltd.	15/02/2016	22/02/2016
6	Mytrah Vayu (Krishna) Pvt. Ltd.	10/01/2017	18/01/2017
7	Mytrah Vayu (Tungabhadra) Pvt. Ltd.	12/09/2016	20/09/2016

As stated in the MR/1/ and verified through hybrid (onsite + remote) site interviews with site personnel, it was evident that local stakeholders recognized and appreciated the positive impacts of the wind power project. These positive impacts included increased employment opportunities, enhanced land value, and improved infrastructure in the region. The stakeholders expressed gratitude for the project proponent's efforts towards environmental welfare and acknowledged the project's contribution in generating employment locally.

To ensure open communication and address any concerns, a grievance/suggestion register was established at site for stakeholders to lodge their complaints. However, during the monitoring period, no complaints were received, as confirmed by the VKU assessment team during their hybrid (onsite + remote) site visit. Additionally, the VKU verification team did not come across any negative comments or feedback from local stakeholders during their hybrid (onsite + remote) site assessment, as summarized in section 2.2 of MR/1/.

During the hybrid (onsite + remote) interviews, the verification team specifically examined the compilation of inputs and feedback from stakeholders, and they found that the project proponent had appropriately considered and accounted for them. As a result, the verification team concluded that the ongoing communication with local stakeholders complies with the established guidelines defined in section 3.18, clause 3.18.3, 3.18.4 of the VCS Standard Version 4.5/07/. The project proponent's efforts in engaging with stakeholders have been deemed suitable and in line with the prescribed requirements.

The local stakeholders interviewed in Interviews section 2.3 of this report confirmed the same. Hence confirming that the project activity does not have a negative impact on the surrounding environment, thus promoting environmental wellbeing, hence complying with the guidelines set in section 3.19 of VCS standard version 4.5.

4.3 AFOLU-Specific Safeguards

As the project comes under the category of NON - AFOLU projects therefore this section does not apply for this verification. Hence Not Applicable.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The equations and choices provided in the methodology /13/ and all other methodological tools are correctly quoted in the MR /1/. The emission reductions of the project activity are calculated using the formulae mentioned in the applied methodologies i.e., ACM0002 Version 17.0 /13/. The verification team has reviewed the emission reduction spread sheets (ER sheets) /2/ and checked all the formulae and found they are correct and are in accordance with the monitoring plan of the PD /03/ and the applied monitoring methodology /13/.

The project monitoring plan involves only one parameter to be monitored;

- 1) **EG_{P,y}** (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y);

All monitored parameters are according to the monitoring plan and monitoring report/1/.

The monitoring plan specified in the registered VCS joint Project Description and Monitoring Report version 03, dated 20-December-2017, is diligently being followed at the site. The assessment team has conducted a thorough verification of the entire information flow, starting from data generation and aggregation to recording, calculation, and reporting of the relevant parameters in the Monitoring Report (MR/1/). The emission reductions are based on the net electricity generated and exported from the project.

The project proponent (PP) has provided all the necessary data for the current monitoring period, ensuring a comprehensive and accurate assessment. The values of the parameter "Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y" which were used in deriving the greenhouse gas (GHG) emission reduction, have been found to be well correlated between the data sets and the Emission Reduction (ER) spreadsheet provided by the PP.

The appropriateness of default values used in the monitoring report is elaborated below:

Table No: 11 Data and Parameters Available at Validation or Ex-ante parameters:

Parameter	Unit	Description	Value
EF _{grid,CM,y}	tCO ₂ e/MWh	Combined Margin CO ₂ Emission Factor in year y	0.9653 tCO ₂ e/MWh is consistent with the registered VCS Joint PD & MR Version 03 dated 20-December-2017/3/ Combined Margin Emission Factor (EF _{grid,CM,y}) is calculated as the weighted average of Operating Margin Emission Factor (EF _{grid,OM, y}) and Build

			Margin Emission Factor ($EF_{grid,BM,y}$) and tool to calculate the emission factor for an electricity system
$EF_{grid,OM,y}$	tCO ₂ e/MWh	Operating Margin CO ₂ emission factor in year y	0.9843 tCO ₂ e/MWh is consistent with the registered VCS Joint PD & MR Version 03 dated 20-December-2017/3/ Calculated from CEA database, Version 12, May-2017/20/
$EF_{grid,BM,y}$	tCO ₂ e/MWh	Build Margin CO ₂ emission factor in year y	0.9083 tCO ₂ e/MWh is consistent with the registered VCS Joint PD & MR Version 03 dated 20-December-2017/3/ Calculated from CEA database, Version 12, May-2017/20/

Data and Parameters Available at Verification or Ex-post parameter:

$EG_{PJ,y}$ (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y) = **1,008,781.84 MWh**

Site Name	Unit	Value (Vintage Vise)		
		2022	2023	Total
Net Electricity Supplied $EG_{PJ,y}$ Bhesada	MWh	12,143	7,861	20,003
Net Electricity Supplied $EG_{PJ,y}$ Pottipadu	MWh	140,878	81,005	221,883
Net Electricity Supplied $EG_{PJ,y}$ Nidhi	MWh	58,455	56,359	114,814
Net Electricity Supplied $EG_{PJ,y}$ Nipaniya	MWh	29,098	22,917	52,015
Net Electricity Supplied $EG_{PJ,y}$ Nazeerbad	MWh	171,593	106,607	278,199
Net Electricity Supplied $EG_{PJ,y}$ Burgulla-II	MWh	21,342	11,484	32,826
Net Electricity Supplied $EG_{PJ,y}$ Aspari	MWh	164,107	124,934	289,041
Total Net Electricity Supplied $EG_{PJ,y}$	MWh	597,615.56	411,166.38	1,008,781.84

The verification of monitoring parameter has been discussed later in [section 4.5](#)

According to applied methodology ACM0002; Version 17.0/13/ the emissions are calculated as below:

According to applicable methodology ACM0002; Version 17.0 ¹² under section 5 of Baseline Methodology Procedure with further description under section 5.4-page 13 about Project emissions & under section 5.6-page 21 about Leakage emissions that since project activity is a Wind power project and no other kind of fossil fuel has been used in the current monitoring period on site thus no leakage emission is considered according to the methodology used & since this is a renewable project activity no project emissions from the project activity are considered.

Leakage emissions: $LE_y = 0 \text{ tCO}_2\text{e}$

Project Emissions: $PE_y = 0 \text{ tCO}_2\text{e}$

Methods and formulae set out in the project description for calculating actual emissions for current monitoring period:

The calculation of emission reduction has been done in accordance with the applied methodology used i.e., ACM0002 Version 17.0 /13/. As per the applied methodology, the values of project emission and leakages are considered as zero for the project activity. The equation used for calculation of baseline emission is given below:

GHG Emissions are calculated as follows: Equation (11)

Where,

$BE_y = EG_{pj,y} \times EF_{grid,CM,y}$	
$BE_y =$	Baseline Emissions (tCO ₂ /year)
$EG_{pj,y} =$	Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y
$EF_{grid,CM,y} =$	Combined Margin CO ₂ emission factor in year y
Therefore, the baseline emissions for Year 2022 (from 01-April-2022 to 31-December-2022)	
$= 597,615.56 \text{ MWh} \times 0.9653 \text{ tCO}_2/\text{MWh}$	
= 576,875 tCO₂e (Round down Value)	
Therefore, the baseline emissions for Year 2023 (from 01-January-2023 till 30-June-2023)	
$= 411,166.38 \text{ MWh} \times 0.9653 \text{ tCO}_2/\text{MWh}$	
= 396,895 tCO₂e (Round down Value)	
The Total baseline Emissions = 576,875 + 396,895 = 973,770 tCO₂e	

¹² <https://cdm.unfccc.int/UserManagement/FileStorage/D5YFS9I3VKBT18MQNGX0LPZ6U7AWCO>

All of the 253 were in operation throughout the current monitoring period, and the project activity generated 1,008,781.8 MWh of energy, resulting in 973,770 tCO₂e GHG reductions.

Estimated Emission Reduction as in VCS PD for the equivalent period of the current Monitoring period, 01-April-2022 to 30-June-2023 (Inclusive of both the days):	
Monitoring Period Start Date	01-April-2022
Monitoring Period End Date	30-June-2023
Days in Current Monitoring period	456
Annual VCUs as per VCS PD	921,296 (tCO ₂ e)
Estimated Emission Reduction as in VCS PD for the equivalent period of the current Monitoring period	= (Annual Estimated GHG emission reductions as per revised VCS PD/Total days in a year) *days in current monitoring period = (921,296/365) * 456 = 1,150,989 (tCO₂e)
Actual Emission Reduction as per MR and ER during current Monitoring period	973,770 (tCO₂e)
Percent difference	-15 % Lower than the estimated

The estimated emission reduction for the present monitoring period is 1,150,989 tCO₂e, however the achieved emission reductions are 973,770 tCO₂e (round down value), or around 15% lower than the estimated emission reductions.

Section 5.4 of the Monitoring Report (MR/1/) presents detailed calculations, which have been cross-checked and verified through the compiled Emission Reduction (ER/2/) spreadsheet. The verification team ensured the accuracy of these calculations by referencing the Joint Meter Readings (JMRs)/B-Forms/Credit Notes/Share Certificates/27/ and cross-checking the data with invoices /28/.

The daily generation schedule is prepared by the plant team, and the Power is sold to the Respective State Electricity Entities/DISCOM according to the (PPA/25/). There are multiple entities responsible for monitoring the generation of the Wind Turbine Generators (WTGs), daily and maintains a log book recording daily generation details for each WTG within the project, as measured at the wind farm. The VKU assessment team verified these records during their hybrid (onsite + remote) site visit /38/. Table below details about the Name of State Entity/DISCOM along with name of Operation and Maintenance Entity at all the project implemented locations:

Site Name	Maintenance Entity	State Entity/DISCOM
Bhesada	Suzlon Power Infrastructure Limited	Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPL)
Nidhi	GE India Industrial Private Limited (GEIPL)	Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPL)
Nipaniya	Inox Wind Infrastructure Services Limited	Madhya Pradesh Paschim Kshetra Vidyut Vitran Company Ltd. (MPPKVCL)

Pottipodu	Suzlon Global Services Limited	Andhra Pradesh Electricity Commission (APPCC) / Southern Power Distribution company of Andhra Pradesh Ltd. (APSPDCL)
Burgula-II	Suzlon Global Services Limited	Andhra Pradesh Electricity Commission (APPCC) / Southern Power Distribution company of Andhra Pradesh Ltd. (APSPDCL)
Aspari-I	GE India Industrial Private Limited (GEIPL)	Andhra Pradesh Electricity Commission (APPCC) / Southern Power Distribution company of Andhra Pradesh Ltd. (APSPDCL)
Aspari-II	GE India Industrial Private Limited (GEIPL)	Andhra Pradesh Electricity Commission (APPCC) / Southern Power Distribution company of Andhra Pradesh Ltd. (APSPDCL)
Nazeerabad	Suzlon Global Services Limited	Telangana State Southern Power Distribution Company Limited (TSSPDCL).

The calculations/measurement of net electricity supplied to grid is under purview of state electricity board and the Project Proponent/Project activity Instance owner has no role on it. PP/Project activity Instance owner gets value of net electricity supplied to grid and hence this parameter is mentioned as a part of monitoring plan.

The electricity generated by both the project activity WTGs and non-project WTGs is metered at a feeder-wise common metering point. This metering point comprises a main meter and a check meter, both having an accuracy of 0.2s. These meters measure parameters such as export and import for all connected WTGs. As specified in the registered VCS Joint Project Description and Monitoring Report/3/ and MR/1/, the net electricity supplied to the grid is calculated by summing up the net electricity export figures of individual WTGs. The difference is then multiplied by the applicable meter multiplication factor.

The monitoring and measurement of electricity at the project metering point are carried out continuously, while the recording is done on a monthly basis through Joint Meter Readings, performed jointly by representatives of the State Utility and the project proponent (PP).

PP has submitted all the evidences like JMRs/B-Forms/Credit Notes/Share Certificates/27/ and Invoices /28/ to VKU Assessment/Verification Team for verification and assessment of ER Sheet/2/

Hence VKU Assessment/Verification Team can state that the calculation method and formulae used in calculating baseline emission is following the methodology used i.e., ACM0002: "Grid-connected electricity generation from renewable sources - ACM0002 Version 17.0"/13/.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

When verifying the reported emission reduction, VKU ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source documents that form the basis for assumptions and other information underlying the GHG data are shown above.

When assessing the audit trails, VKU also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. The source and nature of the evidence
3. If comparable information was available from sources other than that used in the monitoring report/1/, VKU cross-checked the monitoring report against the other sources to confirm that the stated figures were correct. The sources and the data referenced are shown in [Section 2.2](#) above.

All records needed for monitoring are archived in line with the requirements of the registered monitoring plan. No significant, lack of evidence and missing data were detected during verification. Hence, the verification team confirms that the monitoring system ensures required quality of the monitoring system to ensure the quality of the monitored data. All internal data are subjected to QA/QC measures.

There is only one single parameter to be monitored;

- 1) **EG_{PJ,y}** (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y) ;

The below table describe how the parameter **EG_{PJ,y} (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y)**, that is to be measured according to the monitoring plan, has been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are met:-

Table No: 12 Assessment of Parameter EG_{PJ,y} (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y)

Parameter	EG _{PJ,y} (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y)	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated parameter and recorded at least monthly by energy meter. The quantity of net electricity exported to the grid by WTGs is recorded with the aid of energy

		meter for each feeder in MWh for cross check of import and export electricity. Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y, is calculated by summation of net electricity generation supplied by all the WTGs of this bundled project activity.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered VCS Joint PD & MR/3/ and monitoring methodology/13/. Also, in current monitoring period there is no deviation from the stated procedures in the registered monitoring plan. This was verified by assessment team during desk review and by Team Leader during hybrid (onsite + remote) site visit and remote site visit at all the plant sites and interviews/37/ with site personnel.
	Monitoring equipment	All meters employed in this bundled project activity are of the bi-directional tri-vector type, possessing an accuracy class of 0.2s.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate $EG_{PJ,y}$ is 0.2s, which is as per the registered VCS Joint PD & MR/03/ which is as per the norm defined in PPA /25/
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes, the accuracy is valid for the entire current monitoring period i.e., 01-April-2022 to 30-June-2023(Inclusive of both the days)

	Calibration frequency /interval:	The calibration of all the meters will be undertaken at required intervals (CEA order dated 17-March-2006; which prescribes under the para 18(b) that "all the meters shall be tested once in five years." Thus, validity of the calibration is considered for five years), As per VCS Joint PD & MR “The project adheres to all the mandatory regulatory and statutory requirements at the state as well as national level.” This applies to current monitoring period too.											
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?	Yes, it is in line with the monitoring plan & registered methodology. Outlined in the registered VCS Joint PD & MR dated 20-December-2017/3/. The calibration frequency is once in five years as per PPA/25/. Thus, validity of the calibration is considered for five years which is in accordance with the national standards i.e., Clause 18 of Central Electricity Authority (Installation and Operation of Meters) 2018 /22/											
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes, Calibration certificates /26/ of the measuring equipment’s is carried out by accredited person or institution under the preview of state entity/Discom. <table><tr><th>Site</th><th>Calibration Entity</th></tr><tr><td>Bhesada</td><td>Darsh Calibration Pvt. Ltd.</td></tr><tr><td>Nidhi</td><td>Darsh Calibration Pvt. Ltd.</td></tr><tr><td>Nipaniya</td><td>MPPTCL</td></tr><tr><td>Pottipodu</td><td>Yathva Energy Solutions Pvt. Ltd.</td></tr><tr><td>Burgula-II</td><td>Yathva Energy Solutions Pvt. Ltd.</td></tr></table>	Site	Calibration Entity	Bhesada	Darsh Calibration Pvt. Ltd.	Nidhi	Darsh Calibration Pvt. Ltd.	Nipaniya	MPPTCL	Pottipodu	Yathva Energy Solutions Pvt. Ltd.	Burgula-II
Site	Calibration Entity												
Bhesada	Darsh Calibration Pvt. Ltd.												
Nidhi	Darsh Calibration Pvt. Ltd.												
Nipaniya	MPPTCL												
Pottipodu	Yathva Energy Solutions Pvt. Ltd.												
Burgula-II	Yathva Energy Solutions Pvt. Ltd.												

		Aspari-I	Yathva Energy Solutions Pvt. Ltd.
		Aspari-II	Yathva Energy Solutions Pvt. Ltd.
		Nazeerabad	Yathva Energy Solutions Pvt. Ltd.
		The calculation of net electricity supplied to grid is under purview of state electricity board and PP does not have control on it.	
		In case of any faulty readings observed appropriate corrective action will be taken. If the error is found beyond the permissible limits, the PP will inform the respective agency so as to immediately rectify the error in the instrument, which was confirmed during hybrid (onsite + remote) site visit while interviewing/37/ the site personnel at project site/PP.	
	Is(are) calibration(s) valid for the whole reporting period?	Yes, the calibration is valid throughout the whole reporting period. i.e., 01-April-2022 to 30-June-2023(Inclusive of both the days).	
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately for current monitoring as per the registered monitoring plan and VCS VVS manual version 3.2/8/& as per PPA/25/ For Burgulla-II & Pottipadu Site The calibration is carried out for a measuring range i.e., CTR: 200/1-1A, PTR: 33kV/110V & Range: 3X63.5V, Ib:1A, Imax:2A with accuracy class 0.2s For Nszeeraabad Site The calibration is carried out for a measuring range i.e., CTR: 500/1A, PTR: 132kV/110V & Range: 3X63.5V, Ib:1A, Imax:2A with accuracy class 0.2s For Apsari-I & Apsari-II Site	

		The calibration is carried out for a measuring range i.e., CTR: 600A/1A, PTR: 220kV/110V & Range: 3X63.5V, Ib:1A, Imax:2A with accuracy class 0.2s For Bhesad & Nidhi Site The calibration is carried out for a measuring range i.e., Range: 3X63.5V, Ib:1A, Imax:2A with accuracy class 0.2s								
	How were the values in the monitoring report verified?	Cumulative value of EG_{PJ,y} for entire monitoring period 01-April-2022 to 30-June-2023 (inclusive of both dates) is reported in the monitoring report/1/, and monthly values in the ER calculation sheet/2/ in MWh. The monthly values were verified from the JMRs/B-Forms/Credit Notes/27/ and cross checked from invoices/28/ thus found to be consistent. Value of this parameter for the current monitoring period was verified as 1,008,781.84 MWh. <table><tr><th>Year</th><th>Net Electricity Generation (MWh)</th></tr><tr><td>2021</td><td>597,615.56</td></tr><tr><td>2022</td><td>411,166.38</td></tr><tr><td>Total</td><td>1,008,781.8 (ROUNDDOWN VALUE)</td></tr></table>	Year	Net Electricity Generation (MWh)	2021	597,615.56	2022	411,166.38	Total	1,008,781.8 (ROUNDDOWN VALUE)
	Year	Net Electricity Generation (MWh)								
	2021	597,615.56								
2022	411,166.38									
Total	1,008,781.8 (ROUNDDOWN VALUE)									
If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{PJ,y} in JMRs/Credit Notes/B-Forms26/ were further cross checked with the monthly invoices /28/ raised by the PP to DISCOM which is found to be consistent with the PPA/25/.									
Does the data management ensure correct transfer of data and reporting of emission reductions and are	Personnel interview/37/ with the project stakeholder of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.									

	necessary QA/QC processes in place?	Every month these meter readings will be recorded by respective entities at all the project implemented states by the representative and plant personnel. The meters at the substation will be two-way meters and will be in the custody of State Electricity Boarding. The quantity of net electricity supplied is cross-verified from the invoice raised on State Electricity Boarding by the project proponent.
	In case project proponents have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CL#02 & CAR#02 were raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the project. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

Calibration of meters/26/:

During the verification assessment of the project activity, accuracy of all the metering have been checked and found appropriate by assessment team during hybrid (onsite + remote) site visit /3/. The installation data and working conditions of the meters were checked with the calibration certificates/36/ and were found to be satisfactory as compared to the provision of calibration/testing frequency, prescribed under the VCS Joint PD & MR/3/. The meters is under purview of state electricity board and PP do not have any control on it. The calibration of all the meters will be undertaken at required intervals (CEA order dated 17-March-2006; which prescribes under the para 18(b) that "all the meters shall be tested once in five years." Thus,

validity of the calibration is considered for five years) and faulty meters will be duly replaced immediately.

Details of meters are provided in below table:

Table No: 15 Meter Calibration Details:

The main meter and Check meter details of Nazeerabad Site are as follows:

	Main meter	Check meter
Make	L & T	L & T
Meter no.	0018128682	0018128666
Accuracy class	0.2 s	0.2s
Calibration date	10-March-2021	10-March-2021
Calibration Due date	09-March-2026	09-March-2026
Calibration frequency	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.	

The Main meter and Check meter details of Pottipadu Site are as follows:

For 65.1 MW			
PPD-06 (21 MW)			
	Main meter	Check meter	Backup meter
Make	Secure	Secure	Secure
Meter no	XC559930	XC559931	XC559924
Accuracy class	0.2 s	0.2s	0.2s
Calibration date	24-December-2020	24-December-2020	24-December-2020
Calibration Due date	23-December-2025	23-December-2025	23-December-2025
Calibration frequency	5 years	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.		
PPD-40			
	Main meter	Check meter	Backup meter
Make	Secure	Secure	Secure

Meter no	XC559921	XC559922	XC559923
Accuracy class	0.2 s	0.2s	0.2s
Calibration date	24-December-2020	24-December-2020	24-December-2020
Calibration Due date	23-December-2025	23-December-2025	23-December-2025
Calibration frequency	5 years	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.		
PPD-35			
	Main meter	Check meter	Backup meter
Make	Secure	Secure	Secure
Meter no	XC559932	XC559933	XC559934
Accuracy class	0.2 s	0.2s	0.2s
Calibration date	21-December-2020	21-December-2020	21-December-2020
Calibration Due date	20-December-2025	20-December-2025	20-December-2025
Calibration frequency	5 years	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.		

For 39.9 MW			
Feeder 01			
	Main meter	Check meter	Backup meter
Make	Secure	Secure	Secure
Meter no	13720861	13720862	13720863
Accuracy class	0.2 s	0.2s	0.2s
Calibration date	21-December-2020	21-December-2020	21-December-2020

Calibration Due date	20-December-2025	20-December-2025	20-December-2025
Calibration frequency	5 years	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.		
Feeder 02			
	Main meter	Check meter	Backup meter
Make	Secure	Secure	Secure
Meter no	13720897	13720868	13720872
Accuracy class	0.2 s	0.2s	0.2s
Calibration date	21-December-2020	21-December-2020	21-December-2020
Calibration Due date	20-December-2025	20-December-2025	20-December-2025
Calibration frequency	5 years	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.		

The Main meter and Check meter details of Nidhi Site are as follows:

Feeder 09		
	Main meter	Check meter
Make	Secure	Secure
Meter no	RJB96159	RJB96160
Accuracy class	0.2 s	0.2s
Calibration date	10-April-2021	10-April-2021
Calibration Due date	09-April-2026	09-April-2026
Calibration frequency	5 years	5 years
Calibration Agency	Darsh Calibrations Pvt Ltd	
Feeder 10		
	Main meter	Check meter
Make	Secure	Secure

Meter no	RJB96157	RJB96158
Accuracy class	0.2 s	0.2s
Calibration date	10-April-2021	10-April-2021
Calibration Due date	09-April-2026	09-April-2026
Calibration frequency	5 years	5 years
Calibration Agency	Darsh Calibrations Pvt Ltd	

The Main meter and Check meter details of Bhesada Site are as follows:

Feeder 02		
	Main meter	Check meter
Make	Secure	Secure
Meter no	RJB 78188	RJB 78189
Accuracy class	0.2 s	0.2s
Calibration date	21-February-2021	21-February-2021
Calibration Due date	20-February-2026	20-February-2026
Calibration frequency	5 years	5 years
Calibration Agency	Darsh Calibrations Pvt. Ltd	
Feeder 03		
	Main meter	Check meter
Make	Secure	Secure
Meter no	RJB 78194	RJB 78200
Accuracy class	0.2 s	0.2s
Calibration date	21-February-2021	21-February-2021
Calibration Due date	20-February-2026	20-February-2026
Calibration frequency	5 years	5 years
Calibration Agency	Darsh Calibrations Pvt. Ltd	
Feeder 04		
	Main meter	Check meter
Make	Secure	Secure

Meter no	RJB 78201	RJB 78203
Accuracy class	0.2 s	0.2s
Calibration date	21-February-2021	21-February-2021
Calibration Due date	20-February-2026	20-February-2026
Calibration frequency	5 years	5 years
Calibration Agency	Darsh Calibrations Pvt. Ltd	

The Main meter and Check meter details of Aspari Site are as follows:

Apsari-I		
	Main meter	Check meter
Make	Secure	Secure
Meter no	APX01010	APX01011
Accuracy class	0.2 s	0.2s
Calibration date	18-December-2020	18-December-2020
Calibration Due date	17-December-2025	17-December-2025
Calibration frequency	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.	

Apsari-II		
	Main meter	Check meter
Make	Secure	Secure
Meter no	APX01012	APX01013
Accuracy class	0.2 s	0.2s
Calibration date	18-December-2020	18-December-2020
Calibration Due date	17-December-2025	17-December-2025
Calibration frequency	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.	

The Main meter and Check meter details of Burgulla Site are as follows:

Burgulla-II		
	Main meter	Check meter
Make	Secure	Secure
Meter no	APX017021	APX01022
Accuracy class	0.2 s	0.2s
Calibration date	22-December-2020	22-December-2020
Calibration Due date	21-December-2025	21-December-2025
Calibration frequency	5 years	5 years
Calibration Agency	Yathva Energy Solutions Pvt Ltd.	

The Main meter and Check meter details of Nipaniya Site are as follows:

Nipaniya		
	Main meter	Check meter
Make	Secure	Secure
Meter no	MPC70479	MPC70480
Accuracy class	0.2 s	0.2s
Previous Calibration date	18-December-2020	18-December-2020
Calibration Due date	17-December-2025	17-December-2025
Calibration frequency	5 years	5 years
Calibration Agency	Marut-Shakti Energy India Limited	

Nipaniya		
	Main meter	Check meter
Make	Secure	Secure
Meter no	MPC70481	MPC70482
Accuracy class	0.2 s	0.2s
Previous Calibration date	18-December-2020	18-December-2020

Calibration Due date	17-December-2025	17-December-2025
Calibration frequency	5 years	5 years
Calibration Agency	Marut-Shakti Energy India Limited	

There are 253 WTGs and three feeders involved for the electricity import and export. The provision of calibration/testing frequency, prescribed under the VCS Joint PD & MR /3/. PP has considered CEA order dated 17-March-2006; which prescribes under the para 18(b)/22/ that "all the meters shall be tested once in five years." Thus, validity of the calibration is considered for five years. This is verified by assessment team from the Calibration certificates /26/ submitted by the PP. As per VCS Joint PD & MR "The project adheres to all the mandatory regulatory and statutory requirements at the state as well as national level & hence acceptable to VKU assessment team.

The energy meter calibration certificates/26/ are checked and found that the calibration details provided in the MR /1/ are correct. From the verification of above table, verification team also confirms that the energy meter calibrations are valid for the complete monitoring period i.e., from 01-April-2022 to 30-June-2023, including both the start and end dates.

The meters in use are two-way devices that measure both electricity import and export, providing the net electricity consumption data. According to the Power Purchase Agreements with the electricity distribution utility, Both meters function as two-way export-import meters, calculating both exported and imported electricity to the grid.

If the meters operate outside allowable limits, they will either be replaced or calibrated. When the main meter malfunctions, the consumption recorded by the backup meter is used. If both metering systems fail, malfunction details, timestamps, parameters, and load survey data will be retrieved from the main meter. The nature of the malfunction is then determined, and the recorded consumption in the main meter is adjusted accordingly.

Calculation of net electricity export to the grid by project activity WTG:

EG_{P,y} is taken as cumulated amount of net electricity generated by all WTGs installed in the bundled project activity.

For Bhesada site (Rajasthan)-

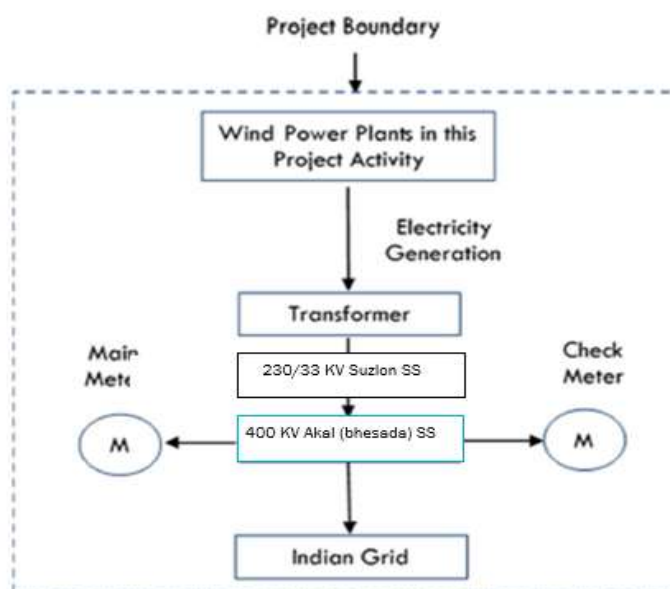
The voltage generated at WTG is 690 V and stepped to 33 KV. Further at pooling substation voltage is stepped up from 33kV to 220 KV. The export and import energy is measured continuously using Main and Check meters located at the 400 KV substations Akal (Bhesada) (meter Installed at 220kV line). Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings

taken for the respective project activity. The JMR is issued for 50.40 MW wind power project but the site in this project activity includes only 8.4 MW, hence the export and import values are apportioned for 8.4 MW using apportioning ratio 0.17(based on DGR readings and approved deviation 03).

Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated energy meter installed at 400 KV Akal (Bhesada) Substation.

It is also noted that apportioning procedure is under control of state electricity board and PP do not have any control on it. The available parameter to PP is the net electricity supplied to grid by the project activity and same parameter is mentioned as monitoring parameter. The Net electricity exported to the grid will be cross checked against the invoice raised by the PP towards the DISCOM.

Single line diagram for Bhesada site (Rajasthan)-



For Nidhi site (Rajasthan)-

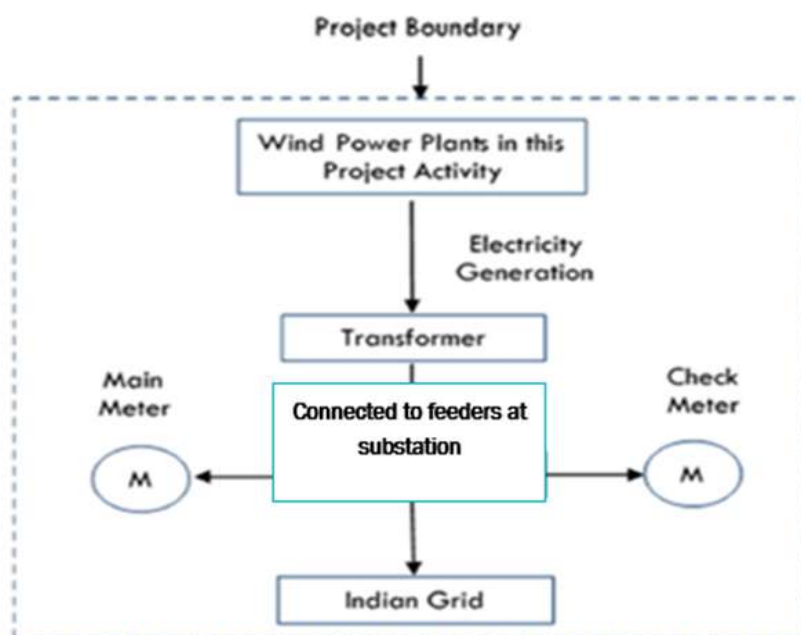
The WTGs are connected feeder wise at substation. The voltage generated at WTG is 690 kV and is stepped up to 33 kV and further stepped up to 220 kV at GSS Substation. The details for feeder wise connection are as follows.

Feeders	WTG Location
Feeder -9	NDH-27, NDH-28, NDH-29, NDH-30, NDH-31, NDH-32, NDH-33, NDH-34, NDH-35, NDH-36, NDH-37, NDH-38, NDH-39, NDH-44.

Feeder-10	NDH-01, NDH-02, NDH-03, NDH-04, NDH-05, NDH-06, NDH-07, NDH-21, NDH-22, NDH-23, NDH-24, NDH-25, NDH-26, NDH-08, NDH-09, NDH-10, NDH-11, NDH-12, NDH-16, NDH-17, NDH-18, NDH-19, NDH-20.
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The export and import energy is measured continuously using Main and Check meters located at the feeders at Nidhi 220 kV GSS substations (High Voltage Side i.e., 220kV line). Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity. In feeder 09 the generation from feeder 03 (23.8 MW) and feeder 04 (39.1 MW) is connected but the bifurcation for feeder 03 is provided in the JMR. Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated energy meter installed at the substation.

Single line diagram for Nidhi site (Rajasthan)-



For Nipaniya site (Madhya Pradesh)-

The voltage generated at hub is 690V and stepped up to 33 kV and then at the substation voltage is stepped up to 220 KV. The WTGs are connected feeder wise at substation. The details for feeder wise connection are as follows.

Feeders	WTG Location
Feeder -4	NPY P3-112, NPYP3-114, NPYP3-116, NPYP3-117, NPYP3-120

Feeder-6	NPYP3-119, NPYP3-124, NPYP3-127, NPYP3-128, NPYP3-154, NPYP3-157, NPYP58, NPYP59
Feeder-8	NPYP341, NPYP51

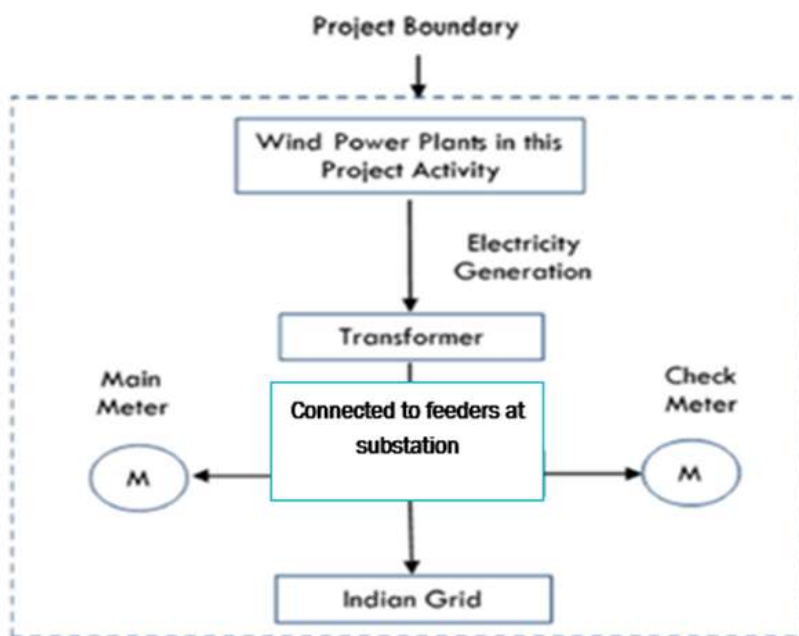
The export and import energy is measured continuously at high voltage end 220 kV using Main and Check meters located at the feeders at Nipaniya substations. Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity. Generation from WTGs of other project owner is provided in JMR along with WTG wise generation breakup.

The WTGs are connected feeder wise at substation. The details for feeder wise connection are as follows.

Feeders	WTG Location
Feeder -4	NPY P3-112, NPYP3-114, NPYP3-116, NPYP3-117, NPYP3-120
Feeder-6	NPYP3-119, NPYP3-124, NPYP3-127, NPYP3-128, NPYP3-154, NPYP3-157, NPYP58, NPYP59
Feeder-8	NPYP341, NPYP51

Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated energy meter installed at the substation.

Single line diagram for Niapaniya site (Madhya Pradesh)-

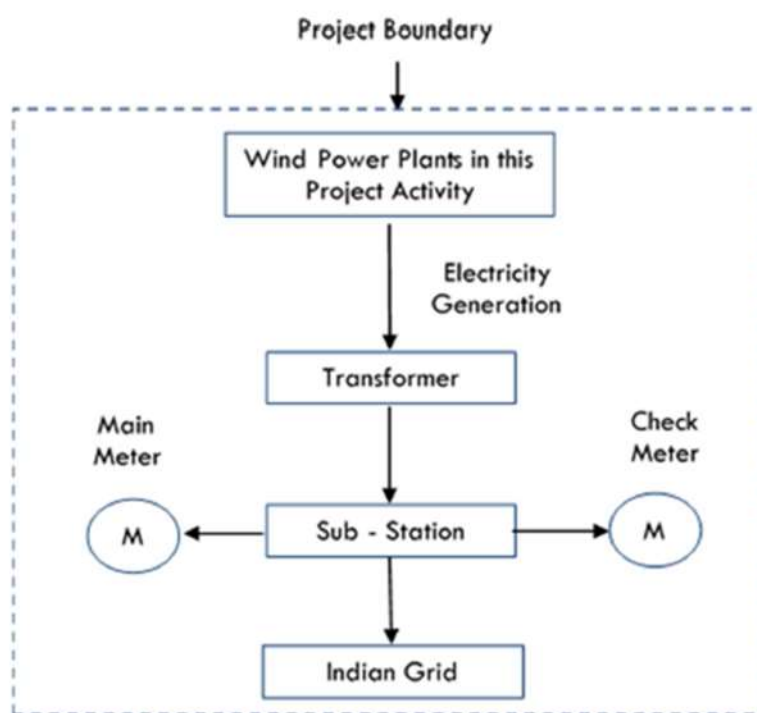


For Nazeerabad site (Telangana)-

The voltage generated at hub is 690V and stepped up to 33 kV and then at the Pargi substation voltage is further stepped up to 132 kV. The export and import energy is measured continuously using Main and Check meters located at the high voltage end of substations. Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity.

Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated energy meter installed at the substation.

Single line diagram for Nazeerabad site (Telangana)-



For Aspari-1 and Aspari-2 Project Sites (Andhra Pradesh)

The voltage generated at hub is 690V and stepped up to 33 kV and then at the substation voltage is stepped up to 220 kV. A number of WTGs connected in a particular feeder.

Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated energy meter installed at the substation. A Joint Meter Reading combined for project capacity is taken by the representatives of PP and Andhra Pradesh Power Transmission Corporation Limited at the high voltage side 220 KV of the step-up transformer installed at the substation at a particular date.

The feeder wise WTG connection is as follows

Aspari-1

Feeder	WTG ID
Feeder No 1	ASP-005, ASP-006, ASP-007, ASP-008, ASP-001, ASP-002, ASP-003, ASP-93, ASP-94, ASP-95, ASP-139.
Feeder No.2	ASP-009, ASP-010, ASP-011, ASP-012, ASP-013, ASP-014, ASP-015, ASP-016, ASP-017, ASP-025, ASP-026, ASP-027, ASP-028.
Feeder No 4	ASP-018, ASP-019, ASP-021, ASP-022, ASP-023, ASP-024, ASP-029, ASP-061, ASP-062, ASP-063, ASP-064, ASP-065, ASP-066, ASP-087.
Feeder No. 5	ASP-035, ASP-036, ASP-037, ASP-038, ASP-039, ASP-042, ASP-043, ASP-044.
Feeder No.3	ASP-030, ASP-031, ASP-032, ASP-033, ASP-088, ASP-089, ASP-090, ASP-091, ASP-092.

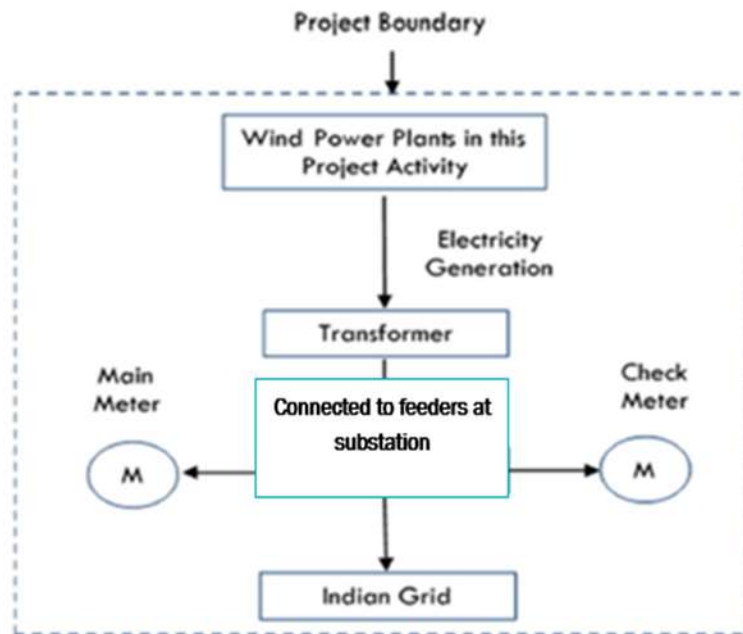
Aspari-2

Feeder	WTG ID
Feeder no 8	ASP-040, ASP-071, ASP-072, ASP-073, ASP-074, ASP-0130, ASP-0131, ASP-0132, ASP-0138.
Feeder no 9	ASP-046, ASP-047, ASP-048, ASP-050, ASP-052, ASP-053, ASP-054, ASP-055.
Feeder no 10	ASP-081, ASP-082, ASP-083, ASP-084, ASP-086.

In case the main metering system is not in service, then the check metering system is be used until the main system is back to service. Meter reading is jointly signed by both the representatives.

PP raises a monthly energy bill/statement based on the JMR at the end of each calendar month and the payment by State Electricity Board is done on this basis. The billing and payment records are maintained by the PP.

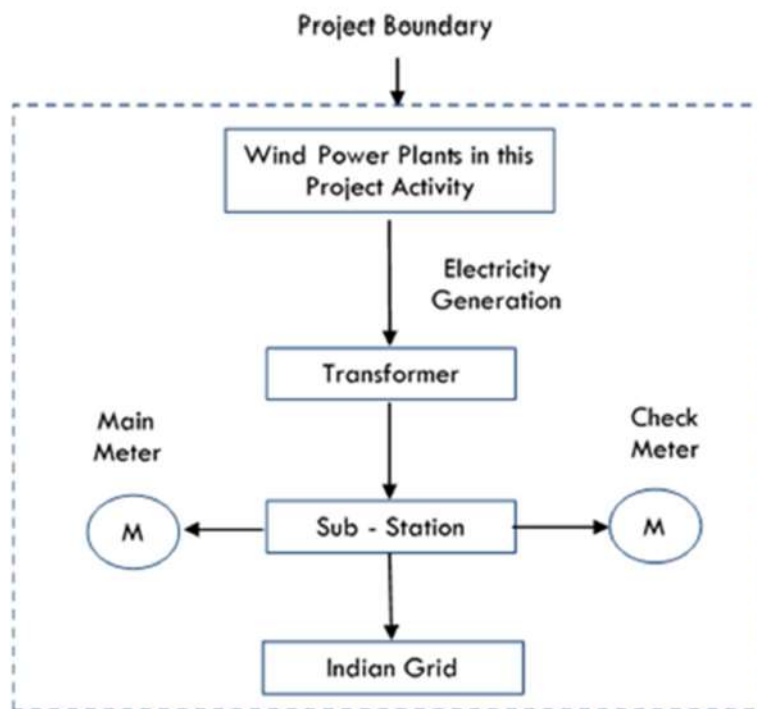
Single line diagram for Aspari-1 and Aspari-2 Project Sites (Andhra Pradesh)



For Burgula-II Project Site (Andhra Pradesh)

The voltage generated at hub is 690V and stepped up to 11 kV and then at the Racharia substation voltage is stepped up to 33 kV. The export and import energy is measured continuously at high voltage end of substation using Main and Check meters located at the feeder 4 at Racherla substations. Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity.

Single line diagram for Burgula-II Project Site (Andhra Pradesh)-



For Pottipadu Project Site (Andhra Pradesh)

The voltage generated at hub is 690V and stepped up to 33 kV and then at the pooling substation voltage is further stepped up to 220 kV. The export and import energy is measured continuously using above mentioned Main and Check meters located at the feeders at high voltage end 220 kV at respective substations as mentioned above. Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity. Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity.

The feeder wise details are given below-

33/220 KV Pooling substation, Vajrakarur (65.1 MW)

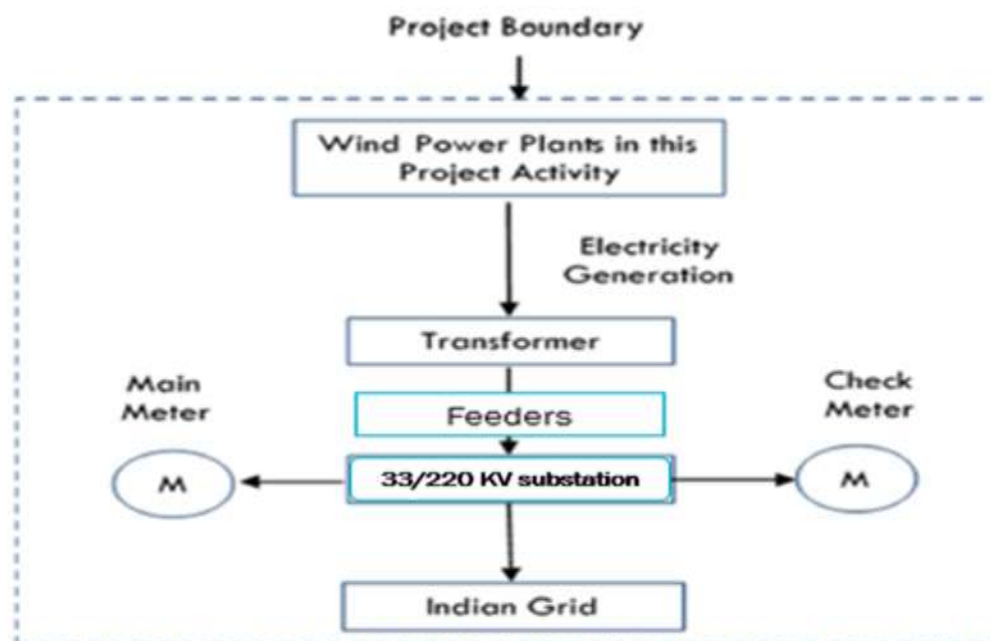
Feeder	WTG ids
Feeder 11	PPD001, PPD002, PPD005, PPD006, PPD011, PPD012, PPD013, PPD014, PPD015, PPD016
Feeder 12	PPD027, PPD028, PPD029, PPD030, PPD031, PPD032, PPD033, PPD034, PPD035, PPD044
Feeder 13	PPD038, PPD039, PPD040, PPD060, PPD061, PPD062, PPD063, PPD064, PPD073, PPD074, PPD075

The voltage generated at hub is 690V and stepped up to 33 kV and then at the government substation voltage is further stepped up to 132 kV. The export and import energy is measured continuously using above mentioned Main and Check meters located at the feeders at high voltage end 132 kV at respective substations as mentioned below. Readings of meters are taken on monthly basis by authorized officer of State Electricity Board EB in the presence of PP or representative of PP. Based on the Meter Reading Statement, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity. Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated energy meter installed at the substation

132/33 KV Guntakal Govt SS.Direct connected (39.9 MW)

Feeder	WTG ids
Suzlon Feeder -1	PPD052, PPD055, PPD056, PPD057, PPD053, PPD45, PPD46, PPD47, PPD58
Suzlon Feeder-2	PPD76, PPD77, PPD78, PPD81, PPD82, PPD84, PPD85, PPD049, PPD050, PPD054

Single line diagram for Pottipadu Project Site (Andhra Pradesh)-



Apportioning Procedure followed:

In case the dates of a particular monitoring period do not match with the dates of the billing cycle, the net electricity exported to the grid would be calculated from:

- In the event when the individual verification period dates and billing cycle dates of the various WTGs in the project activity do not coincide, then the monitoring procedure is-

X : Sum of generation during partial days of the month recorded at controller meter (kwh) source – Electronic / Manual Log Book

Y : Total generation during the month recorded at controller meter (kwh/month)

$Z = X/Y$: Ratio

B : Net Energy export by the WTG as per Monthly Report on Generation and Consumption

$Z*B$: Generation of partial days for calculating emission reduction (kwh)

Daily data at the project sites is collected electronically, while monthly data is documented in hard copies. The Project Proponent is responsible for maintaining comprehensive and precise records of all this data as part of the monitoring process. These records must be retained for a minimum of 2 years after the end of the crediting period or the last issuance of Verified Carbon Units (VCUs) for the project activity, whichever comes later. This practice ensures the availability of historical project data for compliance and auditing purposes.

The registered VCS Project Description (PD) version 03 dated 20-December-2017/3/ & MR /1/ and site audit observations confirm that the metering equipment are sealed and maintained by the respective State utilities. Each feeder has a dedicated set of main and check meter to record frequency quantities of active and reactive energy for energy exported to and imported from the grid during settlement periods.

During hybrid (onsite + remote) site visit at all the plant sites /38/ the verification team checked all the meters and confirmed that the meters were working satisfactorily. Also, the calibration of meters is completely under purview of State utility and PP has no control over the same as confirmed through interviews of site personnel /37/ and PPA /25/.

Hence it can be concluded that the approach followed by the PP is conservative and in line with the guidelines provided under paragraph 3.4.2 of Validation and verification manual version 3.2/8/.

The assessment team has verified the JMRs/B-Forms/Credit Notes /27/ issued by DISCOM to PP & Invoices/28/issued to DISCOM identified in the PPA /25/ by Mytrah Energy (India) Pvt. Ltd. confirmed that only the data recorded through main meters is used to calculate net electricity supplied to the grid consequently for ER calculations recorded in ER sheet /2/.

In view of the above discussion the VKU assessment team is able to confirm that evidence used to determine the GHG reductions and removals are sufficient and appropriate with respect to quality and quantity.

GHG Calculations:

The emission reduction as per the applied methodology equals the baseline emissions (project emissions and leakage emissions for such project activities is considered zero). The formula provided for the calculation of baseline emissions is:

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

Where:

BE_y	=	Baseline emissions in year y (tCO ₂ e/yr)
$EG_{PJ,y}$	=	Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the VCS project activity in year y (MWh/yr)
$EF_{grid,CM,y}$	=	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” (t CO ₂ /MWh)

Calculation of $EG_{PJ,y}$

The project activity being a greenfield project,

And

$$EF_{Co2} = EF_{GridCM,y}$$

EF_{Co2}	=	CO ₂ Emission Factor in year y (tCO ₂ e/MWh)
$EF_{GridCM,y}$	=	Combined margin CO ₂ Emission Factor of Indian Grid (tCO ₂ e/MWh)

Parameter	Unit	Value
$EG_{PJ,y}$	MW	1,008,781.8
EF_{Co2}	tCO ₂ e	0.9653
BE_y	tCO ₂ e	1,008,781.8 * 0.9653
	=	973,770 (Round down value)
PE_y	tCO ₂ e	0
LE_y	tCO ₂ e	0
Net GHG emission reductions or removals	tCO ₂ e	973,770

The verification team attests to the correctness of the formulas and methodologies used to compute baseline emissions. The applied default values, emission factors, and assumptions in the calculations are all reasonable. The assumptions, emission factors and default values that were applied in the calculations are justified. The actual emission reduction achieved during the current monitoring period are 15% lower than the estimated ERs in the registered VCS Joint PD & MR/3/. We as VKU Assessment/Verification Team accepted this as this is mainly due to low wind flow, grid unavailability, low PLF & high scheduled & unscheduled breakdown as verified and traced through evidences and calculative computation by VKU assessment team. During desk review, Hybrid (onsite + remote) site visit and interview with site personnel confirmed the reasons of lower emissions reduction as compared with registered VCS Joint PD & MR Version 03 dated 20-December-2017/3/ & hence acceptable to VKU.

Hence the 15% actual lower emission reduction achieved during the current monitoring period neither affects additionality nor there is any deviation from the registered monitoring plan, which was verified by the VKU Assessment/Verification Team during Hybrid (onsite + remote) site visit.

The electricity produced by a wind plant relies on the amount of wind passing through it, and changes in wind availability can have an impact on its output. The flow of wind is a natural phenomenon and nobody have control over it, which can, in turn, affect the amount of electricity generated. The fluctuation in the wind flow is not under the control of the project proponent. Hence, it is acceptable to the VKU Assessment/Verification Team.

All the data were made available to the assessment team by PP during site visit/38/ and as supporting evidences which have been monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described above.

The verification team has checked and confirmed the emission reduction calculations in the spreadsheet and found to be accurate. The monitoring report/1/ is supported by emission reduction spreadsheet/2/. The consistency and formula were verified and found to be accurate. VKU is of the opinion that this method of calculation of emission reductions is accurate and results in conservative estimation of emission reduction and is in line with the applicable VCS requirements set out in section 3.15 of VCS Standard version 4.5 and that the verification of the GHG statement was conducted in accordance with ISO 14064-3; 2019.

4.6 Non-Permanence Risk Analysis

Since the project is not an AFOLU project hence this section is not applicable.

5 VERIFICATION OPINION

VKU Certification Pvt. Ltd. has performed the seventh verification of the first crediting period (30-December-2015 to 29-December-2025 which is inclusive of both dates) for the project activity “Bundled Wind Power Project by Mytrah Group” in India, VCS Registry Project ID 1728, for the monitoring period 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates), with regard to the relevant requirements for VCS activities. The project proponents of the “Bundled Wind Power Project by Mytrah Group” amounts to **973,770** tCO_{2e} of carbon dioxide equivalent (tCO_{2e}). These reported reductions have been assessed in accordance with the relevant requirements outlined in the VCS Standard, version 4.5/07/.

The project proponents of the “Bundled Wind Power Project by Mytrah Group” project is responsible for:

- The preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered VCS Joint PD & MR version 3.0 of 20-December-2017 /3/
- The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project.

It is the responsibility of VKU to express an independent verification opinion about the project’s conformity with the requirements of VCS Standard Version 4.5/10/ and GHG program applied, on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by a Hybrid (Onsite + remote) site assessment, VKU can confirm that:

- The project has been implemented and operated as per the registered VCS Joint PD & MR version 3.0 of 20-December-2017 /3/
- The monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Standard Version 4.5/10/ requirements;
- The monitoring is in place as per the applied baseline and monitoring methodology;
- The monitoring plan in the registered VCS Joint PD & MR version 3.0 of 20-December-2017 /3/ is as per the applied baseline and monitoring methodology.

VKU Certification verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. VKU Certification planned and performed the verification by obtaining evidence and other information and explanations that VKU Certification considered necessary to give a **reasonable assurance** that reported GHG emission reductions are fairly stated.

As per VCS Standard Version 4.5, clause 4.1.23, 4.1.24 and 4.1.25, VKU is of opinion that that GHG emission reduction stated in the **monitoring report version 4.0 of 02-April-2024** for the

“Bundled Wind Power Project by Mytrah Group” in India for the period 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates) *are fairly and correctly stated.*

Table No 17: Opinion/Conclusion by Validation-Verification Body

Opinion	Final Documents	Monitoring Period	Emission Reductions achieved	Remarks
Positive opinion ☒ Negative Opinion ☐ Adverse Opinion ☐ Unmodified Opinion ☒ Modified Opinion ☐	Monitoring Report Version 4.0 of 02-April–2024 Emission Reduction Sheet Version 2.0 of 30-October-2023	01-April-2022 to 30-June-2023 (Inclusive of both the days)	973,770 tCO₂e	The GHG emission reductions are calculated on the basis of approved methodology ACM0002: Grid-connected electricity generation from renewable sources --- Version 17.0 /10/ and the monitoring plan included in the registered VCS Joint PD & MR /3/
Hence VKU is able to certify that the emission reduction from the project during the current monitoring period 01-April-2022 to 30-June-2023 (Inclusive of both start and end dates) amounts to 973,770 tCO₂e assessed in line with the applicable VCS requirements set out in section 3.15 of VCS Standard version 4.5/10/ The VVB hereby issues a resolutely <i>positive and unmodified opinion</i> meticulously drafted in strict accordance with ISO 14064-3:2019, /42/ Section 09, and the precise provisions of Clause 9.7.1.6 & 9.7.2 of ISO 14065:2020. /43/ This opinion stands in full alignment with the exacting requirements delineated in ISO/IEC 17029:2019, Section 9.7./44/ Our verification process provides a robust and <i>reasonable level of assurance</i> regarding the veracity of the reported GHG emission reduction data. This data is devoid of any material misstatements and is steadfastly supported by the evidence furnished by the Project Proponent (PP), comprehensively presented in <u>Table 04</u> of this report.				

Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

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)
Vintage 2022 (01-April-2022 to 31-December-2022)	576,875	0	0	576,875
Vintage 2023 (01-January-2023 to 30-June-2023)	396,895	0	0	396,895
Total	973,770	0	0	973,770

Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

Year	Ex-ante emissions reductions/removals	Achieved emissions reductions/removals	Percent difference	Justification for the difference
Verification period: 01-April-2022 to 31-December-2022	694,127.12	576,875	-17%	The actual Emission Reductions (ER) achieved during the monitoring period are lower than the originally estimated ER. This discrepancy is primarily attributed to a lower Plant Load Factor (PLF)
Verification period: 01-January-2023 to 30-June-2023	456,861.85	396,895	-13%	

Verification period: 01-April-2022 to 30-June-2023	1,150,989	973,770	-15%	experienced during the current monitoring period. Unforeseen factors such as wind unavailability and routine maintenance led to unexpected downtime, resulting in a reduced overall PLF for the period, which in turn impacted the expected emissions reductions.
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APPENDIX A: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
ER	Emission Reductions
PPA	Energy Wheeling Agreement
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PD	Project Design Document
PE	Project Emission
PP(s)	Project Proponent(s)
PPA	Power Wheeling Agreement

PSA	Power Sale Agreement
Ref.	Document Reference
SLDC	State Load Dispatch Centre
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCU	Verified Carbon Unit
VKU	VKU Certification Ltd.
VVS	Validation and Verification Standard

APPENDIX B: AUDIT FINDINGS

CL: Clarification Request_02

CAR: Corrective Action Request_03

FAR: Forward Action Request_00

Description of Clarification Requests (CLs) raised by VVB:

Type	Date	04-October-2023
CL#01	Reference	Section of Verification Protocol 01/DR/OSV/AT Section of Verification Protocol 02/DR/OSV/AT
Description of the Non-Conformance		
1) In Section 1.1 of MR: The assessment team found the dates inconsistent with the PD. 2) In Section 1.5 of MR: PP is to provide commissioning certificates to the assessment team to verify the commissioning date of the project. 3) In Section 1.7 of MR: Burgula-II project site location was found inconsistent with the registered VCS Joint PD&MR. Kindly Clarify. 4) In Section 1.11 of MR: Sustainable Development Contributions For SDG 7.2: What is this SDG (7.2) indicating to increase? For SDG 13.0: What is this SDG (13.0) indicating to increase? 5) In Section 2.1 of MR: PP provide the reference of the mentioned document. 6) In Section 2.2 of MR: Is the grievance register available separately on individual sites of the project activity?		
1 st Response from PP	Date	11-October-2023
1) Section 1.1 of Revised MR 2.0 the dates are made consistent with the PD. 2) Commissioning certificates are submitted herewith 3) Burgula-II project site location is made consistent with the registered VCS Joint PD&MR 4) For SDG 7.2:		

Implemented activities to increase renewable energy share in the total final energy consumption

For SDG 13.0:

Implemented activities to increase tonnes of greenhouse gas emissions avoided

5) The reference link is provided in revised MR Version 2.0.

6) Grievance register is maintained separately on every site

1stAssessment by Audit Team	Status	Closed	Date	16-November-2023
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- 1) **In Section 1.1 of MR:** PP has corrected the inconsistent dates in the updated version of MR. **(Closed)**
- 2) **In Section 1.5 of MR:** Commissioning certificates are submitted to the assessment team and the date of commissioning is now consistent, hence accepted by the verification team. **(Closed)**
- 3) **In Section 1.7 of MR:** PP has made required changes in the Burgula-II project site location and is found consistent with the registered VCS Joint PD&MR. **(Closed)**
- 4) **In Section 1.11 of MR:** Sustainable Development Contributions: PP has completed the incomplete sentences in the updated MR version 2.0. **(Closed)**
- 5) **In Section 2.1 of MR:** PP has incorporated the reference link of the document mentioned in section 2.1. **(Closed)**
- 6) **In Section 2.2 of MR:** PP has submitted a copy of grievance register for each project site separately. **(Closed)**

Hence CL#01 is Closed by the assessment team.

2ndResponse from PP	Date	DD-Month-YYYY
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2ndAssessment by Audit Team	Status	Open/Closed	Date	DD-Month-YYYY
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Type	Date	04-October-2023
CL#02	Reference	Section 03 of Verification Protocol/DR/OSV/AT

		Section 04 of Verification Protocol /DR/OSV/AT Section 05 of Verification Protocol/DR/OSV/AT
Description of the Non-Conformance		
1) In Section 3.1 of MR: PP has not described the implementation status of the project activity, which must include information about the operation of the project activity during this monitoring period, including any information on events that may impact the GHG emission reductions or removals and monitoring. This is not as per the requirements of the MR template. 2) In Section 3.1 of MR: Found inconsistent with the registered Joint PD and MR. Kindly Clarify. 3) In Section 3.1 of MR: The assessment team is unable to find Appendix II in the MR. 4) In Section 3.2.2 of MR: Is there any deviation requested during the current monitoring period? 5) In Section 4.2 of MR: The sentence seems to be Incomplete. Kindly complete the sentence. 6) In Section 4.3 of MR: PP to inculcate SLD for all the project sites for better clarification. 7) In Section 4.3 of MR: The verification team could not trace any QA/QC procedure in the Monitoring plan as per the requirements of VCS MR Template version 4.2. Kindly Clarify. 8) In Section 4.3 of MR: During Remote inspection Verification team found that sites of the bundle within the project activity have different procedures for energy measurement, like apportioning in Nipanya site where two meter readings are taken which is used to generate the invoices. Kindly clarify 9) In ER Sheet: A. Assessment team could not find Supporting documents to verify values for 8.4MW plant (Bhesada Site). B. For Nipaniya Site: the value of export and net export is found to be similar in the supporting documents. C. For Nazeerabad Site: Value of Net Export units in Invoices is higher than values of JMR. Clarify		
1stResponse from PP	Date	11-October-2023
1) In Section 3.1 of revised MR version 2.0 details for the implementation status of the project activity is included. 2) Revised MR Version 2.0 is made consistent with revised MR Version 2.0. 3) Appendix 2.0 is added in revised MR Version 2.0 4) No deviation is requested during current monitoring period. 5) The sentence is completed in revised MR Version 2.0. 6) In Section 4.3 of revised MR version 2.0 SLD is included		

- 7) In Section 4.3 of revised MR 2.0 QA/QC procedure is included in the Monitoring plan as per the requirements of VCS MR Template version 4.2.
- 8) In Section 4.3 of revised MR 2.0 the monitoring and monitoring procedure is added
- 9) In ER Sheet:
- A. Supporting document (DGR) is submitted herewith to verify generation of 8.4MW plant (Bhesada Site).
- B. JMR (supporting document) is provided by state utility whereas for ER calculation Export-Import= Net generation is used, hence it is acceptable
- C. For Nazeerabad Site: Value of Net Export units in Invoice does **not vary much with values of JMR. However for ER calculation conservative value is taken.**

1 st Assessment by Audit Team	Status	Closed	Date	16-November-2023
1) In Section 3.1 of MR: PP has included details for the implementation status of the project activity in the updated version of MR. (Closed) 2) In Section 3.1 of MR: The assessment team confirmed that PP has made necessary changes in the MR for the current monitoring period. (Closed) 3) In Section 3.1 of MR: Appendix 2 has been added in revised MR Version 2.0. 4) In Section 3.2.2 of MR: PP has confirmed that no deviation is requested during the current monitoring period. (Closed) 5) In Section 4.2 of MR: PP has completed the incomplete sentence in the updated version of the MR. (Closed) 6) In Section 4.3 of MR: PP has inculcated SLD for all the project sites in the updated version of MR. (Closed) 7) In Section 4.3 of MR: The verification team traces QA/QC procedure in the Monitoring plan as per the requirements of VCS MR Template version 4.2 as this section is updated by the PP in the modified and updated version of MR. (Closed) 8) In Section 4.3 of MR: PP has clarified and added the monitoring and monitoring procedures in the updated version of MR. (Closed) 9) In ER Sheet: a. PP has submitted supporting documents to the Assessment team for data verification for the 8.4MW plant (Bhesada Site). (Closed) b. PP has submitted supporting documents (JMR) for the Nipaniya Site provided by state utility whereas for ER calculation Export-Import= Net generation and it is found acceptable by the assessment team. (Closed) c. PP has taken a conservative value for Nazeerabad Site: as the value of Net Export in the JMR does not vary much with the values of invoices. (Closed) Hence CL#02 is Closed by the assessment team.				
2 nd Response from PP	Date	DD-Month-YYYY		
2 nd Assessment by Audit Team	Status	Open/Closed	Date	DD-Month-YYYY



Description of Corrective Action Requests (CARs) raised by VVB:

Type	Date	04-October-2023
CAR#01	Reference	Section 01 of Verification Protocol /DR/OSV/AT
Description of the Non-Conformance		
1) On the title page of MR: The assessment team could not trace down any page number throughout the MR and this is tampering of the template. 2) On the title page of MR: PP to update the formatting as per the requirements of VCS MR Template version 4.2, make it consistent throughout the report, and add the page number throughout the report. 3) In Section 1.1 of MR: PP needs to mention the technologies/ measures associated with the process and equipment in the MR as per section 1.1 of MR template version 4.2. 4) In Section 1.1 of MR: As per the specific guidelines mentioned in VCS MR template version 4.2 section 1.1. The inclusivity of the implementation dates (e.g., dates of construction and continued operation period is not mentioned in the document. 5) In Section 1.1 of MR: PP needs to calculate the duration of verification correctly as the assessment team found the duration inconsistent during the desk review. 6) In Section 1.1 of MR: PP needs to recalculate the duration of previous verifications as it is found incorrect when calculated separately. 7) In Section 1.2 of MR: As mentioned in PD version 03 the description of the bundled project needs to be confirmed by PP. 8) In Section 1.9 of MR: PP to update this section as per requirements of section 3.23 of VCS Standard Version 4.5. And also provide a declaration document for the same. 9) In Section 1.10 of MR: PP to update this section as per requirements of section 3.24 of VCS Standard Version 4.5. And also provide a declaration document for the same. 10) In Section 2.2 of MR: PP needs to specify the measures taken at all the project sites to comply with the requirements of VCS Standard version 4.5.		
1stResponse from PP	Date	11-October-2023
1) Page number is added in revised MR Version 2.0 2) On the title page of revised MR version 2.0 formatting is done as per the requirements of VCS MR Template version 4.2, and add the page number is also added. 3) In Section 1.1 of revised MR version 2.0 the technologies/ measures associated with the process and equipment is added 4) In Section 1.1 of revised MR version 2.0, required details are added. 5) In Section 1.1 of revised MR version 2.0 the duration of verification is corrected. 6) In Section 1.1 of revised MR version 2.0 the duration of previous verifications is corrected.		

- 7) In Section 1.2 of revised MR version 2.0 the description of the bundled project needs is confirmed by PP.
- 8) In Section 1.9 of revised MR version 2.0 section is updated as per requirements of section 3.23 of VCS Standard Version 4.5. and declaration document for the same is submitted .
- 9) In Section 1.10 of revised MR version 2.0 section is updated as per requirements of section 3.23 of VCS Standard Version 4.5. and declaration document for the same is submitted
- 10) In Section 2.2 of revised MR version 2.0 the measures taken at all the project sites to comply with the requirements of VCS Standard version 4.5 is added.

1stAssessment by Audit Team	Status	Closed	Date	16-November-2023
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- 1) **On the title page of MR:** The assessment team confirmed that the page number is added throughout the updated version of MR i.e. version 2.0 of MR. **(Closed)**
- 2) **On the title page of MR:** PP has updated the formatting as per the requirements of VCS MR Template version 4.2, and made it consistent throughout the report and page numbers are also added in the updated version of MR. **(Closed)**
- 3) **In Section 1.1 of MR:** PP has mentioned the technologies/ measures associated with the process and equipment in the MR version 2.0 as per section 1.1 of MR template version 4.2. **(Closed)**
- 4) **In Section 1.1 of MR:** PP has added the inclusivity of the implementation dates (e.g. dates of construction and continued operation period in version 2.0 of MR as per the specific guidelines mentioned in VCS MR template version 4.2 section 1.1. **(Closed)**
- 5) **In Section 1.1 of MR:** PP has modified the calculation of the duration of verification correctly. **(Closed)**
- 6) **In Section 1.1 of MR:** PP has updated and recalculated the duration of previous verifications and it is found correct when calculated separately by the assessment team. **(Closed)**
- 7) **In Section 1.2 of MR:** The PP has updated and justified the description of the bundled project in Section 1.2 of revised MR version 2.0. **(Closed)**
- 8) **In Section 1.9 of MR:** PP has updated this section as per requirements of section 3.23 of VCS Standard Version 4.5. And also provided a declaration document for the same. **(Closed)**
- 9) **In Section 1.10 of MR:** PP has updated this section as per requirements of section 3.24 of VCS Standard Version 4.5. And also provided a declaration document for the same. **(Closed)**
- 10) **In Section 2.2 of MR:** PP has specified the measures taken at all the project sites and complied with the requirements of VCS Standard version 4.5. **(Closed)**

Hence CAR#01 is Closed by the assessment team.

2 nd Response from PP			Date	DD-Month-YYYY
2 nd Assessment by Audit Team	Status	Open/Closed	Date	DD-Month-YYYY

Type	Date	04-October-2023
CAR#02	Reference	Section 03 of Verification Protocol /DR/OSV/AT Section 04 of Verification Protocol /DR/OSV/AT Section 05 of Verification Protocol /DR/OSV/AT
Description of the Non-Conformance		
1) In Section 4.3 of MR: The verification team not found the methods used for generating/measuring, recording, storing, aggregating, collating and reporting the data on monitored parameters. 2) In Section 4.3 of MR: PP needs to check the uniformity of data measurement in all the stated states with project sites. 3) In Section 4.3 of MR: PP need to mention separate monitoring plan in the MR for all the project scenarios, in all the four states. 4) In Section 4.3 of MR: PP has not stated the trainings conducted during current MP and also details about trainings are not provided along with any evidences. 5) In Section 4.3 of MR: Kindly elaborate on the apportioning procedure. 6) In Section 4.3 of MR: Since the project is registered in VCS, why the authority and responsibility for registration, monitoring, measurement, reporting and reviewing of the data rests with the project participant is defined as a CDM Team? 7) In Section 5.2 of MR: PP indicate the specific clause of the methodology used to calculate project emissions. 8) In Section 5.3 of MR: PP indicate the specific clause of the methodology used to calculate leakage emissions.		

9) In Section 5.4 of MR: PP needs to provide justification for the decreased emission reductions for the particular project activity.				
10) Appendix-I: Calibration frequency cannot be found also provision about the information about calibration entity was also not traced down.				
11) In ER Sheet: Some value is found inconsistent with the JMR provided and it is commented in the ER sheet for specific inconsistencies.				
1 st Response from PP			Date	11-October-2023
1) In Section 4.3 of revised MR 2.0 details for methods used for generating/measuring recording, storing, aggregating, collating and reporting the data on monitored parameters is added.				
2) In Section 4.3 of revised MR version 2.0 the details for data measurement in all the stated states with project sites is mentioned.				
3) In Section 4.3 of MR of revised MR Version 2.0, separate monitoring plan for each site is added				
4) In Section 4.3 of revised MR 2.0 details for trainings conducted during current MP is added and evidences are submitted herewith.				
5) In Section 4.3 of revised MR 2.0 apportioning procedure is elaborated.				
6) In Section 4.3 of revised MR 2.0 is revised as required.				
7) In Section 5.2 of specific clause of the methodology used to calculate project emissions is mentioned.				
8) In Section 5.3 of revised MR version 2.0 specific clause of the methodology used to calculate leakage emissions.				
9) In Section 5.4 of revised MR version 2.0 justification for the decreased emission reductions for the particular project activity is provided.				
10) Appendix-I: Calibration frequency and provision about the information about calibration entity is added				
11) ER sheet has been revised as per the comments				
1 st Assessment by Audit Team		Status	Closed	Date
				16-November-2023
1) In Section 4.3 of MR: The PP has included the methods used for generating/measuring, recording, storing, aggregating, collating and reporting the data on monitored parameters in the updated version of MR. (Closed)				
2) In Section 4.3 of MR: PP has detailed about the information required for data measurement in all the stated states with project sites in the MR version 2.0. (Closed)				
3) In Section 4.3 of MR: PP has mentioned and detailed the monitoring plan separately in the MR version 2.0 for all the project scenarios, in all the four states. (Closed)				
4) In Section 4.3 of MR: PP has stated about the trainings conducted during current MP in the updated version of MR and also detailed about evidences related to trainings has been provided to the assessment team. (Closed)				
5) In Section 4.3 of MR: PP has elaborated the apportioning procedure in the updated version of MR. (Closed)				
6) In Section 4.3 of MR: PP has made sufficient changes in the MR version 2.0's section 4.2. (Closed)				
7) In Section 5.2 of MR: PP has indicated the specific clause of the methodology used to calculate project emissions in the MR version 2.0. (Closed)				
8) In Section 5.3 of MR: PP has indicated the specific clause of the methodology used to calculate leakage emissions in the MR version 2.0. (Closed)				
9) In Section 5.4 of MR: PP has provided the justification for the decreased emission reductions for the particular project activity in the MR version 2.0. (Closed)				
10) Appendix-I: PP has updated the calibration frequency and also provided the information about calibration entity in the MR version 2.0. (Closed)				

11) In ER Sheet: PP has updated and made significant changes in the ER version 2.0 wherever required. (Closed)				
Hence CAR#02 is Closed by the assessment team.				
2 nd Response from PP		Date	DD-Month-YYYY	
2 nd Assessment by Audit Team	Status	Open/Closed	Date	DD-Month-YYYY

Type	Date	04-December-2023
CAR#03	Reference	Section 01 of verification protocol DR/TR Section 03 of verification protocol DR/TR Section 04 of verification protocol DR/TR Section 05 of verification protocol DR/TR
Description of the Non-Conformance		
1) In Section 1.1 of MR. A. Capacity of project is not consistent as per the registered VCS joint PD & MR. B. Total no. of WTGs is not consistent throughout the report. C. PP has not followed VCS MR template V 4.2 for guidelines 2) In Section 1.11 of MR: Employment record submitted by PP shows that employment is given by JSW, PP to specify how this is applicable for this project 3) In Section 3.1 of MR: A. Commissioning details for each location is not mentioned in MR B. Technical reviewer has not provided the Specification of the transformers Distance (nearest and longest) distance from the WTGs to the substation connected 4) In Section 4.3 of MR: A. PP has not provided any details for voltage transformation from WTG Grid. B. PP has not mentioned Voltage at feeder? C. PP has not specified how Readings are taken if both the meters fail at same time 5) In Section 5.1 of MR: PP has not shown the calculation vintage wise. 6) In Section 5.4 of MR: A. 15% or 18%. Specify? B. How was 0.78 % lower PLF result to -15% ER reduction? 7) In Section APPENDIX 1 of MR: PP has not mentioned the name of Calibration Agency?		

1 st Response from PP		Date	05/12/2023	
1) In Section 1.1 of MR. A. Capacity of project is made consistent as per the registered VCS joint PD & MR. B. Total no. of WTGs is made consistent throughout the report. C. MR is updates as pervVCS MR template V 4.2 for guidelines 2) In Section 1.11 of MR: Employment record submitted by PP shows that employment is given by JSW, as the entire SPV is transferred to JSW which was previously owned by Mytrah energy group.Hence employment is provided by JSW group 3) In Section 3.1 of MR: A. Commissioning details for each location is mentioned in appendix 4 B. Details of transformer is provided 4) In Section 4.3 of MR: A. Details for voltage transformation from WTG Grid is provided. B. Voltage at feeder is provided C. In case of both meters fail the readings will be taken from standby meter and one of the meter will be immediately. 5) In Section 5.1 of MR: the calculation is shown vintage wise. 6) In Section 5.4 of MR: A. It is 15% B. -15% ER reduction is due to break down, lower PLF and climatic conditions 7) In Section APPENDIX 1 of MR: the name of Calibration Agency is mentioned				
1 st Assessment by Audit Team	Status	Closed	Date	20/12/2023

- 1) **For Section 1.1 of MR.**
 - A. Capacity of project is consistent as per the registered VCS joint PD & MR.
 - B. Total no. of WTGs is consistent throughout the revised report.
 - C. PP has revised the MR as per VCS MR template V 4.2.
- 2) **For Section 1.11 of MR:** PP has followed the sufficient justification for the employment records, which is acceptable to VVB
- 3) **For Section 3.1 of MR:**
 - A. Commissioning details for each location is mentioned in appendix 04 of MR, as verified by the assessment team.
 - B. PP has provided the Specification of the transformers Distance (nearest and longest) distance from the WTGs to the substation connected in revised MR, as verified by the assessment team.
- 4) **For Section 4.3 of MR:**
 - A. PP has provided details for voltage transformation from WTG Grid in revised MR as verified by the assessment team.
 - B. PP has mentioned Voltage at feeder i.e., 33kV, as verified by the assessment team
 - C. PP has specified that stand by meter readings is used in case if both the meters fail at same time, as verified by the assessment team.
- 5) **For Section 5.1 of MR:** PP has shown the calculation vintage wise in revised MR, as verified by the assessment team.
- 6) **For Section 5.4 of MR:**
 - A. Percentage difference is 15%, as verified by the assessment team.
 - B. PP has specified that 15% ER reduction is due to break down, lower PLF and climatic conditions
- 7) **For Section APPENDIX 1 of MR:** PP has mentioned the name of Calibration Agency in revised MR, as verified by the assessment team

Hence CAR#03 is Closed by the assessment team.

2 nd Response from PP			Date	DD-Month-YYYY
2 nd Assessment by Audit Team	Status	Open/Closed	Date	DD-Month-YYYY

Description of Forward Action Requests raised by VVB:

Type	Date	DD Month YYYY		
FAR	Reference	Section of Val/Ver protocol		
Description of the Non-Conformance				
1 st Response from PP		Date	DD Month YYYY	
1 st Assessment by Audit Team	Status	Open/Closed	Date	DD Month YYYY

APPENDIX C: COMPETENCE STATEMENT

Team Leader



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Sanjay Kumar K
Nationality	Indian
Countries of Experience	India
Education Qualification	B.E. (Civil Engineering) M. Tech (Environmental Engineering)
Year of Experience	20 Years +
Area of Expertise	Climate Change & Environment Sustainable Development GHG Footprints
Eligible Sectoral Scope	TA 1.2 - Renewables TA 3.1 - Energy Demand TA 6.1 - Construction

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (1.2, 3.1, 6.1)	YES
Financial Expert	YES

Reviewed by	Vandana Gupta (Quality Manager)	Date	03.03.2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	03.03.2023

Validator/ Verifier- Trainee



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Anil Dhankar
Nationality	Indian
Countries of Experience	India
Education Qualification	B.Sc. (BCZ) M.Sc. (Environmental Science)
Year of Experience	9 months as Project Trainee in VKU
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	NA

Roles

Project Trainee	NO
Validator/Verifier Trainee	YES
Validator	NO
Verifier	NO
Team Leader	NO
Technical Reviewer	NO
Local Expert (Country Wise)	NO
TA Expert (X.X)	NO
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	07/07/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	07/07/2023

Project Trainee



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Priyanshee Modi
Nationality	Indian
Countries of Experience	India
Education Qualification	M.Sc. (Biotechnology) B.Sc. (Biotechnology)
Year of Experience	Fresher
Area of Expertise	NA
Eligible Sectoral Scope	NA

Roles

Project Trainee	YES
Validator/Verifier Trainee	NO
Validator	NO
Verifier	NO
Team Leader	NO
Technical Reviewer	NO
Local Expert (Country Wise)	NO
TA Expert (X.X)	NO
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	05/06/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	05/06/2023

Technical Reviewer



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Vivek Kumar Ahirwar
Nationality	Indian
Countries of Experience	India, Madagascar, Thailand, Nepal, South Africa, Vietnam, Mozambique, Kenya, Ethiopia, Spain, Singapore, Zimbabwe, Columbia, Zambia, Libya, Indonesia, Myanmar
Education Qualification	B.E.(Mechanical) M.Tech.(Energy Management)
Year of Experience	15 Years +
Area of Expertise	Climate Change & Environment & Industry
Eligible Sectoral Scope	TA 1.1 Thermal Energy & Biomass TA 1.2 Renewables/Non-renewables TA 2.1 Energy Distribution TA 3.1 Energy Demand TA 13.1 Solid waste and Wastewater

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (TA 1.1, 1.2, 2.1, 3.1, 13.1)	YES
Financial Expert	YES

Reviewed by	Apoorva Gupta (Quality Manager)	Date	11/10/2023
Approved by	Barun Kumar (Technical Manager)	Date	11/10/2023