



WIND POWER PROJECT AT ANTHIYUR, TAMIL NADU

Document Prepared by

Windage Power Company (P) LTD

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Monitoring period	01-January-2023 to 31-December-2023 (Inclusive of both the days)
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Prepared by	Windage Power Company (P) LTD

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PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project activity is a 14.85 MW wind farm consisting of 9 WTGs of NM82/1650kW capacity each. The project activity is implemented in the Anthiyur Village of Udumalpet and Pollachi Talukas of Coimbatore District in state of Tamil Nadu, Host Country: India. The project activity involves implementation of WTGs as a voluntary measure to strengthen the Unified Indian grid of India through exploitation of wind power generation potential available to India. The electricity generation from the project activity is free of GHG emissions. In the baseline scenario, in the absence of the project activity, the electricity would have been generated from the power stations operating in the grid which is highly carbon intensive.

The commissioning date of each of the WTGs along with their H.T. Service Number is provided below:

Table no 01; WTG Location along with their HTSC numbers and commissioning date

Location Name	S.F. Nos	HT. Service Number ¹	Date of Commissioning
NSL 1	38&39/3	507	31-March-2005
NSL 2	150/3A2,150/3B,158/1	508	31-March-2005
NSL 3	104/1&109/1	510	31-March-2005
NSL 4	56/1C,47/8&56/1B	533	29-April-2005
NSL 5	431/3	509	31-March-2005
NSL 6	95/2,95/3&95/4	551	17-May-2005
NSL 7	17&18	497	30-March-2005
NSL 8	2/1	511	31-March-2005
NSL 9	254/A1,255/2B,255/2C	482	26-March-2005

The total emission reductions achieved in this monitoring period from **01-January-2023 to 31-December-2023, inclusive of both start and end dates** are **32,589 tCO₂e**. This is part of 2nd crediting period of the project; details are provided under the section 1.6.

¹ These are current HTSC nos. different from the ones at the time of validation. HTSC nos. are assigned by TNEB as per their internal practice which is not under the control of PP. The change in HTSC nos. was already reported under previous verifications.

1.2 Audit History

Audit Type	Period ²	Program	VVB Name	Number of years
Validation	01-April-2006 to 31-March-2016	VCS	TUV NORD CERT GmbH	10 Years
Verification	01-April-2006 to 07-February-2010	VCS	Perry Johnson Registrars	03 years 10 months 07 days
Verification	08-February-2010 to 31-March-2016	VCS	LGA Technological Center, S.A. (Applus+ Certification)	06 years 01 month 21 days
Validation	01-April-2016 to 31-March-2026	VCS	LGA Technological Center, S.A. (Applus+ Certification)	10 Years
Verification	01-April-2016 to 31-October-2017	VCS	LGA Technological Center, S.A. (Applus+ Certification)	01 year 07 months 00 days
Verification	01-November-2017 to 31-August-2018	VCS	Earthood Services Pvt. Ltd.	00 Years 10 months 00 days
Verification	01-September-2018 to 31-October-2019	VCS	Earthood Services Pvt. Ltd.	01 year 02 months 00 days
Verification	01-November-2019 to 31-October-2020	VCS	LGA Technological Center, S.A. (Applus+ Certification)	01 year 00 months 00 days
Verification	01-November-2020 to 31-August-2021	VCS	4K EARTH SCIENCE PRIVATE LIMITED	00 Years 10 months 00 days
Verification ³	01-September-2021 to 30-April-2022	VCS	VKU Certification Pvt. Ltd.	00 Years 08 months 00 days

² All these dates stated are inclusive of both start and end dates

³ 6th Verification of the project activity

Verification ⁴	01-May-2022 to 31-December-2022	VCS	VKU Certification Pvt. Ltd.	00 Years 08 months 00 days
Verification	01-January-2023 to 31-December-2023	VCS	VKU Certification Pvt. Ltd.	1 year 00 months 00 days
Total				17 years 08 months 28 days

1.3 Sectoral Scope and Project Type

Sectoral scope	01 - Energy industries (renewable / non-renewable sources)
Project activity type	I - Renewable Energy Projects

1.4 Project Proponent

Organization name	Windage Power Company (P) LTD
Contact person	A. Rajnikant
Title	Head - Wind Projects & Operations
Address	#8-2-684/2/A, NSL ICON, Road No. 12, Banjara Hills, Hyderabad, Telangana, India,
Telephone	+91 40 3051 4444
Email	rajnikant.a@nslpower.com

1.5 Other Entities Involved in the Project

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

⁴ 7th Verification of the project activity

1.6 Project Start Date

Project start date	26-March-2005
Justification	AS per VCS Standard version 4.6, Clause 3.8 The Project start date is the date on which the project began reducing or removing GHG emissions i.e., the commissioning date of the project.

1.7 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Other The ongoing crediting period under VCS is 10 years (renewal) This is the 2nd crediting period for the project activity. This is the 8th verification of the second crediting period and overall periodic 10th verification. As per VCS Standard (v3.6, 19-October-2016), section 3.8.1 the crediting period (for non-AFOLU projects and ALM projects) will be renewed twice for the duration of ten year each. The first crediting period of the project activity was considered from 01-April-2006 to 31-March-2016, both days including. Hence, the project has been applied for Renewal Crediting period for a period of 10 years. Also as per latest VCS standard version 4.6 where Appendix 3 states that “Registered VCS projects and projects that request registration with the VCS Program on or before 31-December-2019 remain eligible under the VCS Program for the entirety of their crediting periods” The Project completed validation before 31-December-2019 i.e. on <u>29-August-2018</u> and chose to use the crediting period requirements under VCS version 3.
Start and end date of first or fixed crediting period	01-April-2016 to 31-March-2026, including both start and end dates

1.8 Project Location

The 14.85 MW wind farm is located near Anthiyur Village of Udumalpet and Pollachi Talukas of Coimbatore District in Tamil Nadu. This wind farm is located 60 Km south – east of Coimbatore, Tamil Nadu, Country: India

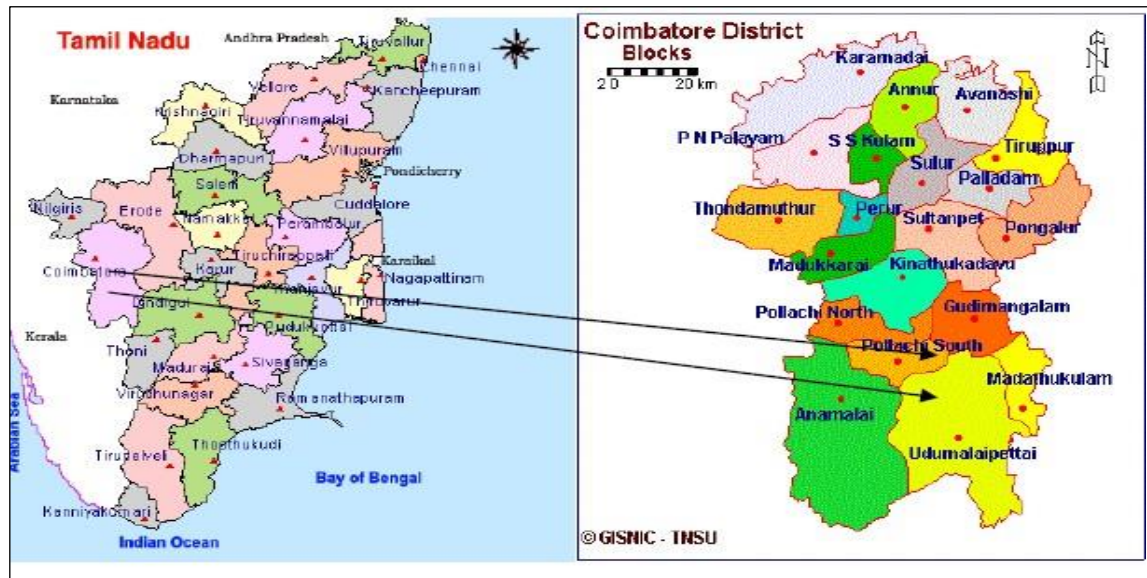


Figure No: 01; Map depicting location of project implemented site.

Table no 03; Location of Project with Geocoordinates

S. No	Location Name	S.F. No	Village Name	Taluk Name	Co-ordinates			HT
					North	East	Altitude in meters	Service Number
1	NSL1	38&39/3	Koolanayakan Patti	Pollachi	10° 36' 49.6"	77° 09' 15.3"	385	507
2	NSL2	150/3A2,150/3B,158/1	Gomangalam Puthoor	Pollachi	10° 37' 21.2"	77° 09' 33.2"	380	508
3	NSL3	104/1&109/1	Gomangalam Puthoor	Pollachi	10° 36' 48.2"	77° 09' 51.0"	386	510
4	NSL4	56/1C,47/8 & 56/1B	Gomangalam Puthoor	Pollachi	10° 37' 01.2"	77° 09' 45.6"	383	533
5	NSL5	431/3	Gomangalam	Pollachi	10° 37' 15.5"	77° 09' 52.9"	379	509
6	NSL6	95/2,95/3 & 95/4	Gomangalam Puthoor	Pollachi	10° 36' 39.6"	77° 10' 07.7"	385	551

S. No	Location Name	S.F. No	Village Name	Taluk Name	Co-ordinates			HT
					North	East	Altitude in meters	Service Number
7	NSL7	17&18	Venasa Patti	Udumalpet	10°37'11.7"	77°11'25.2"	383	497
8	NSL8	2/1	Venasa Patti	Udumalpet	10°37'27.5"	77°11'21.0"	379	511
9	NSL9	254/A1, 255/2B, 255/2C	Pannai Kinaru	Udumalpet	10°38'33.8"	77°11'02.9"	364	482

1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	AMS I.D. Version 18.0 ⁵	Grid connected Renewable Electricity Generation	Version 18.0
Tool	-	Tool to calculate the emission factor for an electricity system ⁶	Version 06 ⁶

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

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

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

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

☐ Yes ☒ No

⁵ <https://cdm.unfccc.int/UserManagement/FileStorage/2P7FS6ZQAR84LG3NMKYUH50WI90DBC>

⁶ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v6.pdf>

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

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

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

☐ Yes ☒ No

1.11.2 No Double Claiming with Other Forms of Environmental Credit

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

☐ Yes ☒ No

1.11.3 Supply Chain (Scope 3) Emissions

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

☐ Yes ☒ No

If yes:

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

☐ Yes ☒ No

If yes:

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

☐ Yes ☒ No

If yes to all:

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

1.12 Sustainable Development Contributions

Project's contribution to sustainable development:

The project primarily assists the region as a whole in stimulating and accelerating the commercialization of grid connected renewable energy technologies. The implemented activities under the project are same as it was designed and developed at the time of commissioning of the project. The technology implemented under the project is renewable energy technology in the form of Wind and main measure of the project is green power being supplied to grid, located in the state of Tamil Nadu. The project falls under the category of “registered before 20-January-2023”, hence a summary of the overall contributions is included below and explanation of how project activities result in the SD contributions described in Table 4 of this report below.

Summary: the project activity contributes to the sustainable development in the following way:

Social well-being:

- Enhancing local employment in the rural area around the project.
- Capacity- building and empowerment of vulnerable sections of the rural community dwelling in the project area.

Economic well-being: During the construction and operation phases, the project activity generated small business opportunities for local stakeholders such as bankers, suppliers, manufacturers and contractors.

Environmental well-being: This project activity contributes to sustainable development through generation of eco-friendly power resulting in the increase of the share of renewable energy power generation in the regional and national grid. It aids in strengthening India's rural electrification coverage. Wind power projects also aid in reducing GHG emissions and other pollutants (SO_x, NO_x, PM, etc.).

Technological well-being: The project activity helps in increasing the share of renewable energy power generation in the regional and national grid. The project activity also, encourages clean, renewable and efficient technologies.

The project's contribution to SDGs with respect to current monitoring period are as follows:



For SDG 7: About 33,333.20 MWh delivered to the Indian grid during the current monitoring period that helps to increase the renewable energy share in the energy mix.



For SDG 13: By supplying 32,589 tCO₂ has been prevented by the project activity during the current monitoring period into the atmosphere during the reporting period i.e. 01-January-2023 to 31-December-2023.



For SDG 8: Project proponent is committed to provide employment opportunities and ensures the proper health & safety trainings. During the current monitoring period the project proponent provided employment to more than 10 numbers of people got direct/indirect employment through the implementation of this project activity.

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
7	7.2	7.2.1 Renewable energy share in the total final energy consumption	Implemented Renewable Energy grid connected Project to increase the Renewable energy share in total grid mix.	33,333.20 MWh delivered to the Indian grid during the current monitoring period.	About (10,725.355 + 29,438.64 ⁷ + 33,333.20 = 73,497.195) MWh renewable electricity has supplied to Indian grid that helps to increase the renewable energy share in the energy mix. ⁸
8	8.5	8.5.1: Employment Generation from the project Activity	Implemented Renewable Energy power generation project activity has generated direct & Indirect employment	More than 10 numbers of people got direct/indirect employment through the implementation of this project activity.	Project is eligible to generate this SDG benefits. However, project is not claiming this SDG benefit. Hence, not quantifying the same here.

⁷ Contribution to the previous 7th monitoring period 01-May-2022 to 31-December-2022 (Inclusive of both the days)

https://registry.terra.org/mymodule/ProjectDoc/Project_ViewFile.asp?FileID=97082&IDKEY=f98klasmf8jflkasf8098afnasfkj98f0a9sfsakjflsakj8dk133876078

⁸ As per VERRA's guidelines to claim SDGs for contributions Over Project Lifetime "The cumulative impact should be calculated by summing the current project contributions with all impacts included in previously approved VCS monitoring reports or Sustainable Development Contribution Reports, PP has only claimed the SDGs in last 6th & 7th verification of 2nd Crediting period, hence in this Monitoring period, PP is only applying values of last 6th & 7th verifications along with current monitoring period.

13	13.2	13.2.1: Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to decrease Greenhouse Gas emission	32,589 tCO ₂ has been prevented by the project activity during the current Monitoring Period.	Prevented the release of (10,485 + 28,782 ⁹ + 32,589 = 71,856) tCO ₂ into the atmosphere during the current monitoring period. ¹⁰
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⁹ Contribution to the previous monitoring period 01-May-2022 to 31-December-2022 (Inclusive of both the days)

https://registry.terra.org/mymodule/ProjectDoc/Project_ViewFile.asp?FileID=97082&IDKEY=f98klasmf8jflkasf8098afnasfkj98f0a9sfsakjflsakjf8dk133876078

¹⁰ As per VERRA's guidelines to claim SDGs for contributions Over Project Lifetime "The cumulative impact should be calculated by summing the current project contributions with all impacts included in previously approved VCS monitoring reports or Sustainable Development Contribution Reports, PP has only claimed the SDGs in last 6th & 7th verification of 2nd Crediting period hence in this Monitoring period, PP is only applying values of last 6th & 7th verifications along with current monitoring period.

1.13 Commercially Sensitive Information

There is no commercially sensitive information applicable for the current monitoring period.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

Stakeholder Identification	Windage Power Company (P) LTD identified the following local stakeholders to be associated with the project activities, directly or indirectly. The typical groups of the stakeholders identified are • Employees of the TNEB • Local people Farmers • Contractors (Vestas (India) Pvt. Ltd.) All the stakeholders were informed about the agenda, venue and date of the meeting through notices issued 15 days prior to the meeting. Further, a project concept note, which gives a clear idea on the project activity including the measures taken under the project and the benefits achieved by the project, was also issued along with the notice as information to the concerned stakeholders.
Legal or customary tenure/access rights	There is not any legal or customary tenure/access rights to territories and resources, including collective and conflicting rights, held by stakeholders, indigenous people (IPs), local communities (LCs), and customary rights holders.
Stakeholder diversity and changes over time	The social, economic, and cultural diversity within stakeholder groups remained stable over time. Interactions between groups were consistent, and there were no significant changes in the composition of each group observed during the monitoring period.

Expected changes in well-being	In the baseline scenario, there are no alterations to the well-being or other characteristics of stakeholders. This includes the preservation of ecosystem services that stakeholders deem important.
Location of stakeholders	Stakeholders, which include local communities, indigenous peoples, and customary rights holders, are primarily located within the project area and its immediate vicinity. Areas beyond the project boundary that do not experience indirect impacts, such as environmental changes or socio-economic shifts, are not considered due to the nature of the wind project.
Location of resources	Since wind projects usually occupy small physical footprints, stakeholders' territories and resources typically do not directly overlap with the project area. However, stakeholders may have customary access to land or resources located in nearby regions. These territories might encompass agricultural lands, grazing areas, or culturally significant sites. Recognizing and respecting these territories are crucial for ensuring effective stakeholder engagement and project planning.

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	The project proponent has organized Local Stakeholder Consultation (LSC) meeting at the time of validation in accordance with the approved communication plan. This meeting served as a forum for stakeholders to express their concerns, stay informed about project developments, and offer feedback. During this monitoring period no LSC was organized however grievance record book has been kept at the plant site to record any concerns from the nearby stakeholders. Additionally, stakeholders have the opportunity to submit their comments and grievances through a dedicated grievance register.
Date(s) of stakeholder consultation	The consultation meeting was conducted by the project proponent on 21-April-2008 at the Anthiyur Village in Tamil Nadu at the wind farm site office. This consultation was

	conducted at the time of validation, NO LSC was performed for current monitoring period.
Communication of monitored results	Monitoring results were shared through the grievance register by documenting grievances, conducting investigations, and documenting resolutions.
Consultation records	The results of stakeholder consultations conducted at the time of validation were documented using a variety of methods, including meeting minutes, reports, surveys, and feedback forms.
Stakeholder input	All input received during the consultation at the time of validation was thoroughly reviewed and analyzed to ensure that stakeholders' perspectives are duly considered. However, no inputs were received during the current monitoring period.

2.1.3 Free, Prior, and Informed Consent

Consent	At the time of LSC conducted at validation of the project activity, Consent from concerned parties, including Indigenous Peoples (IPs), local communities (LCs), and customary rights holders, was obtained through a transparent and inclusive process. This involved engaging in meaningful dialogue, providing relevant information in accessible formats, and addressing any concerns or questions raised. Agreements were reached through consensus-building, ensuring that all parties had the opportunity to express their views and negotiate terms. Transparency was maintained by documenting the process and agreements reached, and ensuring that all stakeholders understood the implications of their consent. During the current monitoring period there are no ongoing or unresolved conflicts, demonstrating that the project does not exacerbate or influence the outcomes of unresolved conflicts.
Outcome of FPIC	The Free, Prior, and Informed Consent (FPIC) process culminated in a transparent agreement between the project proponent and all concerned parties, including Indigenous Peoples (IPs), local communities (LCs), and customary rights holders. Before finalizing this agreement, the project provided comprehensive information about its scope, potential impacts, and mitigation measures in accessible formats and

	local languages during Local Stakeholder Consultation (LSC) at the time of validation. PP hereby declares that the project has not encroached on any land, and does not relocate people, or forced physical or economic displacement. All activities have been conducted in accordance with the regulatory norms and terms outlined in the transparent agreement, ensuring the protection of rights and interests of all stakeholders involved.
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2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
No Grievance was recorded during current monitoring period,	To maintain ongoing communication with stakeholders, a grievance register mechanism has been established, known as the "Grievance Register," located at the project site office and accessible to all stakeholders. Community members can visit the project site to share their complaints, feedback, or comments in this register. If the comments are deemed genuine, immediate action will be taken. A copy of the grievance register is retained at the project site. However, no feedback or grievances have been reported during this monitoring period, resulting in no applicable or relevant outcomes from this ongoing communication with local stakeholders.

2.1.5 Public Comments

Summary of comments received	Actions taken
Provide a summary of each comment received in each row	No comments were found on-site. The grievance register has been provided for feedback collection, ensuring effective communication and resolution of concerns.

2.2 Risks to Stakeholders and the Environment

	Risk identified	Mitigation or preventative measure taken
Risks to stakeholder participation	No risk identified	Stakeholder participation in wind projects poses minimal risk due to the clean nature of wind energy production, which does not emit pollutants. This fosters positive community relationships and reduces potential health and environmental concerns, ensuring smoother

		project implementation and garnering support from the community.
Working conditions	No risk identified	Stakeholder participation in wind projects poses negligible risks when the systems are operational. Wind technology typically operates reliably with minimal maintenance requirements, ensuring consistent energy generation and stakeholder satisfaction.
Safety of women and girls	No risk identified	Ensuring the safety of women and girls in the project involves comprehensive risk assessment and mitigation strategies. Measures such as well-lit areas, security patrols, gender-sensitive policies, and training on harassment prevention help mitigate risks, fostering a safe environment for all stakeholders and workers.
Safety of minority and marginalized groups, including children	No risk identified	While wind projects generally entail minimal or no risks to minority and marginalized groups, comprehensive safety measures have been implemented. This includes ensuring safe access to project sites, implementing child protection policies, and addressing any potential social or economic impacts on marginalized communities, thereby safeguarding their well-being throughout project development and operation.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	No risk identified	The projects' lack of pollutants substantially reduces risks to stakeholders, including potential health hazards or environmental contamination. This inherent cleanliness fosters a safer environment for communities, minimizing concerns related to air and water quality, noise pollution, waste generation, and exposure to hazardous materials, ensuring overall safety and well-being.

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

Discrimination and sexual harassment	No instances of discrimination or sexual harassment have been reported or identified within the project. This is ensured through the implementation of comprehensive
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	policies and training aimed at preventing and promptly addressing such issues.
Management experience	No new entities are involved in in project design or implementation. The initially engaged management is experienced enough to handle the implementation of the project activity.
Gender equity in labor and work	Equal opportunities for gender equity and fair pay are guaranteed through transparent hiring practices, non-discriminatory policies, and regular pay scale reviews to rectify any disparities. Ongoing training programs also foster gender inclusivity and address unconscious biases in the workforce. The Project Proponent ensures equal wage pay to its employees keeping them in line with the minimum wage criteria as per state labor laws.
Human trafficking, forced labor, and child labor	The project has implemented stringent ethical sourcing policies, which include the comprehensive vetting of suppliers and contractors to ensure compliance with labor laws and human rights standards. Regular audits and inspections are carried out to verify that the project's supply chain and workforce are free from human trafficking, forced labor, or child labor. The company policy restricts hiring of any such employee involved in such practices. The project remains under strict surveillance of the project proponent & the state DISCOM, any malpractice at the project implemented site will be immediately reported and strict actions will be taken. Since the date of project start date, PP has not encountered any such activity at the project site.

2.3.2 Human Rights

The project maintains a commitment to upholding the rights of IPs, LCs, and customary rights holders, aligning with international human rights standards, including the UN Declaration on the Rights of Indigenous People. Although there are no indigenous people (IPs), local communities (LCs), and customary rights holders identified, the project proponent (PP) remains steadfast in its commitment to recognizing, respecting, and promoting the protection of human rights. The PP actively engages with stakeholders through ongoing communication and interaction, seeking their feedback and input throughout the project lifecycle.

Additionally, the project incorporates mechanisms for grievance redressal, providing a platform for stakeholders to voice their concerns and lodge grievances. Moreover, there is a comment/feedback box in place to facilitate open communication and ensure that stakeholders' voices are heard and considered.

2.3.3 Indigenous Peoples and Cultural Heritage

Despite the absence of identified cultural heritage sites and any interference with conservation or preservation areas within the project activity, the project remains committed to preserving and protecting cultural heritage as an integral aspect of its activities. Proactive measures are taken, including thorough cultural heritage assessments during planning, strict protocols to minimize disturbances, and collaboration with local communities. By prioritizing cultural heritage preservation, the project upholds its commitment to responsible and sustainable development practices.

The project's comprehensive assessments confirm no harm to indigenous people or cultural heritage. Additionally, project activities explicitly avoid conservation or preservation areas, ensuring no interference with cultural heritage sites.

2.3.4 Property Rights

Disputes over rights to territories and resources	N/A
Respect for property rights	Ongoing measures to protect property rights include upholding agreements made before land acquisition, respecting customary rights, and ensuring transparent and equitable compensation processes. Regular consultations and grievance mechanisms are maintained to address any concerns promptly. No such incident was reported at the time of validation, in last verifications or during current monitoring period.

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	NA
Benefit sharing during the monitoring period	NA

2.4 Ecosystem Health

Risk identified		Mitigation or preventative measure taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk Identified	Throughout the monitoring period, no adverse effects on biodiversity or ecosystems were observed in the project. Wind projects are generally

		recognized as environmentally benign, with minimal impact on surrounding ecosystems.
Soil degradation and soil erosion	No risk Identified	Throughout the monitoring period, no instances of soil degradation or erosion were identified in the project area. Wind projects typically employ land management practices that minimize soil disturbance, ensuring the preservation of soil health and stability.
Water consumption and stress	No risk Identified	Throughout the monitoring period, no concerns regarding water consumption or stress were identified within the project. Wind installations generally have minimal water requirements, reducing strain on local water resources and ecosystems.
Usage of fertilizers	No risk Identified	Throughout the monitoring period, no adverse effects linked to the use of fertilizers were noted in the wind project. Wind installations generally do not necessitate fertilizers, thus removing the possibility of environmental contamination or disruption to ecosystems.

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	The Project is located at Village: Anthiyur, District: Coimbatore, State Tamil Nadu, Country: India and there is no endangered species found during the monitoring period, neither reported at the time of project registration.
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2.4.2 Introduction of species

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

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

2.4.3 Ecosystem conversion

Ecosystem conversion in wind projects is justified by the transition to renewable energy sources, mitigating climate change, reducing reliance on fossil fuels, and fostering sustainable development for future generations.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The implementation status of the project activity includes the following information:

The project activity has been in operation since its date of commissioning. No events have happened that may impact the GHG emission reductions or removals and monitoring during this monitoring period. There are no changes related to the project proponent or project observed. Project is implemented and operational as per the VCS Project description submitted. The project activity is a 14.85 MW wind farm consisting of 9 WTGs of NM82/1650kW capacity each. Each WTG is connected with dedicated feeder. 11 feeders are available at substation. The voltage generated at the hub is 690 V & then stepped up to 22KV connected to grid. Energy generation is measured only through energy meter, present near each WTG.

The Project is in continued operation for 8th periodic verification of 2nd crediting period for which the monitoring period is from 01-January-2023 to 31-December-2023 (Inclusive of both the days).

During the current monitoring period, the project activity has supplied 33,333.20 MWh of electricity, and thus contributing to 32,589 tCO₂e GHG reductions.

For the current monitoring period estimated emission reduction is 30,928 tCO₂e, whereas actual emission reductions achieved are 32,589 tCO₂ (round down value), which is approximately 5.37% higher than the estimated emission reductions.

This variation is majorly due to high plant load factor (PLF¹¹). Some other reasons for this are the variations in the wind flow pattern, grid availability, and other parameters which are not in the control of the project proponent.

More details about the commissioning status and the Technical details of the project WTGs are referred under the Appendix 1.

¹¹ The estimated PLF as per registered PD is 25.20% and actual PLF achieved during the current MP is 25.91%, Calculation can be referred under the ER sheet.

3.2 Deviations

3.2.1 Methodology Deviations

No methodological deviation is applied to the project activity during previous or current monitoring period.

3.2.2 Project Description Deviations

There are no Project description deviations applied during current monitoring period

However, as per section 3.21.2 Para 2 of VCS standard v.4.6 “Where the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology, the deviation shall be described and justified in the monitoring report.” Same has been explained and justified below.

01 Deviation related to energy meter replacement with accuracy class 0.2s

During the monitoring period, (01-April-2016 to 31-October-2017, inclusive of both the days) energy meters installed at HTSC No-751, 752, 754, 788, 753, 808, 728, 755, 690 was replaced with new meters with accuracy class of 0.2s on 08/05/2017, respectively. The calibration and maintenance of energy meters is beyond the control of project participant and is sole responsibility of state utility. Replacement of existing energy meter has been considered as project deviation in line with the guidance provided under section 3.6.1 of VCS standard v.3.7. However, it does not impact the existing applicability conditions of the methodology, additionality or the appropriateness of the baseline scenario.

02 Deviation related to meter calibration frequency:

In previous Monitoring Period (i.e., 01-September-2018 to 31-October-2019 (Inclusive of both the days) deviation had been taken on account of delay in meter calibration. As per VCS PD “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.

It was proposed that meters will be calibrated annually; however as per prevailing practice in the project region there is no dedicated interval for meter calibration. Therefore, PP has referred to national practice as per CEA order¹² dated 17-March-2016; which prescribes in the para 18(b) that “all the meters shall be tested once in five years” (this can also be referred under the CEA Gazette released dated 23rd-December-2019). Details of calibration of energy meters are provided in Section 3.3 of the MR. However, it does not impact the existing applicability conditions of the methodology, additionality or the appropriateness of the baseline scenario.

03 Deviation related to number reference of the location numbering system:

In monitoring period (01-November-2019 to 31-October-2020, (Inclusive of both the days) Another deviation was requested for HTSC numbers. The state authority TNEB has assigned different HTSC numbers as per their internal practice and revision. However, there is no other material change to the project activity except the numbers. These updated HTSC numbers are reported under the ER sheet and also included under the Appendix 1.

04 Deviations related to the name change of the project proponent:

¹² https://cea.nic.in/wp-content/uploads/2020/02/CEA_metering_regulation_amendment_2019.pdf

The project activity was initially undertaken by Nuziveedu Seeds Limited but in 2011 the assets were sold to Windage Power Company (P) LTD and they became the rightful owner of the project. During last monitoring period (01-November-2020 to 31-August-2021 (Inclusive of both the days) the deviation was requested and the same was approved.

3.3 Grouped Projects

Not Applicable, as the project activity is not a Grouped Project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF _{Grid,y}
Data unit	tCO ₂ /MWh
Description	Combined margin CO ₂ Emission Factor of Indian Grid
Source of data	Calculated from operating and built margin, using 75%-25% weights ¹³
Value applied	0.9777
Justification of choice of data or description of measurement methods and procedures applied	CEA has estimated the simple operating margin and build margin emission factors for the regional grids. For calculating the CO ₂ emission factor as per combined margin method for the second crediting period, the weights of 0.75 for operating margin and 0.25 for build margin for Indian grid are considered as per 'Tool to calculate the emission factor for an electricity system (Version 06.0).
Purpose of Data	Calculation of baseline emissions
Comments	The Combined Margin would be calculated ex-ante and fixed during the crediting period. Please refer to the VCS PD of Renewal of Crediting Period, version 1 (Dated: 20-March-2017)

Data / Parameter	EF _{OM,y}
Data unit	tCO ₂ /MWh

¹³Source: https://cea.nic.in/wp-content/uploads/baseline/2020/07/database_11.zip

Description	Simple operating margin emission factor of Indian Grid
Source of data	Calculated from CEA database, Version 11, April 2016 (http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf)
Value applied	0.9941
Justification of choice of data or description of measurement methods and procedures applied	CEA has estimated the simple operating margin and build margin emission factors for the regional grids. For calculating the CO ₂ emission factor as per combined margin method for the second crediting period, the weighted average value of simple operating margin pertaining to Indian grid has been considered, as per 'Tool to calculate the emission factor for an electricity system (Version 06.0)
Purpose of Data	Calculation of baseline emissions
Comments	This value is calculated ex-ante and fixed during the crediting period. Please refer to the renewal of crediting period PD version 1 (Dated: 20-March-2017)

Data / Parameter	EF _{BM,y}
Data unit	tCO ₂ /MWh
Description	Build margin emission factor of Indian Grid
Source of data	Calculated from CEA database, Version 11, April 2016 (http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf)
Value applied	0.9285
Justification of choice of data or description of measurement methods and procedures applied	CEA has estimated the build margin emission factors for the regional grids. For calculating the CO ₂ emission factor as per combined margin method for the second crediting period, the build margin value for the most recent year (i.e., 2014-15) pertaining to the Indian grid has been considered, as per 'Tool to calculate the emission factor for an electricity system (Version 06.0)
Purpose of Data	Calculation of baseline emissions
Comments	This value is calculated ex-ante and fixed during the crediting period. Please refer to the renewal of crediting period PD version - 1 (Dated: 20-March-2017)

4.2 Data and Parameters Monitored

For the project activity, the following parameters are being monitored on continuous basis:

Data / Parameter	EG _{Gross,y}
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Data unit	kWh
Description	Gross Electricity export to the grid by the project during the year y
Source of data	From the certified joint meter readings
Description of measurement methods and procedures to be applied	Gross electricity generated by each WTG is recorded with the aid of energy meter for that WTG. The procedures for metering and meter reading will be as per the provisions of the power purchase agreement.
Frequency of monitoring/recording	The parameter will be monitored continuously and recorded at least monthly.
Value monitored	33,704,000
Monitoring equipment	Energy Meter
QA/QC procedures to be applied	QA/QC procedures are as implemented by TNEB–state government utility. It was proposed that the meters used are calibrated under the purview of state utility and calibrated by NABL(National Accreditation Board for Testing and Calibration Laboratories) accredited Laboratory once in a year to ensure accuracy of data. However, as per prevailing practice in the region such frequency is not addressed. But the consumption by equipment/electricity exported to the grid registered by main meters hold good for purpose of billing as long as errors in main meters are within the permissible limits. Therefore, as per the provision of CEA Order 2016, Hence, PP has considered testing of energy meters once in five years ¹⁴ .
Purpose of the data	Used to calculate baseline emissions
Calculation method	Same as mentioned under the description of measurement methods
Comments	All records relating to the project are kept in a secure and retrievable manner for at least two years after the end of the project crediting period.

Data / Parameter	EG _{Net,y}
Data unit	MWh
Description	Net electricity supplied to the grid
Source of data	Monthly joint Energy Meter Reading Reports of 9 energy meters covering 9 numbers of WTG

¹⁴ Refer Section 4.3 on Monitoring Plan for details where Data Monitoring has been described

Description of measurement methods and procedures to be applied	Continuous measurement and monthly recording. The monitoring of 'Net Electricity supplied to the grid' would be as per the details provided in Power Purchase Agreement signed between the TNEB and project owner. The HTSC No. for the individual or group of turbines represents the unique identification of the joint meter. The net electricity supplied to the grid is calculated by the summation of the net electricity export figures of individual WTGs.
Frequency of monitoring/recording	The parameter will be monitored continuously and recorded at least monthly.
Value monitored	33,333.20
Monitoring equipment	Energy Meter
QA/QC procedures to be applied	Every month these meter readings will be recorded by TNEB representative and plant personnel. The meters at the substation will be two-way meters and will be in the custody of TNEB. The quantity of net electricity supplied is cross-verified from the invoice raised on TNEB by the project proponent
Purpose of the data	Used to calculate baseline emissions
Calculation method	Same as mentioned under the description of measurement methods
Comments	All records relating to the project are kept in a secure and retrievable manner for at least two years after the end of the project crediting period.

Data / Parameter	EG _{import,y}
Data unit	kWh
Description	Electricity imported from the grid by the project during the year y
Source of data	From the certified joint meter readings
Description of measurement methods and procedures to be applied	Calculated as measurement from the energy meters available at the generation points.
Frequency of monitoring/recording	The parameter is monitored continuously and recorded at least monthly.

Value monitored	370,797
Monitoring equipment	Energy Meter
QA/QC procedures to be applied	The electricity imported by the individual WTG is recorded. The electricity imported is adjusted against the gross export by the project activity to the grid. To be cross-checked with monthly invoices or receipts of payments.
Purpose of the data	Used to calculate baseline emissions
Calculation method	Same as mentioned under the description of measurement methods
Comments	All records relating to the project are kept in a secure and retrievable manner for at least two years after the end of the project crediting period.

4.3 Monitoring Plan

The monitoring plan, which is implemented by the project proponent describes about the monitoring organization, parameters is monitored, monitoring practices, quality assurance, quality control procedures, data storage and archiving. The authority and responsibility for registration, monitoring, measurement, reporting and reviewing of the data rests on the project proponent.

Purpose of monitoring

The purpose of monitoring is to measure the gross electricity exported, net electricity supplied to the grid and the electricity imported from the project activity to verify the emission reductions.

Types of data and information to be reported, including units of measurement

The approved monitoring methodology (AMS-I.D. version 18) requires monitoring of the gross electricity exported, net electricity supplied to the grid and the electricity imported from the project activity.

Origin of the data

The source of the data on monitoring parameters is certified joint meter readings.

Metering Equipment

Metering system-Energy Meter for each WTG for metering the exported electricity to the grid and imported electricity from grid system

Data Monitoring:

The data is monitored at the main meter of each WTG.

1. Equipment:

The main meter is an Energy Meter of accuracy class 0.2s. The meters will have capability of recording half-hourly and monthly readings.

2. Meter readings:

The monthly meter readings at the project site and receiving station are taken simultaneously by the site personnel and electricity board personnel every month. A document indicating number of kilo-watt-hours indicated by meter will be prepared and signed by officials of the electricity board and operating Office.

a) Accuracy:

All meters installed at the project site are of 0.2s accuracy class. Each meter is jointly inspected and sealed in the presence of both the parties. The accuracy of monitoring parameter is ensured by adhering to the calibration and testing procedure as described in the QA/QC procedures described for each parameter in Section 4.1. The project will adhere to all the mandatory regulatory and statutory requirements at the state as well as national level. The data will be archived for a period of 2 years after the end of the crediting period in the hard copy format.

b) Testing:

All meters were supposed to be tested for accuracy every year in accordance with the registered VCS PD. However, the calibration and maintenance of energy meters is beyond the control of project participant and is sole responsibility of state utility i.e., TNEB (Tamil Nadu Electricity Board). The calibration is performed under the purview of the state entity i.e., TNEB by an NABL accredited laboratory i.e., Measurematic India. All the meters are tested by Tamil Nadu Generation and Distribution Company. The consumption by equipment/ electricity exported to the grid registered by main meters hold good for purpose of billing as long as errors in main meters are within the permissible limits. Therefore, as per the provision of CEA Order 2016, PP has considered testing of energy meters once in five years. And during this monitoring period the meters are calibrated within the timeline i.e., before the due date

Table no 05: Energy Meter Calibration Details (Please refer ER sheet for detailed information):

Location Name	HT. Sc. No	Energy Meter - S.No	Make	Accuracy Class	Type	Date of Calibration /Installation	Latest Date of calibration/ replacement	Validity of calibration *
NSL-1	507	4321904	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022	04-May-2027
NSL-2	508	4321911	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022 Replaced on 10.08.2022	NA
		22002286 ¹⁵	L&T	0.2s	ER300P (DLMS)	Installed On 10-August-2022	Calibrated on 20-June-2022	19-June-2027
NSL-3	510	4321912	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022	04-May-2027

¹⁵ As a part of emergency procedure, PP had spare meter which was calibrated on 20-June-2022 and was kept in laboratory, however due to technical failure in energy meter no 4321911, Make Genus, type; 03D-183 (DLMS) installed at WTG NSL 02, HTSC no 508 was replaced with energy meter number 22002286, Make L&T, type ER300P (DLMS)

NSL-4	533	4321910	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022	04-May-2027
NSL-5	509	5839987	Genus	0.2s	03D-183 (DLMS)	11-November-2020	05-May-2022	04-May-2027
NSL-6	551	4321909	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022	04-May-2027
NSL-7	497	HT2180075	EDMI	0.2s	ME6EDLMS	06-December-2019	05-May-2022	04-May-2027
NSL-8	511	4321905	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022	04-May-2027
NSL-9	482	4322619	Genus	0.2s	03D-183 (DLMS)	08-May-2017	05-May-2022	04-May-2027

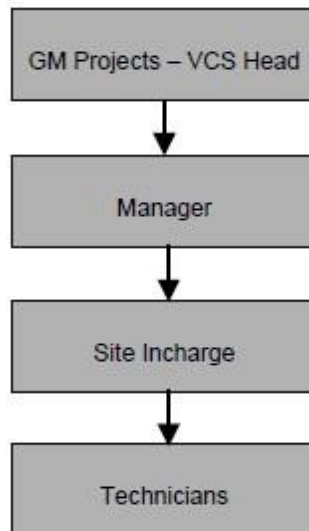
*As compared to the provision of calibration/testing frequency, prescribed under the VCS-PD, the meters are supposed to undergo testing/calibration once in a year. During the current monitoring period, the meters are calibrated on time and there has been no delay in the calibration. The meter calibration is not under the purview of PP. TNEB is the sole authority to conduct the meter calibration, & in the absence of annual practice of calibration, PP shall consider CEA order dated 17-March-2016; 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.

3. Billing:

A daily generation report is prepared by site personnel. As discussed, the meters are capable of storing readings, which is submitted to the state electricity board along with the cumulative meter reading for the wind farm. This is maintained by the state authorities. These readings are used to determine line losses as well as power exported to the grid.

Monitoring roles and responsibilities

The operational and management structure implemented by Windage Power Company (P) LTD (previously known as NSL) is as follows:



The General Manager (GM) manager is the head of the VCS team and would be responsible for coordinating with the manager and ensures that the monitoring is carried out in a transparent and accurate manner. The manager coordinates with the site in charge and the technicians and takes care of all the day to day activities of the plant and is responsible for testing the equipment, billing and archiving the data. The site in charge and the technicians are responsible for recording the operation and downtime hours of the project activity.

The monitoring team is also responsible for the following:

- Overall maintenance of the WTGs
- Calculation of actual creditable emission reduction in the most transparent and relevant manner
- For claims and settlement of electricity payment from the state utility every month
- Renewal of contracts with OEMs, insurance etc.
- Periodical meter checking, calibration etc.
- Meet the training needs of the personnel other than from the O&M contract at site
- Extracting, checking and Maintenance of data both manual and electronic form and preservation for the entire crediting period
- The authority and responsibility of project overall project coordination in relation to the VCS validation would be with the project proponent.

Procedures for internal audit and Management review:

An internal audit of the project activity would be done on an annual basis by a special audit team. The audit team would comprise competitive persons who would be appointed by the General Manager in charge.

The audit team after the audit would submit their observations to the Manager for his review and necessary action. The Manager would instruct the VCS team to take the required corrective action if any, suggested by the audit team.

Procedures for corrective actions for better future monitoring and reporting:

Errors or deviations will be identified during the annual internal audits. The VCS team Head (i.e., General Manager in charge) would take up these matters during the annual VCS team meetings (that normally would happen a few days after internal audit reports are prepared and submitted). The root cause of these errors would be discussed and appropriate action would be taken for better future monitoring and reporting. The corrective actions may include:

- Training of monitoring personnel where ever required
- Replacement or repair of equipment

Procedures for maintenance of monitoring equipment:

- The Site Engineer would conduct a physical inspection of all the energy meters once a month
- Any maintenance requirements would be immediately attended
- The energy meters will undergo a preventive maintenance one a year
- The responsibility of maintenance will be with the Site Engineer
- Maintenance history card would be maintained for all energy meters

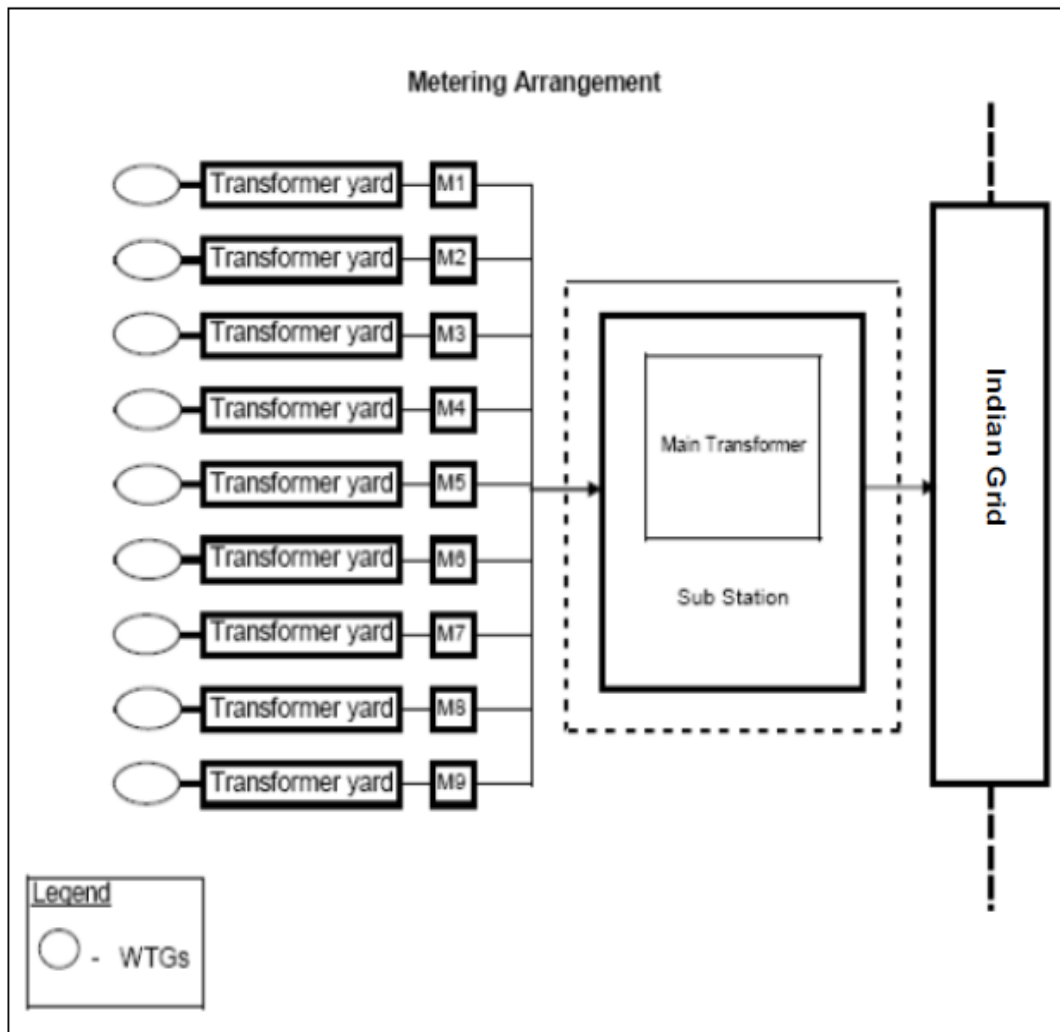
Emergency preparedness

The project activity does result in any unidentified activity that can result in substantial emissions from the project activity. However, in case monitoring equipment get failed or found faulty, these are replaced with calibrated meters as quickly as possible. In case Main meter is found outside the acceptable limits of accuracy or faulty or not functioning properly, it is repaired, recalibrated or replaced with a spare calibrated meter as soon as possible. The same incident has occurred during the last monitoring period. It can be referred in the calibration table 05 above in this section. If in any rare case of main meter failure generation data from nearest WTG will be considered. No such incident has occurred for the project activity during the current monitoring period.

QA & QC Procedures are followed

All meters are calibrated at least once in five year as per CEA notification. Records of calibration certificates are maintained for verification. Hence, high quality is ensured with the above parameters. The calibration of meters is under purview of state electricity board and CME/ project activity instances owner do not have any control on it.

The schematic diagram of the project activity is as given below:



5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

Baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants connected to the Unified Indian Grid that are displaced by the project activity.

As per para 22 of AMS-I.D. (version 18), baseline emissions (BE_y in tCO₂e) are the product of electrical energy baseline EG_{BL,y} expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor (EF_{CO₂,grid,y}).

The Baseline Emissions would be calculated using the formula

$$BE_y = EG_{BL,y} \times EF_{CO_2}$$

EG_{BL,y} = EG_{PJ, facility,y} = Quantity of net electricity supplied by the project plant/unit to the grid in year y (MWh).

Thus, EG_{BL,y} : Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

EF_{CO₂,grid,y} : CO₂ emission factor of the Indian grid in year y (tCO₂/MWh)³

Thus,

BE_y is Baseline Emissions in year y (tCO₂/y)

EF_{CO₂} is CO₂ Emission Factor in year y; tCO₂e/kWh

$$\begin{aligned} \text{Baseline Emissions} &= 33,333.20 \text{ MWh} \times 0.9777 \text{ tCO}_2\text{e/MWh} \\ &= 32,589 \text{ tCO}_2\text{e (rounded down value considered)} \end{aligned}$$

5.2 Project Emissions

As per methodology, para 39 of methodology i.e., AMS-I.D. version 18, This project activity is grid connected wind power generation. Hence there is no project emission from the project activity. PE_y = 0 tCO₂e¹⁶.

¹⁶ https://cdm.unfccc.int/filestorage/2/P/7/2P7FS6ZOAR84LG3NMKYUH50WI90DBC/EB81_repan24_AMS-I.D_ver18.pdf?t=SDJ8cnNwcXAzfDDAZ3JgCEaETqDis7PA_p1i

5.3 Leakage Emissions

As per the methodology i.e., AMS-I.D. version 18, no leakage is considered from the project activity.¹⁷

5.4 GHG Emission Reductions and Carbon Dioxide Removals

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCUs (tCO ₂ e)
Year 2023 (1 st January 2023 to 31 st Dec 2023), Inclusive of both dates	32,589	0	0	32,589	-	32,589
Total	32,589	0	0	32,589	-	32,589

The comparison of actual ER with estimated ERs as per registered PD has been included under the ER sheet and also provided justification based on facts and information.

Comparison of actual emission reductions with estimates in the revised PDD	
MP Start Date	01-January-2023
MP End Date	31-December-2023
Days	365
Annual VCUs as per revised VCS PD (renewal CP)	30,928
Estimated VCUs in VCS PD for the equivalent period of the current MP	30,928
Actual values achieved during this monitoring period	32,589
% change in actual VCUs with estimates in revised PD	5.37%
PLF achieved during current Monitoring period (01-January-2023 to 31-December-2023)	25.91 %
PLF as per registered PD	25.20%

¹⁷ https://cdm.unfccc.int/filestorage/2/P/7/2P7FS6ZQAR84LG3NMKYUH50WI9ODBC/EB81_repan24_AMS-I.D_ver18.pdf?t=SDJ8cnNwcXAzfDDAZ3JgCEaETqDis7PA_p1i

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
Year 2023 (1 st January 2023 to 31 st Dec 2023)	30,928	32,589	5.37%	The ER achieved is higher for the comparable period of the monitoring period, at the same time upon analysing the PLF for the entire year and the previous years, the PLF achieved is 25.91 % for this MP. It is to further specify that the current achieved PLF is within the +10% sensitivity analysis as per registered PD. Thus proving that the current achieved PLF does not affect the IRR when checked with the ex ante values as specified in the registered PD._This higher generation falls within the sensitivity analysis of PLF as stated in the registered PD.

APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

No commercially sensitive information has been provided in the monitoring report.

APPENDIX 1: HTSC NUMBERS

The changes in HTSC nos. are reported below:

Local Ref.	Old HTSC Numbers	New HTSC Numbers ¹⁸
NSL-1	751	507
NSL-2	752	508
NSL-3	754	510
NSL-4	788	533
NSL-5	753	509
NSL-6	808	551
NSL-7	728	497
NSL-8	755	511
NSL-9	690	482

More details related to WTG locations and commissioning dates:

Location Name	S.F. Nos	HT. Service Number	Date of Commissioning
NSL 1	38&39/3	507	31.03.2005
NSL 2	150/3A2,150/3B,158/1	508	31.03.2005
NSL 3	104/1&109/1	510	31.03.2005
NSL 4	56/1C,47/8&56/1B	533	29.04.2005
NSL 5	431/3	509	31.03.2005
NSL 6	95/2,95/3&95/4	551	17.05.2005
NSL 7	17&18	497	30.03.2005
NSL 8	2/1	511	31.03.2005
NSL 9	254/A1,255/2B,255/2C	482	26.03.2005

¹⁸ These are current HTSC nos. different from the ones at the time of validation. HTSC nos. are assigned by TNEB as per their internal practice which is not under the control of PP. The change in HTSC nos. was already reported under previous verifications.

APPENDIX 2: TECHNICAL DETAILS

Technical details of the WTGs reported below:

Operational conditions	
Calculated lifetime	20 years
Cut in wind speed	3.5 m/s
Cut out wind speed	20m/s
Maximum rotational speed	14.4 rpm
Main specification	
Rotor Diameter	82 m
Number of Blades	3
Rotational speed (synchronous)	14.4 rpm
Rotor	
Rotor Diameter	82 m
Tilt angle	5°
Swept area	5281 m ²
Generator	
Nominal Power	1650 kW
Rotational Speed	1012 rpm at rated power
Control system	
Manufacture	VESTAS control systems
Type	Microprocessor based

Technical details of the Transformers reported below:

Transformer Rating:	2250KVA
Type of Cooling:	Onan
HV Side Voltage:	22KV
HV Side Current:	59 Amps
Transformer LV 1 Side Voltage:	690 V Connected to Hub
Transformer LV side Current:	1883 Amps.
Transformer Lv2 Side Voltage:	400V connected to capacitor Panel.
Transformer Lv2 Side Amps:	722 Amps.