



Monitoring Report

CARBON OFFSET UNIT (CoU) PROJECT



Title: 3.0 MW Bundled Small Scale Wind Power Project by Energy Development Company Limited by Energy Advisory Services Pvt Ltd

Version 1.0

Date 20/05/2024

First CoU Issuance Period: 11 years, 0 months

Date: 01/01/2013 to 31/12/2023



**Monitoring Report (MR)
CARBON OFFSET UNIT (CoU) PROJECT**

Monitoring Report	
Title of the project activity	3.0 MW Bundled Small Scale Wind Power Project by Energy Development Company Limited by Energy Advisory Services Pvt Ltd
UCR Project Registration Number	431
Version	1.0
Completion date of the MR	20/05/2024
Monitoring period number and duration of this monitoring period	Monitoring Period Number: 01 Duration of this monitoring Period: (first and last days included (01/01/2013 to 31/12/2023))
Project participants	Project Proponent: Energy Development Company Limited, EDCL House,1 A, Elgin Road, Kolkata 700020 Aggregator: Energy Advisory Services Pvt. Ltd. Bangalore, Karnataka. Email: manoj@easpl.co.in
Host Party	INDIA
Applied methodologies and standardized baselines	CDM UNFCCC Methodology AMS-I.D.: Grid connected renewable electricity generation version-18 & UCR Standard for Emission Factor
Sectoral scopes	01 Energy industries (Renewable/Non-Renewable Sources)
Estimated amount of GHG emission reductions for this monitoring period in the registered PCN	2013: 6,140 CoUs (6,140 tCO ₂ eq)
	2014: 5,285 CoUs (5,285 tCO ₂ eq)
	2015: 4,593 CoUs (4,593 tCO ₂ eq)
	2016: 5,541 CoUs (5,541 tCO ₂ eq)
	2017: 5,093 CoUs (5,093 tCO ₂ eq)
	2018: 4,773 CoUs (: 4,773 tCO ₂ eq)
	2019: 4,958 CoUs (4,958 tCO ₂ eq)
	2020: 4,000 CoUs (4,000 tCO ₂ eq)
	2021: 4,524 CoUs (4,524 tCO ₂ eq)
	2022: 4,523 CoUs (4,523 tCO ₂ eq)
	2023: 4,948 CoUs (4,948 tCO ₂ eq)
Total: 54,378 CoUs (54,378 tCO₂eq)	

SECTION A. Description of project activity

A.1. Purpose and general description of project activity >>

a) Purpose of the project activity and the measures taken for GHG emission reductions >>

The proposed project titled under UCR is “3.0 MW Bundled Small Scale Wind Power Project by Energy Development Company Limited by Energy Advisory Services Pvt Ltd” which is a Wind Power project located in K 73 (Chitradurga): District Chitradurga State Karnataka Longitude: E76° 26’ 36” 4 & Latitude: N14° 05’ 11 3 India and H 25 (Hassan) Location: District Hassan State Karnataka ,Longitude: E76° 11 44’ 2 & Latitude: N13 ° 11’ 09” 3 India. The project is an operational activity with continuous reduction of GHG, currently being applied under “Universal Carbon Registry” (UCR).

This in turn will lead to reduction of greenhouse gas (GHG) emissions by an estimated 54,378 Tonnes of CO₂e during the crediting period of Jan 2013 to December 2023.

b) Brief description of the installed technology and equipment>>

The purpose of the project activity is to utilize renewable wind energy for generation of electricity. The project activity replaces anthropogenic emissions of greenhouse gases (GHG’s) into the atmosphere, by displacing the equivalent amount of electricity generation through the operation of existing fuel fossil fuel-based power plants and future capacity expansions connected to the grid. In the absence of the project activity the equivalent amount of electricity would have been generated from the fossil fuel-based power plant. Whereas the electricity generation from operation of Wind Energy Convertors (WEC’s) is emission free. Commissioning dates of the Wind Turbine Generators installed are shown in the below table:

Sr. No.	RR. No	No. & Capacity	Commissioning Date
1	(Hassan H25) HSN/IPP-020	1 X 1500 kW	27/09/2007
2	(Chitradurga K73) ELP - 10	1 X 1500 kW	30/09/2008

c) Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.)>>

UCR Project ID or Date of Authorization:	
Start Date of Crediting Period:	01/01/2013
Project Commissioned:	01/01/2013

d) Total GHG emission reductions achieved or net anthropogenic GHG removals by sinks achieved in this monitoring period>>

The total GHG emission reductions achieved in this monitoring period is as follows:

Summary of the Project Activity and ERs Generated for the Monitoring Period	
Start date of this Monitoring Period	01/01/2013
Carbon credits claimed up to	31/12/2023
Total ERs generated (tCO2eq)	54,378 tCO2eq
Leakage	NIL

e) Baseline Scenario>>

The baseline scenario identified at the PCN stage of the project activity is:

As per the approved consolidated methodology AMS-I.D. Version 18, if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following: **“The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise, been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”.**

Schematic diagram showing the baseline scenario:

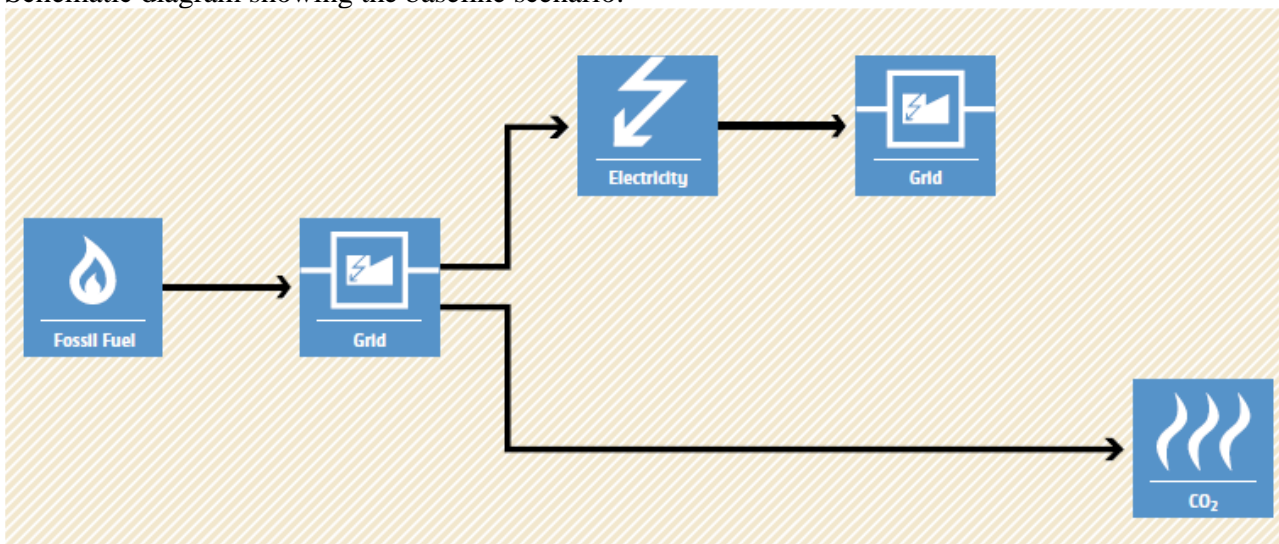


Figure 1- Baseline scenario

A.2. Location of project activity>>

K 73 (Chitradurga) Location: District Chitradurga State Karnataka Longitude: E76° 26' 36" 4 & Latitude: N14° 05' 11 3 India

H 25 (Hassan) Location: District Hassan State Karnataka, Longitude: E76° 11 44' 2 & Latitude: N13 ° 11' 09" 3 India

Representative Map of India



Figure 2- Project location with co-ordinates

Location of installed turbines:

Sr. No.	RR. No	Village
1	HSN/IPP-020	Rangapur -kawal
2	ELP - 10	Elkumahalli

A.3. Parties and project participants >>

Party (Host)	Participants
INDIA	Project Proponent: Energy Development Company Limited, EDCL House, 1 A, Elgin Road, Kolkata 700020 Aggregator: Energy Advisory Services Pvt. Ltd. Bangalore, Karnataka. Email: manoj@easpl.co.in

A.4. References to methodologies and standardized baselines >>

SECTORAL SCOPE	01, Energy industries (Renewable/Non-renewable sources)
TYPE	I – Renewable Energy Projects
CATEGORY	AMS. I.D. (Title: “Grid connected renewable electricity generation”, version 18)

A.5. Crediting period of project activity >>

Start date of the crediting period: 01/01/2013
Length of the crediting period corresponding to this monitoring period: 11 years 0 months
01/01/2013 to 31/12/2023 (Both dates are inclusive)

A.6. Contact information of responsible persons/entities >>

Name : Nikhil Vedprakash
Contact No : +91 7303201778
E-Mail : nikhil@easpl.co.in

SECTION B. Implementation of project activity

B.1. Description of implemented registered project activity >>

The project consists of Two WTGs with individual capacity of 1500 kW which and aggregate capacity of 3,000 kW. These were installed in Two phases v and Commissioning Date as per below:

Sr. No.	RR. No	No. & Capacity	Commissioning Date
1	(Hassan H25) HSN/IPP-020	1 X 1500 kW	27/09/2007
2	(Chitradurga K73) ELP - 10	1 X 1500 kW	30/09/2008

The project generates clean energy by utilizing the kinetic energy of flowing wind.

b) For the description of the installed technology, technical process and equipment, include diagrams, where appropriate>>

The project activity involves 2 Wind Turbine Generators which is manufactured and supplied by Suzlon Energy Limited with total installed capacity of 3,000 kW. The connectivity of all the WTGSs is to a central Monitoring Station (CMS) through high-speed WLAN modem or fibre optic cable which helps in providing real time status of the turbine at CMS with easy GUI (Graphical User Interface) and ability to monitor the functioning of the turbine from CMS.

Some of the salient features of the project equipment can be found in the below mentioned table:

Parameter	S 82	
Operating	Blade Meterial	GRP
	Rated Power	1,500kW
	Cut-in Wind Speed	4.0 m/s
	Rated Wind Speed	12.5 m/s
	Cut-out Wind Speed	20 m/s
Rotor	Rotor Diameter	82 m
	Swept Area	5,281 m ²
Generator	Frequency	50
	Type	Asynchronous 4 Pole

B.2. Do no harm or Impact of the project activity >>

Indian economy is highly dependent on “Coal” as fuel to generate energy and for production processes. Thermal power plants are the major consumers of coal in India and yet the basic electricity needs of a large section of population are not being met. This results in excessive demands for electricity and places immense stress on the environment.

Changing coal consumption patterns will require a multi-pronged strategy focusing on demand, reducing wastage of energy and the optimum use of renewable energy (RE) sources. This project is a greenfield activity where grid power is the baseline. The renewable power generation is gradually contributing to the share of clean & green power in the grid; however, grid emission factor is still on higher side which defines grid as distinct baseline.

The Government of India has stipulated following indicators for sustainable development in the interim approval guide lines for such projects which are contributing to GHG mitigations. The Ministry of Environment, Forests & Climate Change, has stipulated economic, social, environment and technological well-being as the four indicators of sustainable development. It has been envisaged that the project shall contribute to sustainable development using the following ways:

Social well-being: The project would help in generating direct and indirect employment benefits accruing out of ancillary units for manufacturing towers for erection of the Wind Turbine Generators and for maintenance during operation of the project activity. It will lead to development of infrastructure around the project area in terms of improved road network etc. and will also directly contribute to the development of renewable infrastructure in the region.

Environmental well-being: The project utilizes Wind energy for generating electricity which is a clean source of energy. The project activity will not generate any air pollution, wind pollution or solid waste to the environment which otherwise would have been generated through fossil fuels. Also, it will contribute to reduction GHG emissions. Thus, the project causes no negative impact on the surrounding environment contributing to environmental well-being.




Economic well-being: Being a renewable resource, using Wind energy to generate electricity contributes to conservation precious natural resources. The project contributes to the economic sustainability through promotion of decentralization of economic power, leading to diversification of the national energy supply, which is dominated by conventional fuel based generating units. Locally, improvement in infrastructure will provide new opportunities for industries and economic activities to be setup in the area. Apart from getting better employment opportunities, the local people will get better prices for their land, thereby resulting in overall economic development.

Technological well-being: The project activity leads to the promotion of 1500 kW * 2 Nos. Wind Turbine Generators into the region and will promote practice for small scale industries to reduce the

dependence on carbon intensive grid supply to meet the captive requirement of electrical energy and also increasing energy availability and improving quality of power under the service area. Hence, the project leads to technological well-being.

The project activity contributes to the following SDGs;

Table 2: Contribution to the SDGs

<p>7 AFFORDABLE AND CLEAN ENERGY</p> 	<ul style="list-style-type: none"> • The project activity has generated 5, 493 MWh of clean energy per year, which with increased shared will increase the affordability at a cheaper rate to end user. • The project activity will utilize Wind energy (renewal resource) to generate power. The project activity will increase the share of renewable resource-based electricity in global mix of energy consumption.
<p>8 DECENT WORK AND ECONOMIC GROWTH</p> 	<ul style="list-style-type: none"> • Decent work and economic growth. The project activity generates additional employment for skilled and unskilled, also the project situated in a remote area will provide employment opportunities to unskilled people from villages. • Training on various aspects including safety, operational issues, and developing skill sets will also be provided to employees.
<p>13 CLIMATE ACTION</p> 	<ul style="list-style-type: none"> • This Wind power project meets the SDG 13 goal by saving fossil fuel and producing clean energy. • This project has avoided 4,943 tons of CO2 emissions so far up to Dec'23 during this monitoring period. In a Greenfield project, electricity delivered to the grid by the project would reduce the dependence on fossil fuel-based generation units and as there are no associated emissions with this project it contributes to the reduction of greenhouse gases (GHG) emissions.

B.3. Baseline Emissions>>

The baseline scenario identified at the MR stage of the project activity is:

In the absence of the project activity, the equivalent amount of electricity would have been imported from the grid (which is connected to the unified Indian Grid system (NEWNE Grid)), which is carbon intensive due to being predominantly sourced from fossil fuel-based power plants. Hence, the baseline scenario of the project activity is the grid-based electricity system, which is also the pre-project scenario.

Schematic diagram showing the baseline and project scenario:

Baseline Scenario: Electricity would be produced by more GHG intensive means like coal, oil and gas.

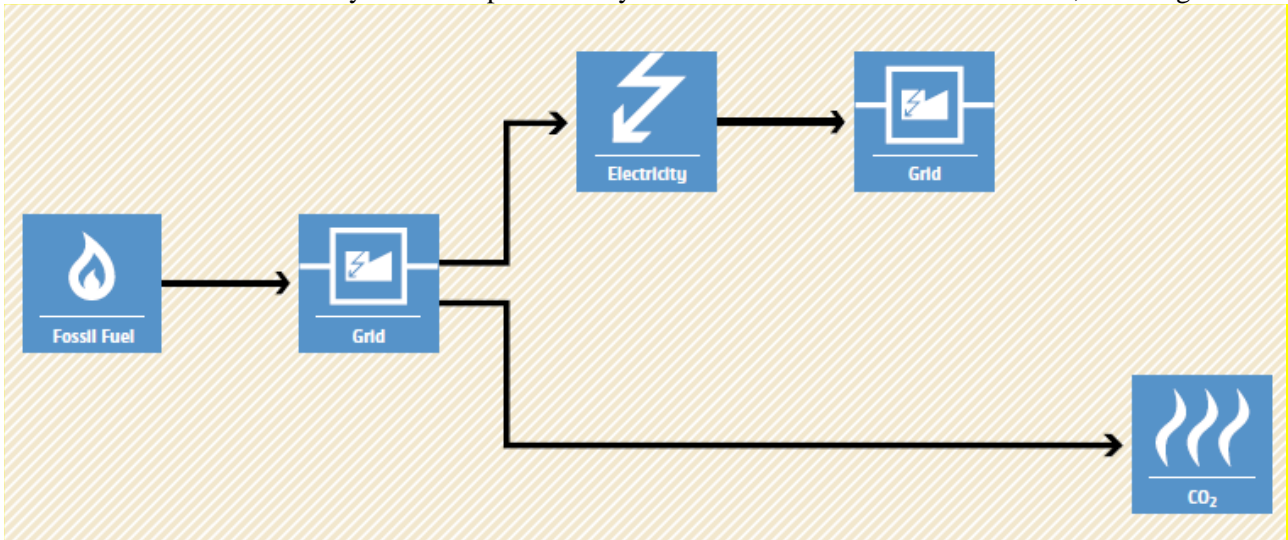


Figure 3- Baseline scenario

Project Scenario: Use of renewable energy technologies for electricity generation, displacing the non-renewable sources

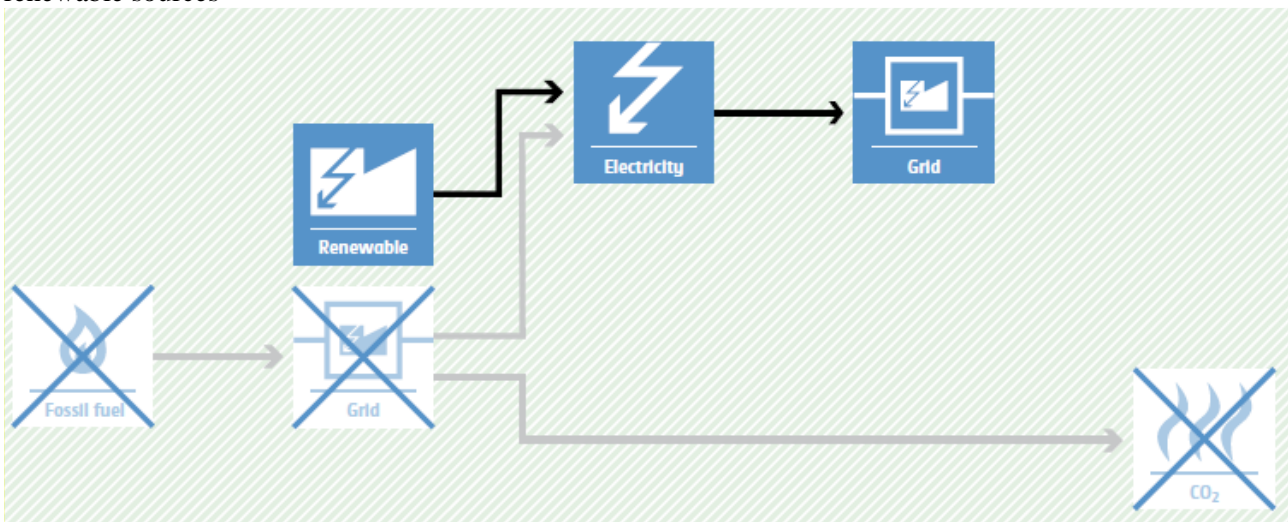


Figure 4- Project scenario

Thus, this project activity was a voluntary investment which replaced equivalent amount of electricity from grid connected power plants. The project proponent was not bound to incur this investment as it was not mandatory by national and sectoral policies. Thus, the continued operation of the project activity would continue to replace thermal energy from non-renewable fuel (coal/oil/gas) and fight the impacts of climate change. The Project Proponent hopes that carbon revenues from 2013-2023 accumulated because of carbon credits generated will help repay the loans and in the continued maintenance of this project activity

B.4. De-bundling>>

This project activity is not a de-bundled component of a larger project activity.

SECTION C. Application of methodologies and standardized baselines

C.1. References to methodologies and standardized baselines >>

SECTORAL SCOPE	01, Energy industries (Renewable/Non-renewable sources)
TYPE	I – Renewable Energy Projects
CATEGORY	AMS. I.D. (Title: “Grid connected renewable electricity generation”, version 18)

C.2. Applicability of methodologies and standardized baselines >>

The project activity involves the generation of grid-connected electricity from the construction and operation of a new wind power-based power project. The project activity has an installed capacity of 3 MW which will qualify for a small-scale project activity under Type-I of the small-scale methodology. The project status is corresponding to the methodology AMS-I.D., version 18, and the applicability of the methodology is discussed below:

Applicability Criterion	Project Case
<p>1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>(a) Supplying electricity to a national or a regional grid; or</p> <p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p>	<p>The project activity is a Renewable Energy Project i.e., wind power project for captive consumption which falls under applicability criteria option 1 point (b).</p> <p>Thus, this project activity fulfils this criterion.</p>
<p>2. This methodology is applicable to project activities that:</p> <p>(a) Install a Greenfield plant;</p> <p>(b) Involve a capacity addition in (an) existing plant(s);</p> <p>(c) Involve a retrofit of (an) existing plant(s);</p> <p>(d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or</p> <p>(e) Involve a replacement of (an) existing plant(s).</p>	<p>The option (a) of applicability criteria 2 is applicable as project is a Greenfield plant. Hence the project activity meets the given applicability criterion.</p>
<p>3. Wind power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <p>(a) The project activity is implemented in existing reservoir, with no change in the volume of the reservoir; or</p> <p>(b) The project activity is implemented in existing reservoir, where the volume of the reservoir(s) is increased and the power density as per definitions given in the project emissions section, is greater than 4 W/m².</p> <p>(c) The project activity results in new reservoirs and the power density of the power plant, as per</p>	<p>The project activity involves installation of Wind Turbine Generators (WTGs); hence, this criterion is not applicable.</p>

<p>definitions given in the project emissions section, is greater than 4W/m2.</p>	
<p>4. If the new unit has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	<p>The proposed project is 3 MW Wind power project, i.e., only component is renewable power project below 15MW, thus the criteria is not applicable to this project activity.</p>
<p>5. Combined heat and power (co-generation) systems are not eligible under this category.</p>	<p>The project activity is wind power project thus the criterion is not applicable to this project activity.</p>
<p>6. In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</p>	<p>The proposed project is a greenfield 3 MW wind power project. As no capacity addition is taking place thus the criterion is not applicable to this project activity.</p>
<p>7. In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement power plant/unit shall not exceed the limit of 15 MW.</p>	<p>The proposed project is a greenfield 3 MW wind power project. As this does not involve retrofit, rehabilitation or replacement, thus the criterion is not applicable to this project activity.</p>
<p>8. In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid, then the baseline for the electricity component shall be in accordance with procedure prescribed under this methodology. If the recovered methane is used for heat generation or cogeneration other applicable Type-I methodologies such as “AMS- I.C.: Thermal energy production with or without electricity” shall be explored.</p>	<p>The proposed project is a greenfield 3 MW wind power project; hence, this criterion is not applicable to this project activity.</p>
<p>9. In case biomass is sourced from dedicated plantations, the applicability criteria in the tool “Project emissions from cultivation of biomass” shall apply.</p>	<p>No biomass is involved, the project is only a wind power project and thus the criterion is not applicable to this project activity.</p>

C.3 Applicability of double counting emission reductions >>

The project was not applied under any other GHG mechanism. Hence project will not causedouble accounting of carbon credits (i.e., COUs).

C.4. Project boundary, sources and greenhouse gases (GHGs)>>

As per applicable methodology AMS-I.D. Version 18, “The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system.” Thus, the project boundary includes the Wind Turbine Generators and the Indian grid system.

Summary of gases and sources included in the project boundary, and justification explanation where gases and sources are not included

	<i>Source</i>	<i>GHG</i>	<i>Included?</i>	<i>Justification/Explanation</i>
Baseline	<i>Emissions from grid connected power plants using non-renewable energy sources as fuel</i>	<i>CO₂</i>	<i>Included</i>	<i>Major source of emission</i>
		<i>CH₄</i>	<i>Excluded</i>	<i>Negligible source of emission</i>
		<i>NO₂</i>	<i>Excluded</i>	<i>Minor source of emissions</i>
		<i>Others</i>	<i>Excluded</i>	<i>No other GHG emissions were emitted from the project</i>
Project Activity	<i>Emissions from on-site electricity use</i>	<i>CO₂</i>	<i>Excluded</i>	<i>Project activity does not emit CO₂</i>
		<i>CH₄</i>	<i>Excluded</i>	<i>Project activity does not emit CH₄</i>
		<i>NO₂</i>	<i>Excluded</i>	<i>Project activity does not emit NO₂</i>
		<i>Others</i>	<i>Excluded</i>	<i>Project activity does not emit any other GHG gases</i>

C.5. Establishment and description of baseline scenario (UCR Protocol) >>

As per the approved consolidated methodology AMS-I.D. Version 18, if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following:

“The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”.

The project activity involves setting up a new Wind Power plant to harness the kinetic energy of flowing water. In the absence of the project activity, the equivalent amount of power would have been supplied by the Indian grid, which is fed mainly by fossil fuel-fired plants. Hence, the baseline for the project activity is the equivalent amount of power produced at the Indian grid.

A "grid emission factor" refers to a CO₂ emission factor (tCO₂/MWh) that will be associated with each unit of electricity provided by an electricity system. The UCR recommends an emission factor of 0.9 tCO₂/MWh for the 2013-2023 years as a conservative estimate for Indian projects not previously verified under any GHG program. Also, for the vintage 2022-2023, the combined margin emission factor calculated from the CEA database in India results in higher emissions than the default value. Hence, the same emission factor has been considered to calculate the emission reduction under a conservative approach.

C.5.1 Net GHG Emission Reductions and Removals >>

Thus, $ER_y = BE_y - PE_y - LE_y$

Where: ER_y = Emission reductions in year y (tCO₂/y)
 BE_y = Baseline Emissions in year y (t CO₂/y)
 PE_y = Project emissions in year y (tCO₂/y)
 LE_y = Leakage emissions in year y (tCO₂/y)

• Baseline Emissions

Baseline emissions include only CO₂ emissions from electricity generation in power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants.

The baseline emissions are to be calculated as follows:

$$BE_y = EG_{PJ,y} \times EF_{grid,y}$$

BE_y = Baseline emissions in year y (t CO₂)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{grid,y}$ = UCR recommended emission factor of 0.9 tCO₂/MWh has been considered. (Reference: General Project Eligibility Criteria and Guidance, UCR Standard, page 4)

• Baseline Emissions Calculation

Sr No	Year	$EG_{PJ,y}$ (kWh)	$EF_{grid,y}$	BE_y
1	2013	6,822,667	0.9	6,140
2	2014	5,872,723	0.9	5,285
3	2015	5,103,942	0.9	4,593
4	2016	6,157,693	0.9	5,541
5	2017	5,658,979	0.9	5,093
6	2018	5,303,652	0.9	4,773
7	2019	5,509,215	0.9	4,958
8	2020	4,444,464	0.9	4,000
9	2021	5,027,126	0.9	4,524
10	2022	5,026,594	0.9	4,523
11	2023	5,498,392	0.9	4,948
tCO₂ for the period Jan 2013 to December 2023				54,378

• Project Emissions Calculation

As per paragraph 39 of AMS-I.D. (version 18), for most renewable energy project activities emission is zero.

Thus, $PE = 0$

• Leakage Emission Calculation

As per paragraph 42 of AMS-I.D. version-18, all projects other than Biomass projects have zero leakage.

Hence, LE = 0

• **Net Emission**

The actual emission reduction achieved during the first CoU period shall be submitted as a part of the first monitoring and verification. However, for the purpose of an ex-ante estimation, the following calculation has been submitted:

Hence,

Net GHG emission reduction, = **54,378** -0-0 = **54,378** tCO₂ (i.e., **54,378** CoUs)

C.6. Prior History>>

The project was not applied under any other GHG mechanism. Hence project will not causedouble accounting of carbon credits (i.e., COUs).

C.7. Monitoring period number and duration>>

First Issuance Period: 11 years, 0 months – 01/01/2013 to 31/12/2023

C.8. Changes to start date of crediting period >>

There is no change in start date of crediting period.

C.9. Permanent changes from PCN monitoring plan, applied methodology or applied standardized baseline >>

Not applicable.

C.10. Monitoring plan>>

Data and Parameters available (ex-post values):

Parameter	<i>EG_{PJ,y}</i>
Data unit	MWh
Description	Quantity of net electricity generation that is produced and fed into the grid because of the implementation of this project activity in year y.
Source of data Value(s) applied	Monthly Electricity Logbook maintained at each Power Plant
Procedures	The Net electricity generation by the Wind Generator is recorded at the sub-station. At the end of every month Electricity generation report is generated based on the total monthly electricity exported to the grid or consumed by the nearby local community.
Monitoring frequency	Monthly
Purpose of data	To calculate the baseline emission

Parameter	<i>EF_{grid,y}</i>
Data and Parameters available at	UCR recommended emission factor

validation (ex-ante values)	
Data unit	tCO ₂ /MWh
Description	A "grid emission factor" refers to a CO ₂ emission factor (tCO ₂ /MWh) which will be associated with each unit of electricity provided by an electricity system. The UCR recommends an emission factor of 0.9 tCO ₂ /MWh for the 2013 - 2023 years as a conservative estimate for Indian projects not previously verified under any GHG program. Hence, the same emission factor has been considered to calculate the emission reduction under conservative approach.
Source of data	https://cea.nic.in/wp-content/uploads/baseline/2023/01/Approved_report_emission_2021_22.pdf and UCR Document
Value applied	0.9
Measurement methods and procedures	-
Monitoring frequency	Ex-ante fixed parameter
Purpose of Data	For the calculation of Emission Factor of the grid
Additional Comment	The combined margin emission factor as per CEA database (current version 19, Year 2023) results into higher emission factor. Hence for 2022 vintage UCR default emission factor remains conservative.

Data/Parameter	Date of commissioning of the units
Data unit	Date
Description	Actual date of commissioning of the project unit
Source of data Value(s) applied	Commissioning report issued by State grid transmission corporation or State electricity board
Measurement methods and procedures	The construction processes are maintained from its initiation to completion dates for the biogas unit. Thus, the start date of each of the unit installed is recorded in the monitoring report.
Monitoring frequency	As and when commissioned and fixed and recorded in the monitoring report
Purpose of data	To estimate baseline emissions