


**Project
Verification
Report**

2021

COVER PAGE	
Project Verification Report Form (VR)	
BASIC INFORMATION	
Name of approved UCR Project Verifier / Reference No.	Enviance Services Private Limited
Type of Accreditation	<input checked="" type="checkbox"/> CDM or other GHG Accreditation <input type="checkbox"/> ISO 14065 Accreditation
Approved UCR Scopes and GHG Sectoral scopes for Project Verification	01 Energy industries (Renewable/Non-Renewable Sources)
Validity of UCR approval of Verifier	30/09/2027
Completion date of this VR	10/08/2024
Title of the project activity	19.5 MW WIND POWER PROJECT IN RAJASTHAN BY LEAP GREEN ENERGY PVT LTD
Project reference no. (as provided by UCR Program)	448
Name of Entity requesting verification service (can be Project Owners themselves or any Entity having authorization of Project Owners, example aggregator.)	UCR ID – 448 Vивиd Emissions Reductions Universal Pvt. Ltd. Name: Lokesh Jain Email ID: lokesh.jain@viviidgreen.com
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	UCR ID – 448 Vивиd Emissions Reductions Universal Pvt. Ltd. Name: Lokesh Jain Email ID:

	lokesh.jain@viviidgreen.com
Country where project is located	India
Applied methodologies (approved methodologies by UCR Standard used)	CDM UNFCCC Methodology: ACM0002: “Grid connected electricity generation from renewable sources”- Version 21.0
GHG Sectoral scopes linked to the applied methodologies	01 Energy industries (Renewable/Non- Renewable Sources)
Project Verification Criteria: Mandatory requirements to be assessed	<input checked="" type="checkbox"/> UCR Standard <input checked="" type="checkbox"/> Applicable Approved Methodology <input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country <input checked="" type="checkbox"/> Eligibility of the Project Type <input checked="" type="checkbox"/> Start date of the Project activity <input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology <input checked="" type="checkbox"/> Credible Baseline <input checked="" type="checkbox"/> Do No Harm Test <input checked="" type="checkbox"/> Emission Reduction calculations <input checked="" type="checkbox"/> Monitoring Report <input checked="" type="checkbox"/> No GHG Double Counting
Project Verification Criteria: Optional requirements to be assessed	<input type="checkbox"/> Environmental Safeguards Standard and do- no-harm criteria <input type="checkbox"/> Social Safeguards Standard do-no- harm criteria

<p>Project Verifier's Confirmation:</p> <p>The <i>UCR Project Verifier</i> has verified the UCR project activity and therefore confirms the following:</p>	<p>The UCR Project Verifier <i>Enviance Services Private Limited</i>, certifies the following with respect to the UCR Project Activity <i>19.5 MW WIND POWER PROJECT IN RAJASTHAN BY LEAP GREEN ENERGY PVT LTD.</i></p> <p><input checked="" type="checkbox"/> The Project Owner has correctly described the Project Activity in the Project Concept Note version 1(05/06/2024) including the applicability of the approved methodology [<i>ACM0002: Grid connected electricity generation from renewable sources-Version 21.0.</i>] and meets the methodology applicability conditions and has achieved the estimated GHG emission reductions, complies with the monitoring methodology and has calculated emission reductions estimates correctly and conservatively.</p> <p><input checked="" type="checkbox"/> The Project Activity is likely to generate GHG emission reductions amounting to the estimated [253,660] TCO_{2e}, as indicated in the PCN version 1, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable UCR</p>
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	<p>rules, including ISO 14064-2 and ISO 14064-3.</p> <p><input checked="" type="checkbox"/> The Project Activity is not likely to cause any net-harm to the environment and/or society</p> <p><input checked="" type="checkbox"/> The Project Activity complies with all the applicable UCR rules¹ and therefore recommends UCR Program to register the Project activity with above mentioned labels.</p>
<p>Project Verification Report, reference number and date of approval</p>	<p>Verification Report</p> <p>UCR Reference number: 448</p> <p>Date of approval 10/08/2024</p>
<p>Name of the authorised personnel of UCR Project Verifier and his/her signature with date</p>	<p>Vidhya Murali Krishna</p>  <p>Quality Manager</p> <p>Date: 12/08/2024</p>

PROJECT VERIFICATION REPORT

Executive summary

The Project "19.5 MW Wind Power Project in Rajasthan by Leap Green Energy Pvt Ltd" is a wind-based power generation facility comprising 15 wind turbines across four villages located in the Jaisalmer district of the state of Rajasthan. The project is owned by Leap Green Energy Private Limited (hereinafter referred to as the Project Proponent or PP).

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, It causes total minimum environmental impacts and in turn will lead to actual emission reduction of 160,224 tCO₂e over the entire monitoring period.

Total cumulative installed capacity of the project would be 19.5 MW with a total gross energy generation of 178,027 MWh during the entire monitoring period. The Large-Scale wind power projects developed by Leap Green Energy Private Limited, will deliver electricity to the buyer, through National transmission network.

Project Activity	Power Plant Name	Village/State	Energy Source	Installed capacity in MW	Annual generation in MWh/year	Commissioning date
1	Akal	Sirwa, Jaisalmer Dist. Rajasthan India	Wind Power	2 X 1.25 MW	2.5	04/12/2010
2	Akal	Sangana, Jaisalmer Dist. Rajasthan India	Wind Power	3 X 1.25 MW	3.75	30/10/2010
3	Akal	Moda/Chord, Jaisalmer Dist. Rajasthan India	Wind Power	7 X 1.25 MW 3 X 1.5 MW	13.25	29/09/2010 30/09/2010

Proposed wind power project has evolved as a result of the policies of Government of India and Government of Rajasthan, which encourages energy development from renewable sources. These policies have given fresh impetus to wind power generation. Also, by virtue of being a wind power plant, the proposed plant can be instantly started, stopped and quickly adjusted for power generation corresponding to variations in power/energy releases.

The electricity produced by the project is directly contributing to climate change mitigation by reducing the anthropogenic emissions of greenhouse gases into the atmosphere by displacing an equivalent amount of power at grid.

Since the project activity will generate electricity through wind energy, a clean renewable energy source, it will not cause any negative impact on the environment and thereby contributes to climate change mitigation efforts.

Scope of Verification

The scope of the services for the project is to perform Project Verification of concerned Project Activity. The scope of verification is to assess the claims and assumptions made in the Project Concept Note (PCN) and Monitoring

Report (MR) against the UCR criteria, including but not limited to, UCR program verification guidance document, UCR Standard, UCR Program Manual, and related rules and guidelines established under Program process.

Verification Process and Methodology

The verification process was undertaken by a competent verification team and involved the following,

- Desk review of documents and evidence submitted in context of the reference rules and guidelines issued by UCR,
- Undertaking/conducting site visit/remote audit, interview or interactions with the representative of the project owners/representatives,
- Reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate and Preparing a draft verification opinion based on the auditing findings and conclusions
- Finalization of the verification opinion (this report)

Desk/Document review

A detailed desk review of the PCN, MR, Methodology and all other associated documentation and references took place in advance of the site visit, and additional documents that were not available for the desk review were requested for review during the remote site visit. Additional information can be required to complete the verification, which may be obtained from other public and reliable sources or through telephone and face to face interviews with key stakeholders (including the project developers and where necessary, Government and NGO representatives in the host country).

A list of all documents reviewed or referred to in the course of this verification is included in Appendix 3 below.

Follow up interviews/site visit

The verifier conducted remote audit and had requested for site photographs, short videos. A remote interview were conducted with the project owners and stakeholders.

Conclusion

Based on the work performed, the verifier concludes that in the project titled "19.5 MW WIND POWER PROJECT IN RAJASTHAN BY LEAP GREEN ENERGY PVT LTD" the information and data presented in the MR version 1.0 is in line with the Project Concept Note Version 1.0 and meets all relevant requirements of the UCR for UCR project activities. The UCR project activity correctly applies the methodology "ACM0002: Grid-connected electricity generation from renewable sources ---Version 21.0, leading to result in real, measurable and long-term emission reductions achieved for the current monitoring period.

For the current monitoring period, verified emission reductions achieved by the project activity were as below;

Start date of monitoring period	01/09/2015
End date of monitoring period	31/12/2023
Emission reductions achieved	160,224tCO ₂ e

Project Verification team, technical reviewer and approver

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Project Verification team

No.	Role	Last name	First name	Affiliation (e.g. name of central or other office of UCR Project Verifier or outsourced entity)	Involvement in		
					Document review	Off-Site inspection	Interviews
1.	Team Leader	Kumar	Mr. Pankaj	Enviance Services Private Limited	Yes	Yes	Yes
2.	Validator-Verifier Technical Expert	Jain	Mr. Vipul	Enviance Services Private Limited	Yes	Yes	Yes
3.	V-V Trainee Technical Expert in Trainee	Mahajan	Ms. Swati	Enviance Services Private Limited	Yes	Yes	Yes

Technical reviewer and approver of the Project Verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of UCR Project Verifier or outsourced entity)
1.	Technical reviewer	Internal	-	Mr. Vijayanand	Enviance Services Private Limited

Means of Project Verification

Desk/document review

A detailed desk review of the PCN, MR, methodology and all other associated documentation and references took place in advance of the remote audit, and additional documents that were not available for the desk review were requested for review during the remote audit. Additional information can be required to complete the verification, which may be obtained from other public and reliable sources or through telephone and face-to-face interviews with key stakeholders (including the project developers and where necessary, Government and NGO representatives in the host country).

A list of all documents reviewed or referred to in the course of this verification is included in Appendix 3 below.

Off-site inspection

Date of off site inspection:

19/07/2024

No.	Activity performed Off-Site	Site location	Date
1.	<ul style="list-style-type: none"> a) An assessment of the implementation and operation of the project activity as per the PCN and UCR requirements b) Verification of the project design, as documented is sound and reasonable, and meets the identified criteria of UCR Standard Requirements and associated guidance c) Assessment to conformance with the certification criteria as laid out in the UCR Standards; d) Evaluation of the conformance with the certification scope, including the GHG project and baseline scenarios, additionality; GHG sources, sinks, and reservoirs; and the physical infrastructure, activities, technologies and processes of the GHG project to the requirements of the UCR; e) Evaluation of the calculation of GHG emissions, including the correctness and transparency of formulae and factors used; assumptions related to estimating GHG emission reductions; and uncertainties; and determination whether the project could reasonably be expected to achieve the estimated GHG reduction/removals. f) Review of information flows for generating, aggregating and reporting of the parameters to be monitored g) To confirm that the operational and data collection procedures can be implemented in accordance with the Monitoring Plan h) Cross -check of information provided in the submitted documents and data from other sources available at site i) Review of calculations and assumptions made in determining the GHG data and estimated ERs, and an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters j) Interviews of local Stakeholders 	Sirwa, Sangana, Moda, chord, Jaisalmer Dist. Rajasthan India.	19/07/2024
...			

Interviews

No.	Interview			Date	Subject
	Last name	First name	Affiliation		
1.	Mahanta	Sarashi	Viviid Emissions Reductions Universal Pvt. Ltd.	19/07/2024	Project Implementation, Monitoring plan, Project Boundary, Eligibility criteria, Host country requirements, Emission reduction calculations Project implementation, monitoring, Local stakeholder consultation
2.	Mishra	Priya	Viviid Emissions Reductions Universal Pvt. Ltd.		
3.	-	Mr. Tirumalai	Leap Green Energy Pvt. Ltd.		
4.	-	Mr. Deepak	O & M incharge, Rajasthan site		
5.	Rathore	Dilip Singh	Local Stakeholder, Modha Village, Akal Site		
6.	Singh	Bhom	Local Stakeholder, Sirwa Village, Akal Site		
7.	Rathore	Karan Singh	Local Stakeholder, Sangana Village, Akal Site		
8.	Singh	Khangar	Local Stakeholder, Chord Village, Akal Site		
9.	Singh	Ganpat	Local Stakeholder, Chord Village, Akal Site		

Sampling approach

Not Applicable.

Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of CL	No. of CAR	No. of FAR
Green House Gas (GHG)			
Identification and Eligibility of project type			
General description of project activity	01	01	
Application and selection of methodologies and standardized baselines		01	
- Application of methodologies and standardized baselines			
- Deviation from methodology and/or methodological tool			
- Clarification on applicability of methodology, tool and/or standardized baseline			
- Project boundary, sources and GHGs			
- Baseline scenario			
- Estimation of emission reductions or net anthropogenic removals	01		

- Monitoring Report		02	
Start date, crediting period and duration			
Environmental impacts			
Project Owner- Identification and communication			
Additionality		01	
Sustainable development goal (SDG+)	01		
Total	03	05	

Project Verification findings

Identification and eligibility of project type

Means of Project Verification	<p>The project has a 19.5 MW total installed capacity and hence qualifies as a large-scale project. This is confirmed based on the commissioning certificates and technical specifications.</p> <p>Since the project is a large-scale project it has applied approved CDM large scale methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0</p> <p>The Project owner has used valid MR form available at the UCR website for the preparation of MR for the current project activity. The project owner has prepared MR in line with UCR guidance and requirements.</p>
Findings	No findings raised
Conclusion	The UCR-approved format is used for description and the project meets the requirement of the UCR verification standard and UCR project standard. UCR project communication agreement was submitted to the verifier and the same has been verified. Methodology referenced and applied appropriately describing the project type. The eligibility of the project aggregator is verified using the UCR communication agreement, Project correctly applies the verification standard, UCR project standard, and UCR regulations. The project activity is overall meeting the requirements of the UCR Verification standard and UCR project standard

General description of project activity

Means of Project Verification	<p>The project activity involves the operation of 19.5 MW of large-scale wind power project and its commissioning date was verified through the commissioning certificate of the project. The power evacuation at the substation is confirmed by the power purchase agreement.</p> <p>Assessment team conducted documentation review of the PCN against the UCR program verification standard version 2.0 and UCR project eligibility criteria version 6.0 and the UCR-PCN-FORM Version 1.0.</p> <p>By checking the supporting documents, it is confirmed that the project is a newly built wind power project, located in India in the state of Rajasthan at Sirwa, Jaisalmer Dist. Rajasthan, Sangana, Jaisalmer Dist. Rajasthan, Moda/Chord, Jaisalmer Dist. Rajasthan India</p> <p>The approximate coordinates of the project locations are</p> <table border="1"> <thead> <tr> <th>LOC_NO</th> <th>Site Name</th> <th>Village</th> <th>LONGITUDE</th> <th>LATITUDE</th> </tr> </thead> <tbody> <tr><td>AK249</td><td>Akal</td><td>Sangana</td><td>26.80342</td><td>71.115722</td></tr> <tr><td>AK279</td><td>Akal</td><td>Sangana</td><td>26.80147</td><td>71.132583</td></tr> <tr><td>AK408</td><td>Akal</td><td>Sangana</td><td>26.78594</td><td>71.110167</td></tr> <tr><td>AK223</td><td>Akal</td><td>Chord</td><td>26.76533</td><td>71.137806</td></tr> <tr><td>AK30</td><td>Akal</td><td>Chord</td><td>26.70306</td><td>71.102083</td></tr> <tr><td>AK31</td><td>Akal</td><td>Moda</td><td>26.70006</td><td>71.104361</td></tr> <tr><td>AK32</td><td>Akal</td><td>Moda</td><td>26.69747</td><td>71.106583</td></tr> <tr><td>AK33</td><td>Akal</td><td>Moda</td><td>26.69317</td><td>71.109056</td></tr> <tr><td>AK26</td><td>Akal</td><td>Sirwa</td><td>26.68842</td><td>71.100056</td></tr> <tr><td>AK35</td><td>Akal</td><td>Moda</td><td>26.68886</td><td>71.115833</td></tr> <tr><td>AK36</td><td>Akal</td><td>Moda</td><td>26.68636</td><td>71.117194</td></tr> <tr><td>AK25</td><td>Akal</td><td>Sirwa</td><td>26.68</td><td>71.106806</td></tr> <tr><td>AK37</td><td>Akal</td><td>Moda</td><td>26.68203</td><td>71.117917</td></tr> <tr><td>AK16</td><td>Akal</td><td>Sirwa</td><td>26.66081</td><td>71.090639</td></tr> <tr><td>AK15</td><td>Akal</td><td>Sirwa</td><td>26.65869</td><td>71.094722</td></tr> </tbody> </table> <p>Assessment team performed a remote inspection of project and confirmed that the location described in the PCN is accurate.</p> <p>The Project is a wind power project, to utilize wind energy to generate zero carbon emission electricity which is mainly dominated by fossil fuel power output. The project includes integrated power transmission mechanism, high performance rotor blades, dual speed asynchronous generator, microprocessor based fully automatic control system with user friendly operation and central monitoring system. Quality, Safety and Health plan for construction, installation, commissioning and Operation & Maintenance. Microprocessor controlled high efficiency soft start. Active Yaw gear drives incorporating hydraulic yaw brakes.</p>	LOC_NO	Site Name	Village	LONGITUDE	LATITUDE	AK249	Akal	Sangana	26.80342	71.115722	AK279	Akal	Sangana	26.80147	71.132583	AK408	Akal	Sangana	26.78594	71.110167	AK223	Akal	Chord	26.76533	71.137806	AK30	Akal	Chord	26.70306	71.102083	AK31	Akal	Moda	26.70006	71.104361	AK32	Akal	Moda	26.69747	71.106583	AK33	Akal	Moda	26.69317	71.109056	AK26	Akal	Sirwa	26.68842	71.100056	AK35	Akal	Moda	26.68886	71.115833	AK36	Akal	Moda	26.68636	71.117194	AK25	Akal	Sirwa	26.68	71.106806	AK37	Akal	Moda	26.68203	71.117917	AK16	Akal	Sirwa	26.66081	71.090639	AK15	Akal	Sirwa	26.65869	71.094722
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Findings	CL 01 & CAR 01 was raised and closed successfully.																																																																																
Conclusion	The description of the project activity is verified to be true based on the review of PCN, MR, Commissioning Certificate, Purchase Order Copies and power purchase agreements.																																																																																

Application and selection of methodologies and standardized baselines

(.a.i) Application of methodology and standardized baselines

Means of Project Verification	The project has taken the reference of CDM methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0 CDM website is referred to check the latest version of the methodology. For the applicability mentioned in the PCN and MR, turbine Specification, and commissioning certificate
Findings	No findings raised
Conclusion	The methodology applied is appropriately meeting the requirements of UCR and its standardized baseline. The methodology version is correct and valid. The referenced methodology is applicable to project activity.

(.a.ii) Clarification on applicability of methodology, tool and/or standardized baseline

Means of Project Verification	The documents reviewed are ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0; UCR Program standard, and UCR Verification Standard
Findings	No findings raised
Conclusion	The emission factor considered for the calculation of the emission reductions is verified with the UCR Program Standard. The total installed electrical energy generation capacity of the project equipment exceeds 15 MW thus meeting the requirement of large-scale projects. It was confirmed that application of methodology and tools is correctly described in the MR submitted

(.a.iii) Project boundary, sources and GHGs

Means of Project Verification	Project owner has considered project boundary as per applicable methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0, “The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the UCR project power plants are connected. Thus, the project boundary includes the Wind Turbine Generators (WTGs) and the Indian grid system”. Review of PCN and MR confirms that project sites and Indian electricity grid system is considered as a project boundary which is appropriate
Findings	No findings raised
Conclusion	The project boundary is correctly defined in the PCN and MR. GHG sources are correctly identified and reported. The project meets the requirements of UCR project standard, Verification standard and methodology requirements for a boundary, GHG sources.

(.a.iv) Baseline scenario

Means of Project Verification	As per the applied methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0 the baseline scenario is as 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. Remote audit conducted and document review showed that in absence
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	of the project activity, the generated electricity would have been supplied by the Indian grid which is dominated by fossil fuel fired plants.
Findings	No findings raised
Conclusion	<p>The approved baseline methodology has been correctly applied to identify a realistic and credible baseline scenario, and the identified baseline scenario most reasonably represents what would occur in the absence of the proposed UCR project activity.</p> <p>All the assumption and data used by the project participants are listed in the PCN and/or supporting documents. All documentation relevant for establishing the baseline scenario are correctly quoted and interpreted in the PCN. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable. Relevant national and/or sectoral policies and circumstances are considered and listed in the PCN.</p>

(.a.v) Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	<p>The verification team has assessed the calculations of baseline emissions and emission reductions. Corresponding calculations have been carried out based on calculation spread sheet. The parameters and equations presented in the PCN, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has been made to ensure consistency between all the formulae presented in the calculation files and in the PCN, methodology.</p> <p>The assumptions and data used to determine the emission reductions are listed in the PCN and all the sources have been checked. Based on the information reviewed it is confirmed that the sources used are correctly quoted and interpreted in the PCN.</p> <p>The values presented in the PCN are considered reasonable based on the documentation and references reviewed and the results of the interviews.</p> <p>The baseline methodology has been applied correctly according to requirements.</p> <p>The estimate of the baseline emissions are considered correct as the calculations have been reproduced by the verification team with the attainment of the same results. The algorithms for the determination of the baseline, project, and leakage are discussed in the following sections.</p> <p>A "grid emission factor" refers to a CO₂ emission factor (tCO₂/MWh) which 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 2014-2020 years as a fairly conservative estimate for Indian projects not previously verified under any GHG program. Also, for the vintage 2021, the combined margin emission factor calculated from CEA database in India results into higher emission than the default value. Hence, the same emission factor has been considered to calculate the emission reduction under conservative approach.</p> <p>Net GHG Emission Reductions and Removals</p> $ER_y = BE_y - PE_y - LE_y$ <p>Where:</p> <p>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)</p>
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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:

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

Where:

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 this project activity in year y (MWh)

$EF_{grid,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y.

UCR recommended emission factor of 0.9 tCO₂/MWh has been considered, this is conservative as compared to the combined margin grid emission factor which can be derived from Database of Central Electricity Authority (CEA), India. (Reference: General Project Eligibility Criteria and Guidance, UCR Standard, page 4)

Project Emissions

As per ACM0002 version 21.0, only emission associated with the fossil fuel combustion, emission from operation of geo-thermal power plants due to release of non-condensable gases, emission from water reservoir of Hydro should be accounted for the project emission. Since the project activity is a wind power project, project emission for renewable energy plant is nil.

Thus, $PE_y = 0$.

Leakage

As per ACM0002 version 21.0, 'If the energy generating equipment is transferred from another activity, leakage is to be considered.' In the project activity, there is no transfer of energy generating equipment and therefore the leakage from the project activity is considered as zero.

Hence, $LE_y = 0$

The actual emission reduction achieved during the first CoU period have been submitted as a part of first monitoring and verification.

Yearly emission reductions calculation for the monitoring period is given in the table below.

S.NO	Monitoring Period	Net Energy Export (KWh)	Emission Factor (tCO2e/MWh) EFy	Baseline Emissions (tCO2e) [BEy]= [EGfacility, y]* [EFy]	Project Emissions (tCO2e) PEy	Leakage (tCO2Ee) LEy	Emission reductions (tCO2e) ERy=Bey-Pey-LEy
1	01/09/2015 to 31/12/2023	4859	0.9	4373	0	0	4373
2	01/01/2016 to 31/12/2016	23010	0.9	20709	0	0	20709
3	01/01/2017 to 31/12/2017	23258	0.9	20932	0	0	20932
4	01/01/2018 to 31/12/2018	21001	0.9	18901	0	0	18901
5	01/01/2019 to 31/12/2019	21393	0.9	19253	0	0	19253
6	01/01/2020 to 31/12/2020	19635	0.9	17671	0	0	17671
7	01/01/2021 to 31/12/2021	22853	0.9	20568	0	0	20568
8	01/01/2022 to 31/12/2022	20152	0.9	18461	0	0	18461
9	01/01/2023 to 31/12/2023	21506	0.9	19356	0	0	19356
	Total	178027		160224			160224

Findings No findings raised

Conclusion In summary, the calculation of emission reductions was correctly demonstrated by the PP according to the methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0 and UCR recommended emission factor of 0.9 tCO2/MWh.

It is confirmed by Assessment team that:

(a) All assumptions made for estimating GHG are listed in the PCN; (b) All documentation used by the project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PCN; (c) All values used in the PCN including GWPs are considered reasonable in the context of the proposed UCR project activity; (d) The methodologies and, where applicable, the standardized baselines and the other methodological regulatory documents have been applied correctly to calculate baseline, project and leakage GHG emissions, as well as GHG emission reductions; (e) All estimates of the baseline GHG emissions can be replicated using the data and parameter values provided in the PCN; (f) The sampling efforts were undertaken in accordance with the “Standard:

	Sampling and surveys for UCR project activities and programme of activities”, where the applied methodologies require that the data and parameters be determined in accordance with this standard.
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(.a.vi) Monitoring Report

Means of Project Verification

Parameters determined ex-ante

The following parameters are determined ex-ante and verified by the verification team:

The baseline emission factor of the project is reported to be determined ex-ante and would remain fixed for the crediting period, which is calculated as a combined margin (CM), consisting of the combination of OM and BM emission coefficient. The parameters applied in the calculation were validated by the verification team.

The verification team confirms that all relevant parameters have been sufficiently considered and the values of the parameters are real, measurable and conservative.

Parameters monitored ex-post

According to the approved methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0, the following parameters will be monitored:

Parameter	Description
EGPJ,facility,y	Quantity of net electricity generation supplied by the projectplant/unit to the grid in year y
EGPJ,output,y	Electricity supplied by the proposed CDM project to the grid in year y
EGPJ,input,y	The electricity used by the proposed CDM project and input from the grid in year y

The values of the parameters monitored were checked against submitted Joint Meter Readings and invoices and were found correct.

Management system and quality assurance

The monitoring plan presented in the PCN complies with the requirements of the applicable methodology. The verification team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The management system and quality assurance procedures have been reviewed by the verification team through document review and interviews with the project participant. The project participant would train all the monitoring staffs are trained against with related requirement; the training guidelines and monitoring manual are saved and verified.

The monitoring plan outlines in the PCN includes:

- Monitoring Organization
- Monitoring apparatus and installation:
- Calibration
- Data collection:

	<p>- Data Management system</p> <p>The electricity exported and imported by the project will be continuously measured by the meters and it would be monthly reported. Calibrations of the meters will be carried out by a qualified third party periodically. Cross-check measurements include the comparison with the record document confirmed by EDL.</p> <p>The submitted calibration certificates were checked and it was confirmed that the calibrations are conducted periodically as specified in the PCN i.e. at least once in 5 years. No delay in calibration is observed and nometer change has taken place during the current monitoring period.</p>
Findings	No findings raised
Conclusion	<p>The verification team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0. During the remote audit assessment, the verification team interviewed the PP that the monitoring arrangements described in the monitoring plan are feasible within the project design.</p> <p>The monitoring parameter reported in MR adequately represents the parameters relevant to emission reduction calculation. The calibration report ensures the accuracy of the data reported. The number of CoUs generation is calculated based on this accurately reported data. The calculation was done using an excel sheet where all the parameters were reported. The emission factor for electricity is as per UCR standards. In the monitoring report, emission reduction calculations are correctly calculated and reported. The monitoring report meets the requirements of UCR project verification requirements.</p>

Start date, crediting period and duration

Means of Project Verification	The start date and crediting period of project activity was checked based on the commissioning certificate, purchase orders for the turbines, PCN , MR and detailed project report
Findings	No findings raised
Conclusion	The project has chosen crediting period start date as 01/09/2015. The crediting period is chosen as 01/09/2015 to 31/12/2023.

Positive Environmental impacts

Means of Project Verification	PP has not claimed any separate positive environmental impact. The project being renewable energy project will reduce fossil fuel use through replacement of the same
Findings	No findings raised
Conclusion	The project is a renewable energy project and reduces the environmental burden by reducing the dependence on fossil fuel based power plants.

Project Owner- Identification and communication

Means of Project Verification	The details of the wind turbines installed at 19.5 plan WTG's installed at different locations is given in the table below:
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Project Activity	Project Proponent	Power Plant Name	Village/State	Installed capacity in MW
1	LEAP GREEN ENERGY PRIVATE LIMITED	Akal	Sirwa, Jaisalmer Dist. Rajasthan India	2 X 1.25 MW
2	LEAP GREEN ENERGY PRIVATE LIMITED	Akal	Sangana, Jaisalmer Dist. Rajasthan India	3 X 1.25 MW
3	LEAP GREEN ENERGY PRIVATE LIMITED	Akal	Moda/Chord, Jaisalmer Dist. Rajasthan India	7 X 1.25 MW 3 X 1.5 MW

Vivid Emissions Reductions Universal Pvt. Ltd. is acting as an aggregator for these projects. The submitted commissioning certificates, agreements, joint meter readings confirm the ownership of the projects by the project owner.

Findings	No findings raised
Conclusion	The project owner was identified through a communication agreement signed between project owner and project aggregator. Equipment purchase orders and commissioning certificates were verified. Also, a legal document like Power Purchase Agreement/ Wheeling Agreement clearly establishes the project ownership. The identification and communication correctly meet the requirement of project verification and UCR project standard.

Positive Social Impact

Means of Project Verification	Project has provided temporary employment to local people during its installation and commissioning. Also post commissioning some of people have employed permanently and local people were engaged leading to social financial benefit to surrounding. Overall social impact of project implementation is positive on the surrounding area
Findings	No findings raised
Conclusion	Project has overall positive social impact

Sustainable development aspects (if any)

Means of Project Verification	PP has claimed SDG Goals 2, 4, 6, 8 & 13. SDG 2 is zero hunger by providing daily essentials to local people. SDG 4 is quality education by providing educational amenities to underprivileged and rural schools. SDG 6 is clean water and sanitation by providing RO water facility to local people. SDG 8 is decent work & economic growth and SDG 13 is climate action. These claims were checked on the basis of supporting documents, JMR & invoice, employment of the local people on the
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	project site and emission reduction calculations respectively.
Findings	CL 03 was raised and closed successfully.
Conclusion	All the requirements for claiming the SDG goals were checked thoroughly through the supporting documents, JMR & invoice provided by the PP. Site inspection was done to confirm the employment of the local people and emission reduction sheet was thoroughly checked to claim the SDG 8.

Internal quality control

>> The verifier confirms that,

- Due professional care has been taken while reviewing the submitted document.
- There is no conflict of interest as the verifier has no other engagement with either the aggregator or project owner directly or indirectly.
- Verification team consists of experienced personnel.

Project Verification opinion

Assessment team conducted documentation review the PCN against the UCR program verification standard version 2.0 and UCR project eligibility criteria version 6.0 and the UCR-PCN-FORM Version 1.0.

It is confirmed that the project is a newly built wind power project, located in India in the state of Rajasthan at Sirwa, Jaisalmer Dist. Rajasthan, Sangana, Jaisalmer Dist. Rajasthan, Moda/Chord, Jaisalmer Dist. Rajasthan India

The approximate coordinates of the project locations are

LOC_NO	Site Name	Village	LONGITUDE	LATITUDE
AK249	Akal	Sangana	26.80342	71.115722
AK279	Akal	Sangana	26.80147	71.132583
AK408	Akal	Sangana	26.78594	71.110167
AK223	Akal	Chord	26.76533	71.137806
AK30	Akal	Chord	26.70306	71.102083
AK31	Akal	Moda	26.70006	71.104361
AK32	Akal	Moda	26.69747	71.106583
AK33	Akal	Moda	26.69317	71.109056
AK26	Akal	Sirwa	26.68842	71.100056
AK35	Akal	Moda	26.68886	71.115833
AK36	Akal	Moda	26.68636	71.117194
AK25	Akal	Sirwa	26.68	71.106806
AK37	Akal	Moda	26.68203	71.117917
AK16	Akal	Sirwa	26.66081	71.090639
AK15	Akal	Sirwa	26.65869	71.094722

Assessment team performed a remote audit and confirmed that the location described in the PCN is accurate. The verification was performed on the basis of UCR requirements, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the PCN, MR and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

03 CL and 05 CAR were raised during the document review. After communication with the PP, the project participants revised the PCN and all CARs and CLs were closed.

The project correctly applies the approved baseline and monitoring methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources Version 21.0

The monitoring plan provides for the monitoring of the project's emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the project design, and that the project participants are able to implement the monitoring plan. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated emission reductions of 253,660 tCO₂eq during the four years, five months of its first renewable crediting period.

The review of the project design documentation and the subsequent follow-up interviews have provided assessment team with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all applicable UCR requirements. Assessment team thus requests the registration of the proposed UCR project activity.

Abbreviations

Abbreviations	Full texts
ACM	Approved Consolidated Methodologies
UCR	Universal Carbon Registry
PCN	Project Concept Note
MR	Monitoring Report
t	Tonne
ISO	International Organization for Standardization
DNA	Designated National Authority
CER	Certified Emission Reductions
NGO	Non-Governmental Organization
FSR	Feasibility Study Report
IEE	Initial Environmental Examination
CAR	Corrective Action Request
GHG	Greenhouse Gas
Gwh	Gigawatt Hours
Mwh	Megawatt Hours
CO ₂	Carbon Dioxide
CH ₄	Methane
N ₂ O	Nitrous Oxide

Competence of team members and technical reviewers

>> **Mr. Pankaj Kumar** worked as team leader – Bihar for South Asia Climate Proofing and Growth Development (CPGD) – Climate Change Innovation Programme (CCIP) supported by DFID that seeks to mainstream climate change resilience into planning and budgeting at the national and sub-national level in India, Pakistan, Nepal, and Afghanistan. Pankaj Kumar has worked previously with IL&FS Infrastructure Development Corporation and BUIDCO (Bihar Urban Infrastructure Development Corporation), Govt. Of Bihar as Environmental Specialist for WB & ADB funded projects. Prior to this, he worked with Carbon Check (UNFCCC accredited DoE), Johannesburg, RSA as Team Leader for

validation, verification of around 100 GHG projects in Asia, Africa, USA, Asia Pacific & Americas. Pankaj is accredited Lead Auditor, Validator, Verifier and Technical Expert for Sectoral Scope/Technical Area – 1.1, 1.2, 3.1 & 13.1 by UNFCCC DoE (Designated Operational Entity), APPLUS, Spain. He is also member of task force on climate change & human health, Health Department, GoB and on roster of UNICEF's WASH experts.

He is an experienced, qualified and result oriented Environment Professional having more than 14 yrs. Of relevant experience in Climate Change (Mitigation & Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Validation and Verification of GHG project under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He provides technical support for environmental investigative, consultative and remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon foot printing.

Pankaj Kumar is Masters in Environment Management from Forest Research Institute (University), I. C. F. R. E, Dehradun, which is Centre of Excellence in South East Asia for Forestry education & research and PGDEL from National Law School of India University, Bangalore (India).

>> **Mr. Vipul Jain** holds Bachelor of Technology from VIT University Vellore in 2020. He has gained valuable work experience as a site engineer at Light House Energy Developers, where he was employed from May 2020 to August 2022. Vipul holds an IRCA certification as an ISO 9001 Lead Auditor, demonstrating his expertise in quality management systems. He is well-versed in ISO 14064-1, ISO 14064-2, and ISO 14064-3, which are standards for greenhouse gas accounting and reporting. Furthermore, Vipul has received training in ISO 17029 and ISO 14065, highlighting his proficiency in environmental auditing and conformity assessment. He has also completed Clean Fuel Regulation training from Environment and Climate Change Canada, demonstrating his expertise in environmental management and sustainability.

>>**Mr. Vijayanand** is an experienced professional, an strategic HSE expert with 16 years of leadership in environmental consulting, audit, and regulatory compliance. He has successfully implemented HSE/ESG rules across Asia and Europe, managing corporate and site-level HSE functions. His roles have involved EIA, waste management, and policy development. He is leading HSE and ESG efforts at Hero Future Energies, demonstrating budgeting, due diligence, and international standard implementation skills. He has contributed to impactful projects like ESIA, renewable energy initiatives, and audits. He is also having accreditation as a Lead Auditor in CDM and Verra by various DOEs/VVBs, he is qualified by Enviance as a TL, TR and Technical expert in Sector 1.2, 3.1, 14.1.

>>**Ms. Swati Mahajan** is graduate in Environmental Engineering from Shivaji University, India and previously worked as an Environment Engineer at Eco Designs India Pvt. Ltd., Pune. She is adept in designing of landfill sites for solid waste management. She also has hands on experience in cost benefit analysis and preparation of DPRs for SWM projects. Currently working as as GHG assessor for projects under various GHG mechanisms like GCC, ICR, UCR and VERRA.

Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1	NA	Communication agreement		Project Owner
2	NA	Project Concept Note		Aggregator
3	NA	Monitoring report		Aggregator
4	NA	Emission reduction sheet		Aggregator
5	NA	Declaration on avoidance of double counting		Aggregator
6	NA	Commissioning Certificates for the wind power plants		Aggregator
7	NA	Power purchase agreement/wheeling agreement		Aggregator
8	NA	Joint Meter Readings/invoices for the complete monitoring period		Aggregator
9	NA	Calibration certificates for energy meters		Aggregator
10	NA	Purchase order for turbine/generator		Aggregator
11	NA	CEA database version 17		Central Electricity Authority, Government of India
12		UCR Program manual version 5 UCR COU standard version 6 UCR Verification standard version 2 UCR terms and conditions		Universal Carbon Registry
13	NA	CDM approved methodology – ACM0002 version 21.0		UNFCCC

Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	01
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
PP should submit the legal ownership document of the project activity as PP has acquired the running project. PP should clarify that the claimed credits are after the complete acquisition of the project activity. Kindly submit.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has submitted the evidence that validates the complete acquisition of the Project, proof of legal ownership of the project activity has been provided by the PP.			
Validation/Verification Team Assessment		Date:	04/08/2024

Project Verification Report

Assessment team has checked Legal agreement document and confirms that the evidence of acquisition is comprehensive and aligns with the requirements. The proof of legal ownership is duly authenticated and confirms that the PP has legitimate ownership of the project activity. Additionally, the documentation supports the claim that the credits being claimed are post-acquisition, thus fulfilled the criteria specified in the finding.
Hence, CL is Closed now.

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
In ER sheet correction factor is not applied for readings from May 2018 to March 2023. Kindly clarify			
Client/Responsible Party/Project Proponent Response		Date:	
As the calibration certificate provided by PP is dated April 2018 and calibration is required once every five years as per CEA India regulations, the correction factor is inapplicable for the period from May 2018 to March 2023. https://cea.nic.in/wp-content/uploads/2020/02/meter_reg.pdf			
Validation/Verification Team Assessment		Date:	04/08/2024
Justification provided by the project proponent is found acceptable CEA India's regulations, which stipulate calibration every five years. The calibration certificate issued in April 2018 adequately covers the entire period from May 2018 to March 2023. Consequently, the exclusion of the correction factor in the ER sheet is justified and aligns with regulatory requirements. which is further checked and verified by the Verification Team. Hence, CL is Closed now.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	03
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
PP has claimed SDG 2, 4 & 6 for the project activity. Supporting documents are to be provided for the same. Kindly submit.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has Provided the invoices and Photographs for SDG 2,4, & 6 for the Project activity. The invoices are issued to subsidiaries of Leap Green.			
Validation/Verification Team Assessment		Date:	04/08/2024
The submitted invoices and photographs have been reviewed and provide adequate evidence of activities contributing to SDGs 2, 4, and 6 which is further checked and verified by the verification team. Hence CL is Closed now.			

Table 2. CARs from this Project Verification

Project Verification Report

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	01
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
Few JMR are inconsistent with the provided supporting documents. Correction sought.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has Corrected the generation unit.			
Validation/Verification Team Assessment		Date:	04/08/2024
The corrected JMR have been reviewed, and the generation units now align with the supporting documents which is further checked and verified by the verification team. Hence, CAR is Closed now.			

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
In section A.5 of MR length & date of crediting monitoring period is inconsistent. Correction sought.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has corrected the MR length & date of crediting monitoring period.			
Validation/Verification Team Assessment		Date:	04/08/2024
During assessment it was found that PP has now revised the Section A.5 the Monitoring Report. The length and date of the crediting monitoring period now align correctly. Hence, CAR is Closed now.			

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	03
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
Technical specifications of S66-1250 KW are inconsistent with the provided supporting document. Correction sought.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has corrected the technical specifications of S66-1250 KW.			
Validation/Verification Team Assessment		Date:	04/08/2024
Project Proponent has updated technical specifications for the S66-1250 KW unit and now match the details provided in the supporting documents. Hence, CAR is Closed now.			

Project Verification Report

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	04
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
As per UCR MR template PP should attach ER sheet in MR & mention project emissions in detail. Kindly do the needful.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has attached the ER sheet mentioning Year wise in the MR. PP has mentioned the Project emission in detail.			
Validation/Verification Team Assessment		Date:	04/08/2024
Assessment team has checked ER sheet has been successfully attached to the Monitoring Report, and the project emissions are detailed as required. The inclusion of year-wise emissions data provides clarity and meets the requirements outlined in the UCR MR template. Hence, CAR is Closed now.			

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	05
Raised by:	Mr. Pankaj Kumar	Document Reference	MR
Finding Description		Date:	22/07/2024
PP should add the meter calibration details in MR. Kindly do the needful.			
Client/Responsible Party/Project Proponent Response		Date:	
PP has added the meter calibration details in MR.			
Validation/Verification Team Assessment		Date:	04/08/2024
The meter calibration details have been included in the Monitoring Report as required which further checked and verified by the verification team. Hence, CAR is Closed now.			

Table 3. FARs from this Project Verification

FAR ID	xx	Section no.		Date: DD/MM/YYYY
Description of FAR				
Project Owner's response				Date: DD/MM/YYYY
Documentation provided by Project Owner				
UCR Project Verifier assessment				Date: DD/MM/YYYY

