6.25 MW WIND POWER GENERATION PROJECT OF SALORA INTERNATIONAL LIMITED

Document Prepared By

LGAI Technological Center S.A. (Applus+ Certification)

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Prepared By	LGAI Technological Center, S.A. (Applus+ Certification)

Contact	Campus UAB – Ronda de la Font del Carme, s/n 08193 Bellaterra – Barcelona (Spain) Tel: +34 93 567 20 08 Fax: +34 93 567 20 01 www.appluscertification.com agustin.calle@applus.com carla.debat@applus.com
Approved By	LGAI Technological Center S.A. (Applus+ Certification) Agustín Calle de Miguel CDM Technical Manager Applus+ Certification B.U.
Work Carried Out By	Lead Auditor / Technical Expert: Sukanta Das

Summary:

Verification purpose: LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by Salora International Ltd to perform the 2nd periodic verification of the project activity "6.25 MW Wind Power Generation project of Salora International Ltd". The main purpose of this verification activity is to have an independent third party for the assessment of the project design, monitoring report to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements.

The project activity involves installation of 5 Wind Turbine Generators (WTGs), with rated capacity of 1.25 MW each with total capacity 6.15 MW. The project activity is located at Dhule district Maharashtra, India. The turbines had been manufactured, supplied and erected by M/s Suzlon Energy Ltd (SEL). The power generated is sold to the Maharashtra State Electricity Distribution Company Limited (MSEDCL). The power generated is being evacuated through HV transmission lines to the facility's switchyard and from the switchyard up to the state grid (NEWNE grid) at substation Khori substation.

Start date of the project activity is 31/07/2006 which is the date of commissioning of the first WTG (J104). This is the day on which first WTG was commissioned under the project activity which is as per commissioning certificate, registered VCS PD version 02 dated 31/08/2009.

The scope of the verification is the independent and objective review of the monitoring report (MR). The MR is reviewed against the relevant criteria (see above) and decisions by the CDM Executive Board and VCS executive board, including the approved baseline and monitoring methodology. The verification was based on the guidance given in the CDM Validation and Verification Standard for the project activities, version 02.0, review against registered PD and Final Validation report, CDM Project Standard for project activities, version 02.0; CDM Project

Cycle Procedure for project activities, version 02.0 and VCS program guideline and standard version 4.0

This is the 2nd monitoring under VCS and covers the activity from 01/08/2009 to 30/07/2016[1] (inclusive of both dates). The total emission reductions achieved for the project activity during the monitoring period has been 52,863 tCO_2e. The crediting period for VCS began on 31/07/2006 and ended on 30/07/2016. An undertaking from the project participant confirms that project will not claim any other scheme benefits for the concerned monitoring period.

A risk based approach has been followed to perform this verification activity. In the course of verification, 07 Corrective Action requests (CAR), 00 Clarification Requests (CLs) and 00 Forward action requests (FARs) were raised and successfully closed. The review of the Monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and PP have provided DOE with sufficient evidence to verify the fulfilment of the stated criteria of VCS.

The assessment team has employed a risk based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the MR. The main focus of the assessment team is to identify the significant risks for the project implementation and the generation of VERs. The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring report combined.

The only purpose of the verification is its usage during the issuance process as part of the VCS project cycle. Therefore, LGAI Technological Center S.A. (Applus+ Certification) can't be held liable by any party for decisions made or not made based on the verification opinion, which will go beyond that purpose.

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for site visit or document verifications. The entire documents checked/WTGs verification conducted to arrive at positive verification conclusions.

[1] VVB has been permitted by VERRA via letter dated 11/11/2020 to conduct 7 years of consecutive verification for the particular project. The permission is case by case basis and therefore the considered period in the MR is acceptable to the VVB.

1 INTRODUCTION

1.1 Objective

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by "Salora International Ltd." to perform the 2nd periodic verification of the "6.25 MW Wind Power Generation project of Salora International Limited" under VCS standard and guideline version 4.0. The objective of this verification activity is to have an independent third party for the assessment of the project design, monitoring report and final verification report and to ensure a thorough assessment of the project activity against the applicable CDM and VCS requirements. In particular;

- the project's baseline is assessed against "AMS-I.D, Version 13"
- the project's monitoring plan is assessed against "AMS-I.D, Version 13"
- the projects compliance with, the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria along with VCS guideline and standard version 4.0
- CDM validation and verification standard for project activities, Version 02.0
- CDM Project Standard for project activities, version 02.0
- CDM project cycle procedure for project activities, version 02.0
- VCS standard v4.0
- VCS program guideline v4.0

Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

1.2 Scope and Criteria

The scope is defined as an independent and objective review of the Monitoring report (MR) prepared as per the registered PD and registered approved methodology AMS-I.D version 13. The MR is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board and VCS standard and guideline version 4.0, including the approved baseline and monitoring methodology AMS-I.D version 13. The verification was based on the requirements in the CDM validation and verification standard for project activities, Version 02.0, CDM Project Standard for project activities, version

02.0, CDM project cycle procedure for project activities, version 02.0 and VCS program guideline and standard version 4.0

The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the Monitoring report. In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It invoices follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement. No sampling is used as the verification team has visited the WTGs along with the substations. The verification team has reviewed all the documents like commissioning certificates, JMR, invoices etc.

1.3 Level of Assurance

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for site visit or document verifications. The entire documents checked/Power plant verification conducted to arrive at positive verification conclusions.

1.4 Summary Description of the Project

The project activity involves generation of electricity through wind power plant with a capacity of 6.25 MW comprises 5 WTGs, each with capacity of 1.25 MW at Dhule district in Maharashtra, India. The purpose of the project activity is to generate electricity by the utilization of wind energy. In this process there is no consumption of any fossil fuel and hence it does not lead to any greenhouse gas emissions. The project activity was commissioned on 31/07/2006. The electricity generated from the project activity is sold to the Maharashtra State Electricity Distribution Company Limited (MSEDCL) through HV transmission lines to the facility's switchyard and from switchyard to the substation at Khori of state grid (NEWNE grid).

The monitoring period this VCS verification covered from 01/08/2009 to 30/07/2016 (inclusive of both dates) and the project activity is achieved 52,863 tCO_2e emission reductions during this monitoring period.

Start date of the project activity is the 31/07/2006. An undertaking has been submitted by PP for double counting would never happen with any other GHG program.

The timeline for Commission of the project activity is also checked by the assessment team. Assessment team checked the Commission of WTG with the commissioning Certificates and found correct. The project is implemented as per the description in the

registered PD. No event observed during the current monitoring period which can alter or deviate from the methodology requirement.

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification Process: The project assessment is based on the "CDM validation and verification standard for project activities, Version 02.0 and "VCS standard and program guideline version 4.0" and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the VCS project activity are appointed.

Once the project is received by the assessment team, the members of the assessment team carried out:

1. A desk review of the Monitoring report against the registered PD and final validation report;

2. Follow-up interviews with project participant;

3. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The prepared verification report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the VCS executive board.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ Certification has developed a specific checklist customized for the project. The checklist demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+Certificationhas composed a project assessment team in ac cordance with the appointment rules in the internal Quality Management System of Applus + Certification.

The composition of audit team shall be approved by the Applus + Certification ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Sukanta Das	LA/TE	YES	YES	NA	YES
Mr. Denny Xue	TR	YES	YES	NA	NA

The detail regarding the assessment team is provided below in this report as Appendix 3

Document review

The Monitoring report version 1 submitted by the PP was reviewed against the approved methodology, registered PD, final validation report and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in this report below in Appendix 1.

Follow-up interviews

An onsite audit was conducted by Applus+ Certification. Audit team performed interviews, telephone conferences with project stakeholders to confirm selected information and to resolve issues identified in the document review. The detail is provided in this report.

Resolution of Clarification and Corrective Action Request

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 03 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two

CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Internal quality control

As final step of a verification of the final documentation including the verification report and the checklist have to undergo an internal quality control by the technical review committee, i.e. each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of Interest.

After confirmation of the PP the positive verification opinion and relevant documents are submitted to the VCS board through the VCS web-platform

2.2 Document Review

The details of the document observed during the verification process are listed below in Appendix 1 of this report

2.3 Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Jiwarajka	Gopal Sitaram	PP Representative	16/12/2020	Implementation of the project and monitoring. Baseline emission calculation, achieved emission reduction for the monitoring period, monitoring process followed onsite	Sukanta Das
2	Ghose	Bibhushita	Consultant EKI Energy Service	16/12/2020	Baseline emission calculation, achieved emission reduction for the monitoring period, monitoring process followed onsite	

2.4 Site Inspections

Duration of on-site inspection: 16/12/2020				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	Assessment team checked the implementation of the project, Baseline emission, Emission reduction calculation, technical description of the project and Monitoring. Assessment team also checked that whether the monitoring plan as described in the VCS PD is actually practised onsite. Also assessment team checked any change in host country criteria which may affect the baseline of the project activity. Assessment team also had a discussion with Local stakeholders and checked grievance register placed onsite as per the continuous improvement measure of PP for the Local villagers.	Dhule, Maharashtra	16/12/2020	Sukanta Das

2.5 Resolution of Findings

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues from validation which need to be clarified for Applus+ Certification's positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 3 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Areas of validation and verification findings	No. of CL	No. of CAR	No. of FAR
Project design document and Monitoring report	00	00	00
Description of project activity	00	03	00
Application of selected baseline and monitoring methodology and selected standardized baseline			
Applicability of methodology and standardized baseline	00	00	00
Deviation from methodology	00	00	00
Clarification on applicability of methodology, tool and/or standardized baseline	00	00	00
Project boundary	00	00	00
Establishment and description of baseline scenario	00	00	00
Demonstration of additionality	00	00	00
Emission reductions	00	01	00
Calibration details	00	01	00
Monitoring plan	00	00	00
No Net harm assessment	00	01	00
Local stakeholder consultation	00	01	00
Others (please specify	00	00	00
Total	**00**	**07**	**00**

The list of findings and their resolution is presented in Appendix 2 of this report.

2.5.1 Forward Action Requests

This is 2nd periodic verification of the project activity and no FAR was raised from validation and 1st verification.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification, as Applus+ Certification holds the accreditation for Validation of SS/TA 1.2 Projects.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

Project activity has not participated under other GHG program.

3.2 Methodology Deviations

No deviation requested by PP.

3.3 Project Description Deviations

The PP has requested one deviation during current monitoring period as PP do not have JMRs available for the period from August 2099 to Dec 2010, June 2011, October 2013 to December 2013, Feb 2016, May 2016 and June 2016. As per registered monitoring plan "The net electricity supplied to grid is sourced from JMR /Monthly report and same is cross checked with invoices". However, for the period from August 2009 to December 2010, June 2011, October 2013 to December 2013, February 2016, May 2016 and June 2016, only Invoices are available with PP. Hence PP has considered Deviation for these periods only.

The minimum value of export from invoice and calculated value after subtracting maximum transmission loss from controller meter reading is considered for VCUs calculations. This deviation approach is conservative. Since JMR data and Invoices data are consistent for rest of period, the consideration of conservative values for non-availability of JMR for above mentioned period is appropriate. For further comparison, the controller data has been provided for monitoring period, is higher than JMR/Invoice values.

Furthermore, form November 2010 to December 2010 , there is no JMR as well as Invoices available with PP, hence for these 2 months no electricity data considered and VCUs are considered as zero for these 2 months. This is conservative approach for these 2 months period.

Moreover, the change of the monitoring practice onsite from the registered PDD do not have any impact on methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology and VCS requirements. Hence the deviation is this acceptable to the assessment team.

3.4 Grouped Project

This is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the onsite audit with PP representative, it was concluded that the project is implemented as per the requirement of the registered VCD PD and approved monitoring plan. During the current monitoring period, it was observed that no unforeseen incident/event evolved which can impact the operation of the project activity. The project undergone continuous operation and only scheduled maintenance is observed as per the manufactures specification which is acceptable to the assessment team.

Project location is confirmed by the assessment team through interview with PP representative and monitoring report. Assessment team also checked with the photograph of project site containing the latitude and longitude of the project site and confirm that the details as mentioned in the registered PD are correct. The WTG wise latitudes and longitudes are confirmed below:

Sr.No.	WTG	Location	Latitude	Longitude	Commissioning date
1	J104	R.S.No.59 & R.S.No.01 Village: Petle , Panhalipada, Isharde;Taluka Sakri; Dist Dhule; Maharashtra	N21 12 15.0	E74 19 22.9	31/07/2006
2	J106		N21 13 25.7	E74 19 06.5	03/08/2006
3	J107	R.S.No.138 , R.S.No.01 & R.S.No.16 ,Village: Petle ;Taluka Sakri; Dist Dhule; Maharashtra	N21 13 45.1	E74 19 06.8	01/08/2006
4	J108		N21 13 16.3	E74 18 59.8	01/08/2006
5	J109		N21 14 39.0	E74 18 55.7	01/08/2006

Assessment team checked the commissioning certificate and confirmed that the dates of Commission for the WTGs are correct.

The technical parameters have been verified with the name plates as well as with the technical specifications of WTGs and also cross checked from the technical manual of the Manufactures. Assessment team confirms that the technical parameters are consistent with the registered VCS PD.

The major technical specifications of the WTG are as follows:

ROTOR	
Rotor diameter	69.1 m
Hub height	74 m
Rotor swept area	3750 m^2
Rotational speed	13.2/19.8 rpm
Rotor material	GRP
Regulation	Pitch
OPERATIONAL DATA	
Cut-in wind speed	3 m/s
Rated wind speed	12 m/s
Cut-out wind speed	20 m/s
GENERATOR	
Type	Asynchronous generator, 4/6 poles
Rated output	250/1250 kW
Rotational speed	1010/1515 rpm

Operating voltage	690 V
Frequency	50 Hz
Protection	IP 56
Insulation glass	"H"
Cooling system	Air Cooled
GEARBOX	
Type	3 stage gear box, 1 planetary 2 helical
Manufacturer	Winergy
Gear ratio	1:77.848
Nominal load	1390 kW
Type of cooling	Oil cooling system
YAW DRIVE	
Yaw drive system	4 active electrical yaw motors
Yaw bearing	Polyamide slide bearing
TOWER	
Type	Tubular tower
Erection	With crane
Design standards	GL /IEC
Tower height	To suit hub height
Construction	Welded
CONTROL UNIT	
Control unit	Microprocessor control, with graphic backlight LCD display indicating operation conditions. Control includes thyristor switchgear watchdog for operation, monitoring, log with real time, local control and servicing interface. Optional remote monitoring and operation. UPS back-up system.
SAFETY SYSTEM	
Brake System 1	3 times independent pitch regulation
Brake System 2	Spring applied, hydraulically released disc brake

The operation and maintenance (O & M) of the project activity is being done by the Suzlon Global Services Limited. The same has been verified with the O & M Agreement.

The assessment team confirmed through onsite visit with PP representative that there is no proposed or actual change to the project design during this monitoring period. It was observed that the monitoring plan was implemented as per the registered VCS PD and

applied methodology AMS-I.D, Version 13. The organisational role and responsibility as mentioned in the registered PD is followed onsite. Calibration of meters were found delayed from the calibration frequency as mentioned in the registered VCS PD. Hence, PP has applied permissible limit (0.2%) of error factor in export and import of electricity for the delayed period. All the emergency preparedness as mentioned in the registered PD is followed onsite and no discrepancies were found regarding the same.

Further, the project activity has not participated under any other GHG program, apart from Verified Carbon Standard and REC. PP will not claim benefits of carbon emission reduction credits achieved through this project activity under any other GHG programme for the crediting period claimed under VCS. Moreover, the project has not generated any other form of environmental credit and a declaration for the same has been submitted to the assessment team and the same is acceptable.

The assessment team observed that the project is implemented in accordance with the registered VCS PD, final validation report and approved methodology and thus no clarification/deviation is sought.

Assessment team confirms following during the verification site visit:

1. Start date of the project is 31/07/2009.which is the date of commissioning of the J104 WTG as per registered VCD PD.
2. An undertaking letter dated: 06/01/2021 has been submitted by PP for double counting with any other GHG program. PP also has given a written declaration that project has not claimed other form of GHG credit for the concerned monitoring period.
3. Assessment team confirms that this is the 2nd monitoring under VCS and covers the activity from 01/08/2009 to 30/07/2016 (inclusive of both dates). Thus, VCS crediting period should be maximum of 10 years. 31/07/2006 is the start date and 30/07/2016 is the end date of the crediting period.
   The GHG credits from 01/08/2009 to 30/07/2016 will be claimed under VCS only. At any point of time during the crediting period, the project proponent will abide by the "Double Counting".
4. Assessment team checked and found that the Project proponent of the project activity is as below for the current monitoring period:

Organization name	Salora international Ltd.
Contact person	Mr. Gopal Sitaram Jiwarajka
Title	Vice Chairman & Managing Director
Address	D – 13/4, Okhla Industrial Area, New Delhi
Telephone	011 – 29207100
Email	gkj@salora.com

5. Assessment team also checked the details of other entity and found that Other entity involved in this project is

Organization name	**EKI Energy Services Limited**
Contact person	Bibhushita Ghose
Title	Assistant Manager(Operations)
Address	EnKing Embassy, Office No 201, Plot 48, Scheme 78, Part 2, Vijay Nagar, Indore- 452010, Madhya Pradesh, India.
Telephone	+91-7003202624
Email	bibhushita@enkingint.org

6. The quantified emission reduction calculation for the monitoring period is correct and conservative. Assessment team also compared actual VER with the estimated VER and found that the actual VER is 52,863 tCO_2e which is 20% lower than the estimated emission reduction 66,106 tCO_2e (9,440 tCO_2e/ 365 days* 2556 days) during this monitoring period which is due to lower wind flow pattern and low PLF attained by the wind power plant during the current monitoring period.

4.2 Safeguards

4.2.1 No Net Harm

No potential environment or socio-economic matter was found during the site visit. The project is renewable energy project and thus no negative impact observed onsite.

The project activity promotes environmental and socio-economic well-being as it results in zero GHG emissions due to installation and operation of clean, renewable energy technology for electricity generation. The report on "Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects" prepared by MNRE dated September 2013[2]. This report clearly mentioned that solar/Wind power project activity operations do not result in direct air pollution, noise pollution. Moreover, also as per the Central Pollution Control Board of India notification[3] solar/wind project falls under White Category and are practically non-polluting.

[2] https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf

[3] http://envfor.nic.in/sites/default/files/Latest_118_Final_Directions.pdf

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. For on-going stakeholder's communication, PP have maintained feedback/complaint register at the site office. All the stakeholders are happy with the implementation and operation of the project activity and no negative comments envisaged for the project activity. Complaint/suggestion/feedback register is maintained at site as a part of ongoing communication with stakeholders in line with clause 3.16.17 of VCS Standard, ver. 4.0 and appropriate actions taken time to time by PP.

Assessment team checked the grievance register provided by PP and found that local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the project. During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate

4.3 AFOLU-Specific Safeguards

This section is not applicable as this project activity is a non-AFOLU project activity.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the VCS PD. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the monitoring plan of the VCS PD
Findings	CAR 06 was raised during the verification process and closed successfully. Please refer Appendix 2 of this report for the detail closure of the CAR.
Conclusion	The baseline Emissions for a given year is calculated by multiplying the energy baseline (EB) with the regional grid emission factor. Formula Used:- Baseline emission: $BE_y = EG_y \times EF_{grid,CM,y}$ Where, BE_y = Baseline Emissions in year y; tCO_2 EG_y = Net annual electricity supplied to the grid by the project, MWh $EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the "Tool to calculate the emission factor for an electricity system" (tCO_2/MWh) Ex-ante parameters: The baseline emission factors are taken ex-ante in line with the registered VCS PD as well as cross checked with section validation report and found

	correct. Combined margin CO_2 emission factor of NEWNE grid ($EF_{grid,CM,y}$) is equal to 0.9075 tCO_2/MWh. The calculation approach was in line with the VCS PD. Values are as follows: $EF_{grid,OM,y}$ = 1.01 tCO_2/MWh $EF_{grid,BM,y}$ = 0.60 tCO_2/MWh $EF_{grid,CM,y}$ = 0.9075 tCO_2/MWh Ex-post parameter: As per the registered VCS PD and monitoring plan, EG_y (Net annual electricity supplied to the grid by the project) needs to be monitored. Net electricity supplied to the grid will be calculated based on the difference between measured values of "export" and "import "on the MSEDCL meter. The electricity generated by the WTGs is measured through a two-step procedure wherein the first metering is carried out continuously at the controller of the machine with on-board meter. The monitoring of the WTGs is done from a common monitoring station as a part of central monitoring system. Since this meter is common to project activity and other wind turbines that are not under this project activity, the apportioning of net electricity is done based on electricity generated from individual wind turbines. The export and Import of electricity generation values are sourced from the Monthly Report / Joint Monitoring Report submitted by MSEDCL The net electricity supplied the grid by the project activity during the monitoring period is 58,254.588 MWh. The verification team has checked the entire monthly JMR reports for the net electricity generated & supplied to the grid and crosschecked the same with the invoices raised by PP to the state Utilities for the monitoring period. All relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors. BE_y baseline emissions, tCO_2e BE_y = 58,254.588 MWh x 0.9075 tCO_2e/MWh = 52,863 tCO_2e (rundown values) As per applied methodology AMSI.D, Version 13, project emission is considered zero as the project activity involved wind power generation. Leakage: As per applied methodology AMS-I.D, version 13 Leakage emissions are not considered for the project activity. Hence, ERy= BEy-PEy-Ly=52,863 tCO_2e Verification team confirms that the monitoring has been carried out in accordance with the monitoring plan contained in the registered VCS PD.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Means of verification	The verification team checked the Calibration details of the monitoring meters with the calibration certificates.
Findings	CAR 07 and CAR 08 were raised during the verification process. The description of the CAR and its closure is described below in Appendix 2 of this report.
Conclusion	The metering is being carried out by electronic tri-vector bi-directional energy meter of accuracy class 0.2s(main & check) which measured both export and import. The main meter is installed at the state electricity board substation. This electricity meter is being used by state electricity board for JMR (Joint Meter Reading) electricity generation statement. The meters are monitored continuously and cumulative readings are taken at the end of the month by joint meter reading procedures. All the energy meters are under the control of state utility These are sealed by the state Unitalities. The calibration frequency of meters is annually. The Calibration details of meters are provided in Appendix 5 of this report. The meters are calibrated by the meter testing division of the state utility and PP does not have control on it. Calibration details of the monitoring meters checked with calibration certificates submitted by PP and found that calibration of meters are delayed during the period August 2009 to Sept 2012, June 2015 to July 2015 and in July 2016. The calibration results are within permissible limit and therefore, PP has applied error factor 0.2% for the period of delayed calibration in export and import of electricity. Hence, accepted by the assessment team. Calibration details are provided in Appendix 5 of this report. No unforced error observed and feeder wise WTGs location is also checked and found correct. Assessment team confirms that all the energy meters are Elster make and of accuracy class of 0.2s, are calibrated as per the national standards followed by the electricity board.

4.6 Non-Permanence Risk Analysis

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
NA	NA	NA	NA	NA

5 VERIFICATION CONCLUSION

Applus+ Certification has been engaged by Salora International Ltd. to perform the 2nd periodical verification of the "6.25 MW Wind Power Generation project of Salora International Ltd"

The Salora International Ltd is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's monitoring plan in the registered VCS PD and the applied methodology AMS-I.D - Version 13.0

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Further, the verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for site visit or document verifications. The entire documents checked/Power plant verification conducted to arrive at positive verification conclusions. The verification team can confirm that:

- the project is operated as planned and described in the project document;
- the monitoring plan is as per the applied methodology;
- the monitoring process in Monitoring Report is as per the PD
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned during verification process.
- Verification period: 01/08/2009 to 30/07/2016(inclusive of both days)

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
2009	2,573	O	0	2,573
2010	6,521	O	0	6,521
2011	7,885	O	0	7,885
2012	9,148	O	0	9,148
2013	8,497	O	0	8,497
2014	7,608	O	0	7,608

2015	5,574	O	0	5,574
2016	5,057	O	0	5,057
Total	**52,863**	**o**	**0**	**52,863**

APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

No.	Author	Title	References to the document	Provider
1	NA	Commissioning certificates of the WTGs	Commissioning certificates	Project participant
2	NA	Contract of the project participant with the DOE	Contract document signed between PP and DOE	Project participant
3	NA	The operational lifetime of the project activity from the manufacturer = (Technical specefications)	Manufacturer technical specifications	Project participant
4	NA	Registered PD *https://registry.verra.org/app/projectDetail/VCS/269*	NA	Project participant
5	NA	Calibration Certificates of energy meters	Calibration Certificates	Project participant
6	NA	Emission reduction sheet version 01	ER sheet version 01 dated 07/12/2020	Project participant
7		Emission reduction sheet version 02	ER sheet version 01 dated 05/03/2021	Project Participant
8	NA	Emission reduction sheet version 03	ER sheet version 03 dated 18/03/2021	Project participant
9	NA	MR version 01	07/13/2020	Project participant
10	NA	MR version 02	05/03/2021	Project participant
11	NA	MR version 03	18/03/2021	Project Participant
12	NA	Power Purchase Agreement (PPA)	PPA	Project Participant
13	NA	O & M Agreement	O & M Agreement	Project Participant
15	NA	!st Periodic Verification Report	Dated 05/01/2011	Project participant
16	NA	Tools/ guidelines used in the project activity • Glossary of CDM terms version 07 • VCS verification report template version 4.0	UNFCCC CDM/VCS web site	UNFCCC
17	NA	Monthly statement- JMR for the complete monitoring period	Monthly statement of electricity export and Import	Project participant

18	NA	Invoices for the complete monitoring period	Invoice	Project participant
19	NA	Declaration regarding no participation in other GHG program for the concerned monitoring period	Declaration dated 06/01/2021	Project participant
20	NA	Break Sown Details	NA	Project participant
21	NA	Approval letter of VERRA permitting VVB for the verification of seven (7) consecutive years	Dated 11/11/2020	Project Participant

APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

Project Implementation Status

CAR ID	01	**Date:** 17/12/2020
Description of CAR		
During the site visit and subsequent document review it was observed that the feeder wise location of the Wind turbines is missing in the MR. Corrective action is sought in the respective section of the MR. Corrective action is sought.		
Project participant response		**Date:** 15/02/2021
Feeder wise location of Wind Turbines have been provided.		
Documentation provided by project participant		
Updated MR.		
DOE assessment		**Date:** 16/02/2021
PP has included the feeder wise WTG connection in Section 1.7 of revised MR. **CAR closed**.		

CAR ID	02	**Date:** 17/12/2020
Description of CAR		
During review of Monitoring report DOE found that the following information's are missing in monitoring report; 1. Technical specification of WTG is not mentioned in MR. 2. Breakdown details of the Wind turbines are missing in the MR. Moreover, the supporting document regarding the breakdown details are not provided to the assessment team. Corrective action is sought.		
Project participant response		**Date:** 15/02/2021
.1. Technical specification is mentioned.		

2. Breakdown details are provided.
Documentation provided by project participant
Revised MR and Breakdown details
DOE assessment **Date:** 16/02/2021
1. Technical specifications of WTGs are now added in Section 3.1 of revised MR. 2. PP has included breakdowns details in Appendix-II of revised MR. Assessment team has reviewed the same and confirms that there is no major breakdown during the current monitoring period. CAR closed.

CAR ID	03	**Date:** 17/12/2020
Description of CAR		
1. During the review of documents submitted by PP, it was found that the following documents are missing; 2. Technical specification of the WTGs 3. O & M Agreement 4. Supporting document of commissioning date of WTG i.e. 31/07/2006 5. Undertaking in effect of no double counting of VCS emission reductions achieved will take place in other GHG Programs/Other forms credits for the concerned Monitoring period. PP is requested to the provide the above documents to assessment team.		
Project participant response		**Date:** 15/02/2021
1. Technical specifications is provided. 2. O&M Agreement are provided. 3. Commissioning Certificates are provided. 4. Undertaking in effect of no double counting of VCS emission reductions achieved by PP has been provided.		
Documentation provided by project participant		
Technical specifications, O&M Agreement, Commissioning Certificates and Declaration by PP regarding double counting.		
DOE assessment		**Date:** 16/02/2021
1. PP has submitted the technical specifications of WTGs the same is verified with the VCS PD and information provided in revised MR by the assessment team and found correct.		

2. O & M agreement is now submitted by PP. The same is checked by the assessment team and confirms that O & M agreement is signed between PP and Suzlon Global Services Limited for maintenances services. 3. PP has now provided commissioning certificate of all WTG. The assessment team has checked the same and confirms that WTG location No J104 was commissioned on 31/07/2006, J107,J108,J109 was commissioned on 01/08/2006 and WTG location No J106 was commissioned on 03/08/2006. 4. Undertaking in effect of no double counting of VCS emission reductions dated 06/01/2021 now submitted by the PP. PP declared that the project activity is not registered under CDM Scheme of UNFCCC and has not been rejected by any other GHG program. CAR closed.

Safeguards

CAR ID	04	**Date:** 17/12/2020
Description of CAR		
Supporting documents are not shared with DOE related to claim made under “No Net Harm” in MR against the requirement of sub para 3.16.1 of VCS standard.		
Project participant response		**Date:** 15/02/2021
As per the report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013, wind project activity operations do not result in direct air pollution, noise pollution.		
Documentation provided by project participant		
”Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” by MNRE		
DOE assessment		**Date:** 16/02/2021
PP has now submitted the supporting related to “No Net harm”. As per the report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013, wind project activity operations do not result in direct air pollution, noise pollution. **CAR closed.**		

Local Stakeholder Consultation

CAR ID	05	Date: 17/12/2020
Description of CAR		

Supporting documents of local stakeholders including mechanism for ongoing communication with Local Stakeholder as per requirement of Para 3.16.3 and 3.16.4 of the VCS standard V.4.0. Corrective action is sought.	
Project participant response	**Date:** 15/02/2021
The process of Local Stakeholder Consultation is continuous. During the current monitoring period, the project proponent kept grievance register at project site office and sought suggestions/feedback from local stakeholders including local community and local public administrative personnel; however, no major comments/feedbacks received from the stakeholders	
Documentation provided by project participant	
Revised MR	
DOE assessment	**Date:** 16/02/2021
PP has kept grievance register at project site office for ongoing mechanism of stakeholder consultation and sought suggestions/feedback from local stakeholders including local community and local public administrative personnel. No major comments received from the stakeholders. However, supporting document is not submitted to Assessment team. CAR OPEN.	
Project participant response	**Date:** 18/03/2021
The grievance register has been submitted now	
Documentation provided by project participant	
Grievance Register	
DOE assessment	**Date:** 19/03/2021
PP has now submitted the copy of grievance register. Few stakeholder has register complain regarding repair of street lights and the same was addressed by the PP. CAR closed.	

Accuracy of GHG Emission Reduction and Removal Calculations

CAR ID	06	**Date:** 17/12/2020
Description of CAR		
During the document review assessment team has observed following: 1. Copy of invoices for the month November 2010 and December 2010 are not provided also net energy export as per invoice is missing in Cell E21 and E22 of ER sheet 2. Copies of JMRs provided by PP are not related to this project. 3. Emission reductions values in ER sheet are rounded values PP is requested to do the round down values		

Corrective action is sought.	
Project participant response	**Date:** 15/02/2021
1. All the invoices has been provided for assessment 2. Correct JMR has been provided and highlighted for this particular project. 3. Rounddown has been done on emission reduction values.	
Documentation provided by project participant	
JMR, Invoices and ER Sheet	
DOE assessment	**Date:** 16/02/2021
1. PP has not submitted the complete JMRs for the monitoring period. Correction action is sought. CAR open	
Project participant response	**Date:** 18/03/2021
PP has requested deviation for the months where JMRs are not available. The Deviation approach has been clarified with Verra and taken their consent for same. (email dated 15/03/2021 from Elijah Umek EUmek@verra.org) As per registered monitoring plan "The net electricity supplied to grid is sourced from JMR /Monthly report and same is cross checked with invoices". However for period from August 2009 to Dec 2010, June 2011, October 2013 to December 2013, Feb 2016, May 2016 and June 2016, PP do not have JMRs available and only Invoices are available. Hence PP has considered Deviation for that months only. The months with deviation request are highlighted with Blue colour. The minimum value of export from invoice and calculated value after subtracting maximum transmission loss from controller meter reading is considered for VCUs calculations. This deviation approach is conservative. Since JMR data and Invoices data are consistent for rest of period, the consideration of conservative values for non-availability of JMR for above mentioned period is appropriate. For further comparison, the controller data has been provided for monitoring period and it is noted that controller data is higher than JMR/Invoice values.	
Documentation provided by project participant	
Revised ER Sheet with deviation approach	
DOE assessment	**Date:** 19/03/2021
PP clarified that PP do not have JMRs available for the period from August 2009 to Dec 2010, June 2011, October 2013 to December 2013, Feb 2016, May 2016 and June 2016, Only Invoices are available. Hence PP has considered Deviation for these months. The minimum value of export from invoice and calculated value after subtracting maximum transmission loss from controller meter reading is considered for VCUs calculations. Thus deviation approach is conservative. Also, JMR data and Invoices data are consistent for rest of period, For further comparison, the controller	

data provided for monitoring period is higher than JMR/Invoice values. Thus, the consideration of conservative values for non-availability of JMR for above mentioned period is appropriate. CAR closed.

Quality of Evidence to Determine GHG Emission Reductions and Removals

CAR ID	07	**Date:** 17/12/2020
Description of CAR		
The details information of monitoring equipment's such as serial number of meters, make, calibration date dates, due date of calibration are not provided in MR. Further, Calibration certificates are also not submitted to the assessment team. Corrective action is sought for the same.		
Project participant response		**Date:** 15/02/2021
All metering details and calibration certificates have been provided.		
Documentation provided by project participant		
Calibration certificates.		
DOE assessment		**Date:** 16/02/2021
PP has now included the details information of electricity meters i.e. Serial number of meters, make, calibration date etc in Appendix-I of revised MR and also submitted the calibration certificate of energy metres. The same are checked by the assessment team and observed that there were delay in calibration of meters for the period Aug 09 to Sept 12, June 15 to July 15 and July 16 delayed calibration result is within permissible limit. Hence PP has applied maximum permissible error factor of 0.2% in export and import of energy to arrive net electricity exported to grid and calculation of emission reductions. Hence acceptable to DOE. **CAR closed.**		

APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Lead Auditor/Technical Expert	OR	Das	Sukanta	TQC-Outsourced entity	Yes	Yes	Yes	Yes

Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer (TR)	EI	Xue	Mr. Denny	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Agustín	Applus+ Certification

Short CVs of the Team:

1. **Mr. Sukanta DAS**, has done M. Sc. in (Electronics and Photonics) and M. Tech in (Energy technology) from Tezpur Central University/ Indian Institute of technology Bombay in India. He is a certified lead auditor for ISO 14001 EMS LA and ISO 9001 QMS LA from International registry for Certified Auditors (IRCA) and Certified Lean Management practitioner from Quality Council of India (QCI). He has more than Nine (9) years of working experience at TUV NoRD/ Re-consult/CRA/APPLUS certifications under various categories of projects stating from Renewable to waste to supercritical projects. He was JI/ CDM Lead Assessor in TUV NoRD and was involved in more than 100 CDM validation and verifications activities in Gold Standard, VCS, CDM projects as a team leader/technical reviewer / validator / verifier covering the sectoral scope 1, 13 technical areas 1.2/1.1/13.1. Currently he is associated with

True Quality Certifications Private Limited and is empanelled with APPLUS certification to carry out GHG audit.

2. **Mr. Denny Xue** (Master Degree in Environmental Engineering, Bachelor Degree in Thermal Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment. He is based on Shanghai. He has 1.5 years of work experiences in CDM project development. Before he joined Applus+ LGAI, he has been worked for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development.

APPENDIX 4: ABBREVIATIONS

Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CM	Combined Margin
CMS	Central Monitoring system
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming potential
RBI	Reserve Bank Of India
PP	Project Participant

APPENDIX 5: CALIBRATION DETAILS OF THE METERS

Meters are Elster make with 0.2s accuracy. Calibration details of the WTGs installed in the project activity is provided below:

WTG ID	Feeder Name	Meter No.	Main/Check Meter	Date of Calibration
J104	Jamde Feeder 08	4738079	Main Meter	25/09/2012,29/06/2013, 05/06/2014,16/07/2015, 28/09/2016
J104	Jamde Feeder 08	4738067	Check Meter	25/09/2012,29/06/2013, 05/06/2014,16/07/2015, 28/09/2016
J106, J108, J109	Jamde Feeder 03	04862465	Main Meter	25/09/2012,29/06/2013, 05/06/2014, 03/07/2015, 09/03/2017
J106, J108, J109	Jamde Feeder 03	04725796	Check Meter	25/09/2012,29/06/2013, 05/06/2014, 03/07/2015, 09/03/2017
J107	Jamde Feeder 10	04890562	Main Meter	25/09/2012, 28/06/2013, 05/06/2014, 10/07/2015, 13/09/2016
J107	Jamde Feeder 10	04863441	Check Meter	25/09/2012, 28/06/2013, 05/06/2014, 10/07/2015, 13/09/2016

The calibration frequency is annual. There is delay in calibration for period Aug 2009 to Sept 2012, June 2015 to July 2015, July 2016 and delayed calibration result is within permissible limit. Hence error factor of 0.2% accuracy class is applied for delayed calibration period.