

VERIFICATION REPORT OF PARQUE EÓLICO MALDONADO

Document Prepared By

AENOR

Contact Information

6 Génova. 28004 Madrid – Spain

www.aenor.com

Project Title	<i>Parque eólico Maldonado</i>
Version	<i>2</i>
Report ID	<i>2016/136/VOL/36</i>

Report Title	<i>Verification Report of Parque Eólico Maldonado</i>
Client	<i>R del Sur S.A.</i>
Pages	<i>37</i>
Date of Issue	<i>27-02-2017</i>
Prepared By	<i>AENOR INTERNACIONAL S.A.U.</i>
Contact	<i>6 Génova. 28004 Madrid – Spain. medioambiente@aeonr.com, (+34) 914 329 891</i>
Approved By	<i>Marcelino Pellitero Martinez</i>
Work Carried Out By	<i>Lead Verifier: Richard Daniel Gonzáles Toledo Verifier: Freddy Alejandro Garro Flores Technical Reviewer: Marcelino Pellitero Martinez</i>

Summary:

R del Sur S.A. has commissioned has AENOR INTERNACIONAL S.A.U. (hereinafter AENOR) to perform a verification of VCS Project Activity “Parque Eólico Maldonado” in Uruguay (hereafter “project activity”) for the period from 10-April-2014 to 30-September-2016.

The project involves the construction and operation of a 50 MW wind farm, located at the department of Maldonado, in the Southeast region of Uruguay. The energy generated by the project is supplied to the national grid of Uruguay. The emission reductions are thus claimed as Voluntary Carbon Units (VCU) and verified on the basis of the Verified Carbon Standard (VCS) version 3.6 for GHG emission reduction and removal projects.

The verification consisted of the following three phases: i) a desk review of the Monitoring Report ii) On-site Visit; iii) the resolution of outstanding issues and internal technical review followed by the issuance of the final verification report and opinion.

In the course of the verification process 02 corrective actions and 03 clarifications were raised, all have been successfully closed. The list of Corrective Actions Requests (CAR) is presented in Appendix 2. AENOR confirms that the project is implemented in accordance with the validated VCS-PD and the monitoring plan; and then, claimed emissions reductions are calculated without material misstatements.

AENOR has performed the verification of “Parque Eólico Maldonado” on the basis of all issues and criteria of VCS Standard version 3.6 and VCS Program Guide version 3.6 for VCS projects and also on the criteria given to provide for consistent project operations, monitoring and reporting. Hence, in AENOR’s opinion the project correctly applies the baseline and monitoring methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”; Version 16.0.0 and meets the relevant requirements for the CDM Methodology, Voluntary Carbon Standard requirements and the relevant host country criteria.

Bases on reviewed information, AENOR is able to certify that the emissions reductions from the “Parque Eólico Maldonado” project during the period from 10-April-2014 to 30-September-2016, amount to 245,861 tonnes of CO₂e.

Table of Contents

1	Introduction	5
1.1	Objective	5
1.2	Scope and Criteria	5
1.3	Level of Assurance.....	5
1.4	Summary Description of the Project	6
2	Verification Process	6
2.1	Method and Criteria.....	6
2.2	Document Review	7
2.3	Interviews	7
2.4	Site Inspections	8
2.5	Resolution of Findings.....	8
2.5.1	Forward Action Requests	9
2.6	Eligibility for Validation Activities	9
3	Validation Findings.....	9
3.1	Participation under Other GHG Programs	9
3.2	Methodology Deviations	9
3.3	Project Description Deviations	9
3.4	Grouped Project	10
4	Verification Findings.....	10
4.1	Project Implementation Status	10
4.2	Accuracy of GHG Emission Reduction and Removal Calculations	11
4.3	Quality of Evidence to Determine GHG Emission Reductions and Removals	13
4.4	Non-Permanence Risk Analysis.....	13

5	Verification conclusion	14
	APPENDIX 1: REFERENCE LIST	16
	APPENDIX 2: VCS VERIFICATION PROTOCOL	17
	APPENDIX 3: RESOLUTION OF CORRECTIVE ACTION AND CLARIFICATION REQUESTS.....	36

1 INTRODUCTION

1.1 Objective

The objective of the verification is the review and ex-post determination by a Validation/Verification Body (VVB) of the GHG emission reductions that have been achieved as a result of the implementation of the project during a defined verification period. It includes the determination and evaluation that:

- The project activity has been implemented and operated as per the registered VCS-PD /1/ and that all physical features (technology, project equipment, and monitoring) of the project are in place;
- The VCS monitoring reports /2/3/ and other supporting documents provided are complete and verifiable and in accordance with applicable VCS requirements;
- The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology; and
- The data is recorded and stored as per the monitoring methodology.

1.2 Scope and Criteria

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- to verify that reported GHG emission data is sufficiently supported by evidence.

AENOR has conducted the verification based on the requirements of VCS Standard, version 3.6 /4/ and VCS Program Guide version 3.6 /5/ for VCS projects, and employed a rule-based approach as criteria, focusing on the identification of significant reporting rules and the reliability of project monitoring.

Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

1.3 Level of Assurance

Indicate the level of assurance of the verification report.

The verification report is based on the registered VCS-PD and the VCS Monitoring Reports (MR) and supporting evidences made available to the verifier and information collected through performing interviews and during the on-site inspection.

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent AENOR's instructions. The technical review was performed by a technical reviewer(s) qualified in accordance with AENOR's qualification scheme for VCS validation and verification.

The verification team and the technical reviewers consist of the following personnel:

Name	Position in the team
Richard Daniel Gonzáles Toledo	Lead Verifier
Freddy Alejandro Garro Flores	Verifier
Marcelino Pellitero Martinez	Technical Reviewer

The verification has been planned and organized to achieve a reasonable level of assurance, with respect to material errors, omissions, and misrepresentations.

1.4 Summary Description of the Project

The project activity involved the construction and operation of a wind farm, located at the department of Maldonado, in the Southeast region of Uruguay. This wind farm consists of 25 wind turbines with 2 MW each, resulting in total installed capacity of 50 MW. The energy generated is conducted to a substation that elevates the voltage from 150 kV to be suitable for grid injection. A substation is located next to the windfarm and acts as a connection point for generated energy.

The project activity started commercial operation on April 10th 2014 and since then has been in continued operation. During the monitoring period presented from April 10th 2014 to September 30th 2016, the total GHG emissions reductions amounted to 245,861 tCO₂e, due to the displacement the electricity generated in fossil fuel fired power plants of the grid.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification was performed through means of the following three phases in accordance with the requirements of the registered VCS-PD, the applied methodology /6/, and the VCS Standard version 3.6 and other relevant VCS requirements.

- I. A desk review of the monitoring report and all support documents.
- II. Follow-up interviews with project stakeholders and site inspection.

III. The resolution of outstanding issues and the issuance of the verification report and statement.

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

- The emission reduction calculations and the relevant data records.
- The calibration and maintenance records for the monitoring instruments
- The management systems to support the project operation and monitoring.

2.2 Document Review

The VCS monitoring report version 2 /3/ and the emission reduction calculations spreadsheet /7/, were assessed as part of the verification. In addition the registered VCS-PD /1/ in particular the baseline estimations and the monitoring plan, and the registered VCS validation report /8/, as well as relevant documents, was reviewed. A detailed documents reviewed are listed in Annex 1 of the report.

2.3 Interviews

A site visit to the project activity was undertaken on 17-18/10/2016 to assess the implementation and operation of the project activity; review evidence and interview key personnel to confirm evidence associated with the data generation, emission reduction calculation and reporting of the monitoring parameters. The visit included a meeting with VCS consultants to assess the emission reduction calculation.

The key personnel interviewed and the main topics of the interviews are summarized in the table below:

Person/Position	Interview topics
Carlos Alvares/Consultan Pablo Lorente/Project Director	• Flows for generating, aggregating and reporting the monitoring parameters. • Crosscheck between information provided in the monitoring report and data from the monitoring system, log books, purchase records, handwritten records. • Monitoring report and emission reduction calculations. • Testing of monitoring equipment and observation of monitoring practices. • Calibration of monitoring equipment.

	• Running of specific checks and trials on data sources and data management practices where non conformities are detected. • Clarifications related to monitoring procedures. • Sufficiency of monitoring plan. • Reliability of internal and external data. • Internal data quality control.
--	---

2.4 Site Inspections

On 17-18/10/2016, AENOR's verification team carried out an on-site visit. Also, the on-site visit included interviews with key personnel to confirm evidence. The main tasks covered during the on-site visit include, but are not limited to:

- An assessment of the implementation and operation of the project activity as per the registered VCS-PD.
- A review of information flows for generating, aggregating and reporting the monitoring parameters.
- A cross-check between information provided in the Monitoring Report and data from other sources such as database, surveys, WBTs or similar data sources.
- A check of the monitoring procedure and observations of monitoring practices against the requirements of the VCS-PD and the selected methodology.
- A review of calculations and assumptions made in determining the GHG data and emission reductions.
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

As an outcome of the verification process, verification team can raise different types of findings (corrective actions, clarifications or other findings) according to the rules and requirements governing the VCS Program.

A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met; or where a non-conformance arises the verification team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- a) Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- b) Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- c) Issues identified in a FAR during verification to be verified during verification have not been resolved by the project participants.

Forward Action Requests (FARs) are issued for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

The project participants were requested to address all verification findings and finally provided the verification team with sufficient evidence to determine that the applicable VCS requirements have been met. The project participant modified the initial monitoring report to resolve the verification team concerns and resubmitted a final version. AENOR has prepared this report based on the final monitoring report.

To guarantee the transparency of the verification process, the concerns raised by AENOR are fully documented in a detailed list of all CARs, CLs and FARs (including the responses provided by the PP) in Annex 2 of this report.

2.5.1 Forward Action Requests

No forward action requests were raised during this verification.

2.6 Eligibility for Validation Activities

Not applicable

3 VALIDATION FINDINGS

The project was validated by AENOR (VCS validation report (report number 2014/136/VOL/21), dated 31-March-2016 /8/ and it was registered under the VCS registration reference No - 1308. This is the first verification assessment for the monitoring period from 10-April-2014 to 30-September-2016 by AENOR. No deviations were requested for this monitoring period

3.1 Participation under Other GHG Programs

The project is not registered under any other GHG programs.

3.2 Methodology Deviations

No methodology deviations were requested during this monitoring period

3.3 Project Description Deviations

No project description deviations were requested during this monitoring period

3.4 Grouped Project

Not applicable

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

AENOR verified that the project is fully implemented according to the description included in the validated VCS-PD.

The verification team confirmed through visual inspection and document review that all physical features of the VCS project activity, including data collection systems and storage systems have been implemented in accordance with the validated VCS-PD. The technical diagrams of the project activity /9/ were reviewed and an installed capacity of 50 MW was confirmed.

The audit team has confirmed the project started operations on April 10th 2014, which is the date of commencement for the commercial operation /10/ of the project; this fact was verified against records for sold electricity (Electricity invoices)/11/ and raw data /12/ provided by ADME. The crediting period and the monitoring start on same date. The project is completely operational which was confirmed by means of the on-site visit.

During the first monitoring period (10-April-2014 to 30-September-2016), the project has operated continuously and satisfactorily, with few no significant interruptions, it was verified against Operation and Maintenance reports /13/.

The verification team confirmed that the monitoring plan of the validated project activity is in accordance with the applied methodology ACM0002 “Consolidated methodology for grid-connected electricity generation from renewable sources” version 16.0.0 on the following reasons:

- During the desk review monitoring parameters included in the applied methodology were compared with the ones included in the monitoring plan of the validated VCS-PD and they were found consistent.
- During the verification process no need was identified for a revision of the monitoring plan.
- No other relevant aspects for monitoring not included in the methodology were identified.

No deviations from the monitoring methodology were identified during the verification process.

In addition, monitoring of reductions in GHG emissions has been implemented in accordance with the monitoring plan. The monitoring mechanism is effective and reliable. In accordance with the monitoring plan, only one parameter is as follows:

EG_{facility,y}: Quantity of net electricity generation supplied by the project plant to the grid in year y: This data is measured continuously and at least recording monthly. Data measured by meters are cross-checked with the records /12/ from the electronic supervisory system of the wind farm and records for sold of electricity /11/. During the verification it was detected that the calibration was not conducted as established in the monitoring plan (biannual); then, the calibration has been delayed. PP has provided the certificates from UTE /14/15/ that are consistent with the calibration information included in the latest monitoring report:

Meter	Serial Number	Accuracy	Calibration Date
Main Meter	30023003	0.2S	01/08/2014
			14/12/2016
Backup Meter	3970828	0.5S	23/07/2014
			14/12/2016

The calibration has been implemented after the monitoring period in consideration; as a consequence a conservative approach has been adopted as follow:

The maximum error for the main meter as per manufacturer is 0.2% /16/. In the last calibration, the maximum error detected is 0.17%, less that allowed. Hence a 0.2% deviation has been considered in the referred period. Therefore, the calculations for net energy have been made subtracting 0.2% form the outgoing energy measurement, and adding 0.2% to the incoming energy measurement.

AENOR confirms that applied conservative approach to calculate emission reductions (maximum error between manufactures and calibration certificate) during the period that que meters was operating without of calibration is properly applied and emission reduction result is conservative.

Overall the project activity was implemented as described in the validated VCS-PD. Verification team confirmed that the component project implementation is in accordance with the project description contained in the validated VCS-PD. No material discrepancies were identified between project implementation and the project description.

Provide an overall conclusion regarding whether the project has been implemented as described in the project description.

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

The monitoring has been carried out in accordance with the provision of monitoring plan; the verification team reviewed if:

- The monitoring of reductions in GHG emissions resulting from the proposed VCS project activity were implemented in accordance with the monitoring plan contained in the validated VCS-PD.
- The monitoring plan and the applied methodologies had been properly implemented and followed by the project participants.

- All parameters stated in the monitoring plan, the applied methodologies and relevant VCS requirements had been sufficiently monitored and updated.
- The responsibilities and authorities for monitoring and reporting were in accordance with the responsibilities and authorities stated in the monitoring plan

The monitoring system and all applied procedures are in compliance with the monitoring plan contained in the validated VCS-PD and the applied methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”; Version 16.0.0, based on the information included in the final monitoring report, there are several procedures for data collecting depending on the methodology applicable for each step of the project.

Based on the information in the validated VCS-PD, the baseline emission factor ($EF_{grid,CM,y}$) was ex-ante determined according to version 16.0.0 of the approved methodology ACM0002 and is fixed for the crediting period. The value of baseline emission factor used in the Monitoring Report is 0.5765 tCO₂e/MWh, which is the same as the one in the validated VCS-PD.

Net energy is calculated subtracting the incoming energy from the outgoing energy meter by the SMEC meter. This measurement is cross-checked with invoices from UTE. In addition, from January 8th 2016 till December 14th 2016, the meter was not calibrated as per the planned schedule. The maximum error of the meter has been considered from January 8th 2016 to September 30th 2016 being the end of the verification period.

The maximum error for the main meter as per manufacturer is 0.2%. In the last calibration, the maximum error detected is 0.17%, less than allowed. Hence a 0.2% deviation has been considered in the referred period. Hence calculations have been made, subtracting 0.2% from the outgoing energy measurement, and adding 0.2% to the incoming energy measurement, thus assuring the most conservative approach.

The different data sources mentioned above permit the comparison of the data and the detection of any deviation between them. In the below table are addressed the values reported and verified for VCUs calculation.

According to the formulae and procedure, defined in the monitoring plan the Baseline Emissions (BE_y) is calculated as follows:

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

$$ER_y = BE_y - PE_y - L_y$$

As per applied methodology, project Emissions (PE_y) and Leakage (L_y) are equal to 0, therefore:

$$ER_y = BE_y$$

Following table summarize emission reductions achieved by project activity

Year	EG _{facility,y} (MWh)	EF _{grid,CM,y} (tCO ₂ e/MWh)	Emission Reductions (tCO ₂ e)
2014	127,929.81	0.5765	73,747
2015	178,905.58	0.5765	103,133
2016	119,660.95	0.5765	68,981

The total emissions reductions calculated for the monitoring period are 245,861 tCO₂e.

PP provided the spreadsheets used for calculating the GHG emission reductions. AENOR has reproduced all these calculations to obtain the same results, hence, they are deemed quantified correctly in accordance with the project description and applied methodology; consistent with the evidence provided and cross-checked by AENOR. Furthermore, appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed, and assumptions and emission factor correctly applied and justified.

4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

AENOR was able to confirm that the calculations are based on authentic data from energy regulators, on the monthly systematic monitoring of the electricity supplied by the project and records of sold electricity. The spreadsheets used to calculate the VCU calculations and all figures were tracked, checked and found to be consistent. The monitoring information is stored as per the monitoring plan.

The quality of supporting evidences submitted to the VVB for verification is adequate and found to be verifiable. The ER calculation spreadsheet /7/ and other supporting documents related to quality and maintenance were checked by the verification team during the site visit to confirm the authenticity of the documents and to check the correctness of the calculation.

The verification team can confirm that sufficient evidence is available for the whole monitoring period and the same is verifiable and that the data collection system meets the requirements of the monitoring plan and the applied methodology according to the assessment carried out on site and in the document review.

Verification team confirms that the quality of evidence to determine the GHG reductions and removals produced was found satisfactory. The detailed information flow with the roles and responsibilities of the individuals and the monitoring system have been provided in section 3.3 of the VCS-MR.

4.4 Non-Permanence Risk Analysis

Not applicable

5 VERIFICATION CONCLUSION

AENOR has performed the verification of the emission reductions that have been reported for the “Parque Eólico Maldonado” (VCS ID 1308) for the period 10-April-2014 to 30-September-2016.

Verification is performed in accordance with the relevant requirements for VCS rules.

AENOR conducted the verification on the basis of the approved consolidated baseline methodology ACM0002 version 16.0.0, the monitoring plan contained in the validated VCS-PD and the final monitoring report. The verification included i) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and ii) the collection of evidence supporting the reported data.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these risks, AENOR planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that the reported amount of GHG emission reductions for the period is fairly stated.

It is AENOR's responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period 10-April-2014 to 30-September-2016 based on the reported emissions reductions in the Monitoring Report for the same period.

In AENOR's opinion the GHG emissions reductions of the “Parque Eólico Maldonado” for the period 10-April-2014 to 30-September-2016 are fairly stated in the final monitoring report.

The GHG emission reductions were calculated correctly on the basis of the approved consolidated baseline methodology ACM0002 version 16.0.0 and the monitoring plan contained in the validated VCS-PD.

AENOR is able to certify that the emission reductions from the “Parque Eólico Maldonado” during the period 10-April-2014 to 30-September-2016 amount to **245,861** tonnes of CO2 equivalent, detailed as below.

Verification period: From [10-April-2014 to 30-September-2016]

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

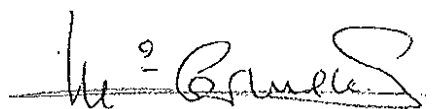
Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
10-April-2014 to 31-December-2014	73,747	0	0	73,747
01-January-2015 to 31-December-2015	103,133	0	0	103,133
01-January-2016 to 30-September-2016	68,981	0	0	68,891
Total	245,861	0	0	245,861

Madrid, 27/02/2017



Richard Daniel Gonzales Toledo

Team Leader



Mª Carmen Gonzalez Galan

Authorised person

APPENDIX 1: REFERENCE LIST

- /1/ VCS-PD version 2.6, dated on 31 March 2016.
- /2/ VCS Monitoring Report, Version 1, dated on 21 September 2016
- /3/ VCS Monitoring Report, Version 2, dated on 21 February 2017
- /4/ VCS Standard, version 3.6, dated on 19 October 2016
- /5/ VCS Program Guide, version 3.6, dated on 19 October 2016
- /6/ CDM methodology ACM0002: “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”; Version 16.0.0, dated on 28 November 2014
- /7/ Emission reduction calculation spreadsheet
- /8/ VCS Validation Report, version 02, dated on 31 March 2016.
- /9/ Line diagrams
- /10/ Commissioning act issued by UTE
- /11/ UTE Energy Sold Invoices
- /12/ Electricity Raw Data
- /13/ Operation and Maintenance reports
- /14/ Calibration certificates of Main Meter, dated on 01/08/2014 and 14/12/2016
- /15/ Calibration certificates of back up meter, dated on 26/07/2014 and 14/12/2016
- /16/ Technical characteristic of meters (Data Sheet)

APPENDIX 2: VCS VERIFICATION PROTOCOL

Checklist Question	Ref	Comments	Draft conclusion	Final conclusion
1. Remaining issues from validation and/or previous verification				
Check (in case of 1 st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR) Have they been addressed appropriately?	1.1.	There are not any pending issues from validation report.	OK	OK
Check (in case of further periodic verifications) whether there are any open issues indicated in previous verification (e.g. FAR) Have they been addressed appropriately?	1.2.	Not applicable since this is the first verification process.	N/A	N/A
Check if there have been any deviations from the applied methodology or project description deviations. If any, make sure that they are considered during verification	1.3.	There have not been any previous deviations from the methodology or project description.	OK	OK
2. Compliance of the project implementation with the validated project description				
Has the VCS project activity been implemented as per the validated PD?	2.1.	Yes. The project is a wind farm of 50 MW with 25 wind turbines of 2 MW. During the visit the audit team verified the facilities; it is in place and implemented in accordance with the description of VCS- PD	OK	OK

Are all physical features of the VCS project activity proposed in the validated PD, in place? All figures and features included in the validated PD shall be checked during the on-site visit. Any discrepancy found shall be reported and the project description deviation procedure shall be applied.	2.2.	Yes. All facilities and features stated in the VCS-PD are in place, this issue was verified during the on- site inspections.	OK	OK
Have the project participants operated the VCS project activity as per the validated PD?	2.3.	Yes. PP has operated the project as stated in the VCS-PD, following the registered monitoring plan.	OK	OK
Project installation should be finished at time of initial verification in so far as the project should be ready to generate emission reductions afterwards. It shall be clearly described the starting date of operation and the progress of the project activity? Is the implementation delayed? What were the reasons for the delay?	2.4.	The project started commercial operation on April 10th 2014 as established in the PD.	OK	OK
Check whether the project boundaries are still in compliance with the ones indicated by the PD.	2.5.	The project boundaries are still in compliance with the descriptions established in the VCS-PD	OK	OK

Was an on-site visit conducted? If not, justify the rationale of the decision.	2.6.	Yes the on-site visit was conducted on 17-18/10/2016. The visit included a meeting with VCS consultants and project site inspections.	OK	OK
Identify if there have been any significant incidents, deviant operation modes and/or downtimes of the equipment? Consider e.g. interviews with operational personnel, operational log sheets and analysis of performance data.	2.7	No significant incidents or deviation of operation modes were identified during the on-site visit	OK	OK
Is the information (data and variables) provided in the monitoring report different from that stated in the PD? Has it caused an increase in estimates of the emission reductions in the current monitoring period or is highly likely to increase the estimates of emission reductions in the future monitoring periods?	2.8	The audit team has not detected any information that could increase the emission reductions in next monitoring periods.	OK	OK

Find out, if relevant monitoring personnel have been exchanged? In case of changes, assure that the implemented monitoring procedures have not been affected.	2.9	During the on-site were identified that there were some relevant changes of personnel involved in the monitoring. CL 1: PP is requested to provide evidence of training activities, regarding changes of personnel involved in the monitoring, as established in the registered monitoring plan. PP has provided sufficient evidence regarding this issue. CL 1 is closed Only qualified Personnel are involved in monitoring procedures of project activity.	OK	OK
Find out whether relevant legislation with effect on the project activity in the host country has been changed.	2.10	No change in legislation was detected.	OK	OK
3. Deviations				
Methodology Deviations Has any methodology deviation been applied during this monitoring period? If applied, does the MR provide a description of the deviation in accordance with applicable VCS standard?	3.1	No deviation is requested for this monitoring period	OK	OK

Does the MR include a justification on the following matters: - Impact the conservativeness of the quantification of GHG emission reductions or removals - Relation only to the criteria and procedures for monitoring or measurement, and do not relate to any other part of the methodology	3.2	Not applicable	N/A	N/A
Project Description Deviations Does the MR indicate if any project description deviations have been applied during this monitoring period? If does, have been explained the reasons for the deviation?	3.3	No applicable	N/A	N/A
Does the MR include an explanation whether the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario?	3.4	No applicable	N/A	N/A
4. Monitoring Report – General				

Is the monitoring report (and other supporting documents) provided complete in accordance with latest applicable version of the VCS Program Guide?	4.1.	Yes, the monitoring report is complete.	OK	OK
Has the Monitoring Report been completed using the valid version of the applicable VCS monitoring report form?	4.2.	CAR 1: The monitoring report has not been completed in accordance with instructions of VCS Monitoring Report Template: • Project ID has not been included • The relevant implementation dates (eg, dates of construction, commissioning, and continued operation periods) have not been included. • The total GHG emission reductions in this monitoring period has not been included • Calibration dated, for meter that records net energy has not been included. PP has updated the Monitoring report in accordance with VCS requirements. CAR 1 is closed	CAR 1	OK
Is the monitoring period in line with a) the crediting period and/or b) previous monitoring periods?	4.3	Yes, this first monitoring period started on 10/04/2014 which is the start of the crediting period.	OK	OK
Is the Monitoring Report free of misstatements and is it transparent, clear and unequivocal?	4.4.	Yes. Latest version of monitoring report is clear and unequivocal.	CAR 1	OK
5. Compliance of the monitoring plan with the monitoring methodology.				

Is the validated monitoring plan of the proposed VCS project activity in accordance with the applied methodology?	5.1.	Yes, the monitoring plan is in accordance with the applied methodology.	CAR 1	OK
Are there any monitoring aspects of the project activity that are not specified in the methodology, particularly in the case of small-scale methodologies (e.g. additional monitoring parameters, monitoring frequency and calibration frequency)?	5.2.	Registered monitoring plan establishes all the measurements and procedures for gathering reporting information for the verification, which are in line with applied methodology	OK	OK
6. Compliance of monitoring activities with the validated monitoring plan				
Is the monitoring of reductions in GHG emissions to result from the proposed VCS project activity implemented in accordance with the monitoring plan contained in the PD or the monitoring plan?	6.1.	The monitoring of reduction has been implemented as per the monitoring plan. Monitoring registers of electricity generation have been provided and it is in accordance	CAR 1	OK
Have the monitoring plan and the applied methodology been properly implemented and followed by the project participants?	6.2.	Yes, the monitoring plan has been properly implemented by the PP.	CAR 1	OK

Have all parameters stated in the monitoring plan, the applied methodology and relevant VCS requirements been sufficiently monitored and updated as applicable (Project emission, baseline emission, leakage, management and operational system and environmental and social parameters)	6.3.	Yes, all parameters have been sufficiently monitored.	CAR 1	OK
Are the responsibilities and authorities for monitoring and reporting in accordance with the responsibilities and authorities stated in the monitoring plan?	6.4.	Yes all responsibilities and authorities are described in the MR, they are in accordance with registered monitoring plan	OK	OK
Data and parameters fixed ex ante Have all parameters fixed in the validated PD and used during this monitoring period sufficiently detailed in the MR? Check that only parameters that are used in the ERs calculation corresponding to the current monitoring period are included in the Monitoring Report.	6.5	Yes all fixed parameters are properly described in the MR in accordance with registered VCS-PD	OK	OK
7. Data and parameters monitored				
7.1. $EG_{facility,y}$	7.1.	“Quantity of net electricity generation supplied by the project plant to the grid in year y”		

Measurement / Determination method Describe how the monitoring parameter was measured / determined. Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the validated monitoring plan of the PD and the applied methodology.	7.1.1.1.	CAR 2: Monitored net energy is not in accordance with crediting period due to the fact that it is calculated from 01/04/2014; while crediting period starts on 10/04/2014. Net energy is properly monitored, in accordance with crediting period. CAR 2 is closed CL 2: According to QA/QC procedures, the measurement results of net energy, recorded monthly, will be used for cross check with records of sold electricity and/or with DTE. Then, PP is requested to provide the crosscheck. Monthly invoices have been provided; also, the comparison between net energy, from meters, and invoices has been provided. The crosscheck has been performed as established in the. CL 2 is closed The net electricity supply by the project is measured by SMEC meter, located in the connection and measure point, along with the substation in project land. There is a main and back up meter which is utilized only if there is any problem with the main meter. The hourly measured reading by SMEC meters is recorded monthly by plant personnel. No failure has been detected in the monitoring equipment.	CAR 2 CL 2	OK
---	-----------------	--	--	------------------

Monitoring Equipment Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the VCS and is equipment controlled and calibrated in accordance with the monitoring plan?	7.1.2.	The system has two meters, the main meter, class 0.2, and back up meter, class 0.5, installed in parallel with the main meter. During the verification a delay on calibration has been identified; therefore PP has applied a conservative approaches to calculate emission reductions. <table border="1" data-bbox="688 367 1549 716"> <thead> <tr> <th>Meter</th><th>Type</th><th>Serial number</th><th>Accuracy</th><th>Calibration date</th></tr> </thead> <tbody> <tr> <td rowspan="2">M1 Main meter</td><td rowspan="2">ITRON SL7000</td><td rowspan="2">30023003</td><td rowspan="2">0.2S</td><td>08/01/2014</td></tr> <tr> <td>14/12/2016</td></tr> <tr> <td rowspan="2">M2 Backup meter</td><td rowspan="2">EMH LZQJ-XC</td><td rowspan="2">3970853</td><td rowspan="2">0.5S</td><td>13/07/2014</td></tr> <tr> <td>14/12/2016</td></tr> </tbody> </table>	Meter	Type	Serial number	Accuracy	Calibration date	M1 Main meter	ITRON SL7000	30023003	0.2S	08/01/2014	14/12/2016	M2 Backup meter	EMH LZQJ-XC	3970853	0.5S	13/07/2014	14/12/2016	CL 2 CAR 2	OK
Meter	Type	Serial number	Accuracy	Calibration date																	
M1 Main meter	ITRON SL7000	30023003	0.2S	08/01/2014																	
				14/12/2016																	
M2 Backup meter	EMH LZQJ-XC	3970853	0.5S	13/07/2014																	
				14/12/2016																	
Accuracy	7.1.3.	No inaccuracies were detected.	CL 2	OK																	
In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.			CAR 2	OK																	
Monitoring results Are monitoring results consistently recorded as per approved frequency?	7.1.4.	Yes, monitoring results has been recorded monthly.	CL 2 CAR 2	OK																	

Quality assurance and quality control procedures Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?	7.1.5.	Crosscheck evidence has been provided; therefore, QA/QC procedures have been applied.	CL 2 CAR 2	OK
Verification Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies, QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring	7.1.6.	Raw data from energy meters has been verified. Also, SCADA data and DTE invoices from regulator have been verified. No inconsistencies were found.	CL 2 CAR 2	OK
8. Compliance with the calibration frequency requirements for measuring instruments				

Has the calibration been delayed and the calibration has been implemented after the monitoring period in consideration (results of delayed calibration are available)? If so, which conservative approach has been adopted: a) Applying the maximum permissible error of the instrument to the measured values taken during the period between the schedule date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any error, or if the error is smaller than maximum permissible error, or b) Applying the error identified in the delayed alibration test, if the error is beyond the maximum permissible error.	8.1	CL 3: PP is requested to provide the calibration certificates of Electricity meters used for measure the net energy. Calibration certification has been provided CL3 is closed A delayed on calibration has been detected during the verification. From July 1st 2016 till December 14th 2016, the meter was not calibrated as per monitoring plan. A conservative approach has been applied to calculate emission reductions: The maximum error of the meter has been considered from July 1st 2016 to September 30th 2016.	CL 3	OK
--	------------	---	--------------------	------------------

Has the error been applied: a) In a conservative manner, such that the adjusted measured values of the delayed calibration has result in fewer claimed emission reductions?, and b) For all measures taken during the period between the scheduled date of calibration and the actual date of calibration.	8.2	The maximum error for the main meter as per manufacturer is 0.2%. In the last calibration, the maximum error detected is 0.17%, less than allowed. Hence a 0.2% deviation has been considered in the referred period. Hence calculations have been made, subtracting 0.2% from the outgoing energy measurement, and adding 0.2% to the incoming energy measurement, thus assuring the most conservative approach.	CL 3	OK
If the results of the delayed calibration are not available, or the calibration has not been conducted at the time of the verification; has been request to the project participants to conduct the required calibration? If so, has the project participants calculated the emission reductions conservatively?	8.3	The calibration had not been conducted as established in the monitoring plan (biannual). The previous calibration was conducted on 08/07/2014 and the last on 14/12/2016. Therefore, PP has applied a conservative approach to calculate emission reductions (maximum error between manufactures and calibration certificate) during the period that the meters were operating without of calibration.	CL 3	N/A
If it is not possible for the	8.4	Not Applicable	CL 3	N/A

project participant to conduct the calibration at a frequency specified by either the applied methodology, guidance provided by the Board, and/or validated monitoring plan due to reasons beyond the control of project participants; has been followed the requirements				
deviations in accordance with VCS Standard?				
If calibration frequency for measuring equipments are not specified neither the monitoring methodology nor the monitoring plan; has the equipments been calibrated in accordance with specifications of the local/national standards, or as manufacturer's specification, or international standards?	8.5	Not Applicable	CL 3	N/A
9. Assessment of data and calculation of greenhouse gas emission reductions				
It is assessed if GHG emission reductions achieved by the proposed VCS project activity are calculated applying the selected methodology.	9.1.	Yes, the emission reduction calculation has been carried out as per applied methodology.	CAR 2	OK

Is a complete set of data for the specified monitoring period available? Are available evidences sufficient both in terms of frequency and in covering the full monitoring period? Are the source and the nature of evidences identified (external or internal, oral or documented, etc.)?	9.2.	This issue will be assessed after CAR 2 is closed	CAR 2	OK
Whether data were not available	9.3.	Not applicable since all data is available.	N/A	N/A
because activity levels or non-activity parameters were not monitored in accordance with the validated monitoring plan has the most conservative assumption theoretically possible been made?				
Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spreadsheet shall be used. All applied formulae must be visible.	9.4	Yes, the calculation spreadsheet of emission reductions is traceable.	OK	OK
Is the spreadsheet with the emission reductions calculations provided complete?	9.5.	Yes, a complete set of the net electricity is available and covers the entire monitoring period.	CAR 2	OK

Has information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?	9.6.	Yes, all information stated in the monitoring report has been cross-checked	CL 2 CAR 2	OK
Have calculations of baseline emissions, project emissions and leakage, as appropriate, been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document?	9.7.	Yes, the emission reduction calculation has been carried out in accordance with the monitoring plan.	CAR 2	OK
Have any assumptions used in emission calculations been justified?	9.8.	All assumption has been justified.	CAR 2	OK
Have appropriate emission factors, IPCC default values and other reference values been correctly applied?	9.9.	Yes, correct values from IPCC guidelines are used	OK	OK
10. Quality Management; defined organizational structure, responsibilities and competencies Internal QA/QC and document control				
Management System Have the GHG data monitoring system and all VCS monitoring procedures been implemented? Do they comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology?	10.1.	Yes, the management system complies with the monitoring systems.	CL 2 CL 3 CAR 2	OK

Roles and Positions Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented, from raw data generation to submission of the final data. Check further if only duly qualified personnel is involved in the monitoring procedures.	10.2.	Yes, all roles are clearly defined.	CL 1	OK
Trainings Check if initial trainings have been carried out, in case deemed necessary.	10.3.	Yes, Initial training has been carried out.	CL 1	OK
Troubleshooting procedures Assess whether troubleshooting procedures have been implemented.	10.4.	Yes, all procedures are document, relevant evidence were provided to the verification team	OK	OK
Maintenance procedures Are appropriate maintenance procedures in place?	10.5.	Operation and Maintains procedures are properly document in the Power plant, relevant evidence were provided to the verification team	OK	OK
Reporting procedures Check how reports with relevance for the later determination of emission reductions will be generated. Is the frequency of emissions reports established?	10.6.	The frequency of emission reductions are not established in the VCS-PD	CL 2 CL 3 CAR 2	OK

Internal QA/QC Assess whether there are any procedures in place on when, where and how checks and reviews are to be carried out, and what evidence needs to be documented? (This might include spot checks by a second person not performing the calculations over manual data transfers, changes in assumptions and the overall reliability of the calculation processes.)	10.7.	Procedures to check the monitoring registers have been provided.	CL 2 CL 3 CAR 2	OK
Data collection and data processing systems Check the eligibility of used systems. Does data collection system meet the requirements of the monitoring plan as per the applied methodology?	10.8.	Yes, data collection system meets the requirements of the monitoring plan.	CL 2 CL 3 CAR 2	OK
Data archive Check whether all data of monitoring parameters are recorded and archived according to the monitoring plan and the approved methodology.	10.9.	All monitoring data have been recorded as per monitoring plan.	CL 2 CL 3 CAR 2	OK

Data protection Assess whether appropriate measures have been take in order to avoid unintended or intended manipulation of the measured data.	10.10	The access to the databases is controlled and available only for authorized personnel.	CL 2 CL 3 CAR 2	OK
--	-------	--	--	-----------

APPENDIX 3: RESOLUTION OF CORRECTIVE ACTION AND CLARIFICATION REQUESTS

Clarifications and corrective action requests by Verification team	Ref. to Prot.	Summary of project owner response	Verification team conclusion
CAR 1: The monitoring report has not been completed in accordance with instructions of VCS Monitoring Report Template: • Project ID has not been included • The relevant implementation dates (eg, dates of construction, commissioning, and continued operation periods) have not been included. • The total GHG emission reductions in this monitoring period has not been included • Calibration dated, for meter that records net energy have not been included.	4.2.	The monitoring report has been modified to comply with the instructions of VCS Monitoring Report Template: - The Project ID has been included. - A table with the relevant implementation dates has been included. - The value of total GHG emissions reduction has been included. - The calibration dates have been included.	MR has been completed accordingly. CAR 1 is closed
CAR 2: Monitored net energy is not in accordance with crediting period due to the fact that it is calculated from 01/04/2014; while crediting period starts on 10/04/2014.	7.1.1	The monitoring net energy has been modified in accordance with crediting period.	The period for calculating the net energy is properly considered. CAR 2 is closed
CL 1: PP is requested to provide evidence of training activities, regarding changes of personnel involved in the monitoring, as established in the registered monitoring plan	2.9	Evidences of training activities have been provided to the verification team.	Properly evidence has been provided. CL 1 is closed
CL 2: According to QA/QC procedures, the measurement results of net energy, recorded monthly, will be used for cross check with records of sold electricity and/or with DTE. Then, PP is requested to provide the crosscheck.	7.1.1	The invoices of sold energy used for cross check the generated energy have been provided to the verification team.	Monthly invoices have been provided; also, the comparison between net energy, from meters, and invoices has been provided. Crosschecked are in accordance with monitoring plan CL 2 is closed
CL 3: PP is requested to provide the calibration certificates of Electricity	8.1	The calibration certificates of electricity meters have been	During the monitoring period a delay of

meters used for measure the net energy.	provided to the verification team. As stated in the monitoring report, The monitoring plan has suffered a deviation due to a lack of authorization from ADME to do the calibration of energy meters. It was stated in the monitoring plan that calibrations should have been done each two years. The first calibration was made on July 2014, and the second one was supposed to be made on July 2016. However, an authorization from ADME is needed to remove the seal of the meters, and this hasn't been obtained until October 2016. The calibration has been conducted in December 2016. A conservative approach has been applied to calculate emission reductions	calibration has been identified. PP has calculated the emission reduction in a conservative manner, for the period when the meters were operating without of calibration. CL 3 is closed
--	---	---