

Verification and Certification Report

Second periodic verification

Report for:

Powerica Limited

Verification of CDM project for
Wind power project at Gujarat by Powerica Limited
(UNFCCC Ref No. 3632)

Monitoring Period:
01/05/2011 to 31/12/2012 (Inclusive of both the
days)

LRQA Reference : MUM-0061951, version 05.1
Date : 05/04/2013
Work carried out by : Sanjay Kumar Agarwalla

Work verified by : Imran Ustad
Michiaki Chiba



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1 Executive Summary

Lloyd's Register Quality Assurance Limited has been contracted by Powerica Limited, representing the project participants (PP), to undertake the second periodic verification of the registered project activity "Wind power project at Gujarat by Powerica Limited" project reference number 3632 covering the second monitoring period from 01/05/2011 to 31/12/2012. The verification has been performed by document review based on the Monitoring Report Version 01.1 dated 31/01/2013, on-site assessment and interviews with the stakeholders, resolution of outstanding issues and issuance of the verification report.

The project intends to reduce greenhouse gas (GHG) emissions by utilizing wind resource to generate electricity in the state of Gujarat, India by the installation of 9 wind turbine generators (WTG) in Kutch, Gujarat. The electricity generated by the project activity is being supplied to North East West North-East (NEWNE) Grid of India. It reduces the impact of power generation from the conventional fossil fuel based power plants, thereby leading to reduction of GHG emissions.

The fulfilment of the requirements as set forth in the Article 12 of the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC), the modalities and procedures for a CDM and relevant decisions of the Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol (COP/MOP) and the Executive Board of the CDM (CDM-EB) has been evaluated and the conformance to the verification requirements were confirmed based on the given information. A risk based approach was taken to conduct the verification, and corrective action requests (CARs) and clarifications (CLs) were issued for relevant actions by the PP.

The verification team identified, through the verification process, 1 CAR and 5 CLs. The PP has taken actions and submitted to LRQA the revised monitoring report and supporting evidence. The verification team, through the verification process, confirmed that the emission reductions achieved by the project activity during the monitoring period are correctly calculated in the monitoring report Version 06 dated 03/04/2013 based on the approved monitoring methodology and the monitoring plan of the registered PDD. Therefore LRQA certifies the emission reductions amounting to 46,523 tCO₂e and requests the CDM-EB to issue the CERs.

Lloyd's Register Quality Assurance Ltd
Hiramford
Middlemarch Office Village
Siskin Drive
Coventry CV3 4FJ
United Kingdom

Registered office:
Lloyd's Register
71 Fenchurch Street
London EC3M 4BS
United Kingdom



Abbreviations

BE	Baseline emissions
CAR	Corrective action request
CDM	Clean Development Mechanism
CDM-EB	Executive Board of Clean Development Mechanism
CDM M&P	Modalities and procedures for a clean development mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CL	Clarification
COP/MOP	Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol
DOE	Designated Operational Entity
ERs	Emission reductions
FAR	Forward action request
GEDA	Gujarat Energy Development Agency
GETCO	Gujarat Energy Transmission Company Limited
GHG	Greenhouse gas
GUVNL	Gujarat Urja Vikas Nigam Limited
IPCC	Intergovernmental panel on climate change
JMR	Joint Meter Reading
KP	Kyoto Protocol of the United Nations Framework Convention on Climate Change
kW	Kilo Watt
kWh	Kilo Watt hour
LR	Lloyd's Register
LRQA	Lloyd's Register Quality Assurance Limited
MP	Monitoring plan
MR	Monitoring Report
MW	Mega Watt
MWh	Mega Watt hour
NA	Not applicable
NEWNE	Northern, Eastern, Western, and North-Eastern Grid
ODA	Official Development Assistance
PDD	Project design document
PGVCL	Paschim Gujarat Vij Company Limited
PLF	Plant Load Factor
PP	Project participant
PPA	Power Purchase Agreement
PS	Project Standard
QA/QC	Quality Assurance / Quality Control
SLDC	State load dispatch center
tCO ₂ e	Tonne of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard



2 Introduction

The project participant (PP) represented by Powerica Limited has contracted with Lloyd's Register Quality Assurance Limited (LRQA) to undertake the second periodic verification of the proposed project activity "Wind power project at Gujarat by Powerica Limited" covering the monitoring period from 01/05/2011 to 31/12/2012. This report summarises the findings through the verification process that has been conducted on the verification requirements of the CDM.

The verification has been undertaken by the team formed of the qualified personnel of LRQA as follows:

Sanjay Kumar Agarwalla	LRQA India	Team Leader, CDM Lead Verifier and Sector Expert
Imran Ustad	LRQA India	Technical Reviewer and Sector Expert
Michiaki Chiba	LRQA Ltd	Decision Maker

Personnel being engaged in CDM project verification are qualified based on the established procedures of LRQA to assure the resource requirements that satisfy all the requirements of competence criteria of the CDM accreditation standard for operational entities. LRQA is designated as an operational entity and holds the full responsibility on decision-making regarding the verification in accordance with the accreditation requirements of the CDM-EB. The certificate of appointment of the team personnel is attached to this report.

2.1 Objective

Through the verification activities, the verification team was to confirm that:

- 1) the project activity has been implemented and operated as described in the validated and registered PDD and that all physical features of the project activity are in place
- 2) the monitoring report (MR) and other supporting documents provided are complete and verifiable, and in accordance with applicable CDM requirements
- 3) actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan (MP) and the approved methodology; and
- 4) the data is recorded and stored as per the monitoring methodology.

The verification followed the requirements of the current version of the CDM Validation and Verification Standard (CDM VVS) to ensure the quality and consistency of the verification work and the report.

2.2 Scope

The scope of verification was an independent and objective review of the monitored emission reductions (ERs) against the verification requirements of the CDM M&P. LRQA followed a risk-based approach in the verification, focusing on the identification of significant risks for implementation of the registered monitoring plan and the resultant emission reductions. The verification statement shall become final after final review by the decision maker of LRQA Ltd.



2.3 GHG Project Description

Project title	Wind power project at Gujarat by Powerica Limited
CDM reference	3632
Date of registration	18/09/2010
Applied methodology	AMS.I. D, Version 15
Crediting period	18/09/2010 to 17/09/2017 (Renewable)
Project location	Kutch district, Gujarat, India
Project participants	Powerica Limited
Monitoring period	01/05/2011 to 31/12/2012

3 Methodology

3.1 Verification approach

LRQA's verification of the project documentation provided by the project participant was based on both quantitative and qualitative information on emission reductions. Quantitative information comprises the reported numbers in the monitoring report submitted to LRQA. Qualitative information is made up of the information on internal management controls, calculation procedures, procedures for transfer of data, frequency of emission reports, and review and internal audit of calculations.

As well as the monitoring documentation provided by the project participants, LRQA also reviewed:

- a) the registered PDD and the monitoring plan and the corresponding validation report
- b) the applied monitoring methodology
- c) relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board
- d) any other information and references relevant to the project's resulting emissions reductions.

LRQA also confirmed that the Monitoring Report is as per the standardised format.

LRQA also confirmed that this is second periodic verification and also there was no FAR raised during the first verification. During the validation of the project activity one FAR was raised and it was closed during the first periodic verification.

3.2 Desk review

The verification was performed primarily based on the review of the monitoring report and the supporting documentation. This process included:

- 1) a review of data and information presented to verify their completeness
- 2) a review of the MP and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the QA/QC procedures, and



- 3) an evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report version 01.1 dated 31/01/2013 was initially reviewed and LRQA requested the PP to present the supporting information and documents and such additional information and documents were also reviewed by LRQA. The documents reviewed by LRQA are listed in Appendix A.

Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by LRQA. The documents reviewed by LRQA are listed in Appendix A. LRQA reviewed the final version of the monitoring report version 06 dated 03/04/2013 to confirm that all changes agreed had been incorporated.

3.3 On-site assessment

An on-site assessment was conducted as a part of verification activity and involved:

- 1) an assessment of the implementation and operation of the CDM project activity as per the registered PDD
- 2) a review of information flows for generating, aggregating and reporting of the monitoring parameters
- 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the MP
- 4) a cross-check between information provided in the MR and data from other sources
- 5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology
- 6) A review of calculations and assumptions made in determining the GHG data and ERs, and
- 7) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters.

The detail of the on-site assessment is as follows:

Date	Location	Team Members on site	Subjects covered	Persons interviewed
21/02/2013	Project site and Vandhiya and Shikarpur substations	Sanjay Kumar Agarwalla	<ul style="list-style-type: none"> •Project implementation and management •Site tour •Data management and reporting systems •Data verification •QA/QC, management systems •Data archiving •Environmental and social issues •Issues with local stakeholders 	<ol style="list-style-type: none"> 1. Jignesh V, Regional Manager, Vestas 2. Jitesh Visaradia, Sr. Manager, Powerica Ltd. 3. Sridharan S, Sr Engineer, Powerica Ltd. 4. Murugesh S, Sr Engineer, Vestas 5. Ramji, Local Stakeholder 6. Ayub, Local Stakeholder



For details of all the findings of the desk review and site visit, please refer to the Verification Protocol and Findings in Appendix C.

3.4 Quality of evidence

When verifying the report emission reduction, LRQA ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source documents that form the basis for assumptions and other information underlying the GHG data are shown in Appendix A.

When assessing the audit trails, LRQA also examined:

1. whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. the source and nature of the evidence
3. if comparable information was available from sources other than that used in the monitoring report, LRQA cross-checked the monitoring report against the other sources to confirm that the stated figures were correct. The sources and the data referenced are shown in Appendix A.

LRQA also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology.

3.5 Resolution of clarification and corrective action requests

LRQA, during this verification, identified issues related to the monitoring, implementation or operation of the proposed CDM project activity that could impair the capacity of the proposed CDM project to achieve emission reductions or influence the reporting of emission reductions. LRQA has identified, discussed and concluded these issues within the Verification Protocol and Findings – Appendix C.

LRQA has raised a Corrective Action Request (CAR) if one of the following occurred:

1. A non-compliance with the monitoring plan or methodology is found in the monitoring and reporting that has not been sufficiently documented by the project participants, or the evidence provided to prove conformity is insufficient
2. Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants
3. Mistakes have been made in applying assumptions, data or calculations in relation to emission reductions that will impact upon the quantity of emission reductions
4. Issues identified in a FAR during validation or previous verification(s) to be verified during verification have not been resolved by the project participants.

LRQA has raised a Clarification Request (CL) if information was insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

All CARs and CLs raised by LRQA during this verification have been resolved. If this was not completed, the ERs cannot be certified and recommended for issuance to the CDM Executive Board.



3.6 Internal quality control

The technical review by a qualified person independent from the verification team, and a review by an authorised decision maker are conducted before the submission of the verification report to the PP and before requesting the issuance of the verified ERs.

4 Verification protocol and conclusions

LRQA has undertaken this verification in accordance with the verification protocol (which is based on the Clean Development Mechanism Validation and Verification Standard Version 03.0). This section provides an overview of the verification activities and general conclusions. Further details in relation to each element of the protocol and to each finding are shown in Verification Protocol and Findings – Appendix C.

The protocol is structured based on the main verification requirements as follows:

- compliance of the project implementation with the registered project design document
- compliance of the monitoring plan with the monitoring methodology, including applicable tool(s)
- compliance of monitoring activities with the registered monitoring plan
- compliance with the calibration frequency requirements for measuring instruments
- assessment of data and calculation of emission reductions.

4.1 Compliance of the project implementation with the registered project design document

LRQA has determined during the verification process that:

- the implementation and operation of the project activity has been conducted in accordance with the description contained in the registered PDD

LRQA has, by means of a desk review and an on-site visit, assessed that:

- all physical features of the proposed CDM project activity proposed in the registered PDD are in place
- the project participants have operated the proposed CDM project activity as per the registered PDD

For details of the implementation status of the project, the actual operation of the proposed CDM project activity, any information provided in the monitoring report that is different from that stated in the registered PDD¹, and any approvals of the necessary request of notification or request for approval of changes, please refer to the Verification Protocol in Appendix C.

4.2 Compliance of the monitoring plan with the monitoring methodology, including applicable tool(s)

LRQA has determined that the project implementation is in accordance with the provisions of the registered PDD and has also verified that the validated monitoring plan is in accordance with the approved methodology applied by the proposed CDM project activity.

¹ And has 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 future monitoring periods



For details relating to this section, please refer to the Verification Protocol in Appendix C.

LRQA confirms that the monitoring plan is in accordance with the approved methodology applied by the proposed CDM project activity.

4.3 Compliance of monitoring activities with the registered monitoring plan

LRQA has confirmed that:

1. the monitoring plan and the applied methodology have been properly implemented and followed by the project participants
2. all parameters stated in the monitoring plan, the applied methodology and relevant CDM Executive Board decisions, have been sufficiently monitored and updated as applicable, including:
 - a. project emission parameters
 - b. baseline emission parameters
 - c. leakage parameters
 - d. management and operational system
3. the accuracy of equipment used for monitoring is in accordance with the relevant guidance provided by the CDM Executive Board and is controlled and calibrated in accordance with the monitoring plan
4. monitoring results are consistently recorded as per approved frequency
5. quality assurance and quality control procedures have been applied in accordance with the monitoring plan.

For details relating to this section, please refer to the Verification Protocol in Appendix C.

LRQA confirms that monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD.

The list in the Verification Protocol – Appendix C shows each parameter required by the monitoring plan, and clearly states how LRQA has verified the information flow (from data generation, aggregation, to recording, calculation and reporting) for these parameters, including the values in the monitoring report.

4.4 Compliance with the calibration frequency requirements for measuring instruments

LRQA has determined that the calibration of measuring equipment has been conducted at the frequency specified in the applied monitoring methodology and in the registered monitoring plan.

For details relating to the frequency of calibration and any cases identified of delayed calibration, please refer to the Verification Protocol in Appendix C.

4.5 Assessment of data and calculation of emission reductions

LRQA has determined whether:

1. a complete set of data for the specified monitoring period is available



2. information provided in the monitoring report has been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis
3. calculations of baseline emissions, proposed CDM project activity emissions and leakage, as appropriate, have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document
4. any assumptions used in emission calculations have been justified
5. appropriate emission factors, IPCC default values and other reference values have been correctly applied.

For details of whether data was not available because activity levels or non-activity parameters were not monitored in accordance with the registered monitoring plan, a description of LRQA cross-checked reported data, please refer to the Verification Protocol in Appendix C.

LRQA confirms that appropriate methods and formulae for calculating baseline emissions, projects emissions and leakage have been followed.

LRQA is of the opinion that all assumptions, emissions factors and default values that were applied in calculations have been justified.

5 Making the monitoring report publicly available

In accordance with the "Procedures for making the monitoring report available to the public in accordance with paragraph 62 of the modalities and procedures for the CDM", the monitoring report Version 01.1 dated 31/01/2013 was made publicly available on the CDM website on 06/02/2013 at:

<http://cdm.unfccc.int/Projects/DB/LRQA%20Ltd1270819651.34/iProcess/LRQA%20Ltd1360146708.02/view>



6 Certification report

LRQA has undertaken the second periodic verification of the proposed project activity “Wind power project at Gujarat by Powerica Limited” covering the monitoring period from 01/05/2011 to 31/12/2012 based on the requirements of CDM as set out in Article 12 of the Kyoto Protocol, the CDM M&P, the present annex, subsequent decisions made by the COP/MOP and CDM-EB, and the other rules applicable to the proposed project activity including the host country’s legislation and its specific requirements for sustainable development.

Through the verification process, the verification team identified 1 CAR, 5 CLs and 1 FAR. The PP has taken actions to address the CAR and CLs and submitted to LRQA the revised monitoring report Version 06 dated 03/04/2013 and any other supporting evidence. All CARs and CLs have been appropriately closed before the issuance of the verification report. The FAR raised during this periodic verification will be assessed during the next periodic verification by the verifying DOE.

The verification team is of the opinion that the proposed project activity has been implemented in accordance with the registered PDD, the MP complies with the approved monitoring methodology, the monitoring complies with the MP and the monitored data and calculation of ERs are assessed and confirmed as correct. Therefore LRQA hereby certifies, and requests the issuance of, the reported ERs of “Wind power project at Gujarat by Powerica Limited” during the monitoring period of 01/05/2011 to 31/12/2012 amounting to 46,523 tCO₂e to the CDM Executive Board.

Decision Maker

Michiaki Chiba

Climate Change Manager – Asia & Pacific

08/04/2013



7 Appendices

7.1 Appendix A: List of documents reviewed

Category A documents (documents from the PP)

1	Monitoring Report version 01.1 dated 31/01/2013, version 02 dated 01/03/2013, version 03 dated 05/03/2013, version 04 dated 25/03/2013, version 05 dated 26/03/2013 and version 06 dated 03/04/2013
2	Emission reduction calculation spread sheet version 01 dated 31/01/2013, version 02 dated 01/03/2013, version 03 dated 05/03/2013 and version 04 dated 26/03/2013
3	Commissioning certificate as a proof for the commissioning of the 9 WTGs of the project activity from 18/03/2010 to 31/03/2010 issued by GEDA, dated: 09/04/2010
4	Copies of monthly Joint Meter Reading (JMR) reports for export and import electricity covering the monitoring period from 01/05/2011 to 31/12/2012
5	Invoices for sale of electricity for the period covering the monitoring period from 01/05/2011 to 31/12/2012
6	Certificates for share of electricity generated by wind farms at Shikarpur and Vandhiya sub stations for the monitoring period
7	Calibration certificates for the energy meters installed at the WTG sites at Electrical yards
8	Calibration certificates of the energy meters at Vandhiya and Shikarpur sub stations
09	Inspection certificate issued by the office of chief electrical inspector dated: 16/03/2010
10	Copy of supply agreement for nine Vestas 1650 kW Wind turbine generators dated: 12th December 2009 and addendum dated: 26th February 2010 including the technical specification of the WTGs
11	Power Purchase agreement with GUVNL dated: 09th March 2010
12	Single line diagram showing the electricity generation, transmission, evacuation and metering system.
13	Copy of erection and commissioning agreement for WTGs dated: 12 th December 2009 and addendum dated: 26th February 2010.
14	Copy of service availability agreement for WTGs dated: 12th December 2009
15	Evidence of internal audit records
16	Proof of training and competency of the project operators
17	Declaration by PP dated 05/03/2013 confirming non diversion of ODA funds for the project activity
18	Catalogue for technical specifications of the V82 model Vestas made WTGs installed for the project activity
19	Revised project design document for the project activity, version 03.3 dated 03/04/2013

Category B documents (other documents referenced)

1	Registered project design document, version 03.2 dated: 06/04/2010
2	Validation report (Ref: CDM-MUM-0061595), version 1.2 dated: 07/04/2010
3	Monitoring methodology AMS I.D, Grid connected renewable electricity generation, version 15
4	Validation and Verification Standard, version 03.0
5	Guideline for Completing the Monitoring Report Form, version 03.2
6	Clean development mechanism project standard, version 02.1
7	Clean development mechanism project cycle procedure, version 03.2



7.2 Appendix B: Certificate of Appointment

Second Periodic Verification of “Wind power project at Gujarat by Powerica Limited”

We hereby certify that the following personnel have engaged in the verification process that has fully satisfied the competence requirements of the verification of the CDM project activity.

Name of Person	Assigned Roles
Sanjay Kumar Agarwalla	Team Leader, Sector Expert
Imran Ustad	Technical Reviewer, Sector Expert
Michiaki Chiba	Decision Maker

Signed by

Decision Maker

Michiaki Chiba
Climate Change Manager – Asia & Pacific
08/04/2013

7.3 Appendix C: Verification Protocol and Findings

	Verified situation	Conclusion
SECTION 1. Project implementation in accordance with the registered PDD		
General description of the project		
1.1. Does the MR provide general information of the project and is it as registered by CDM-EB?	<p>Yes.</p> <p>The project activity, "Wind power project at Gujarat by Powerica Limited" was registered as a CDM project on 18/09/2010 (UNFCCC Ref No.3632) applying the methodology AMS I.D, version 15, "Grid connected renewable electricity generation".</p> <p>The project activity involves an installation of 9 Wind Turbine Generators (WTG) of total generating capacity of 14.85 MW (9×1.65MW) of Vestas make V82 WTG. The WTG units are installed in Kutch district in the state of Gujarat and the electricity generated is exported to NEWNE grid of India.</p> <p>With reference to section A.1 the MR version 06 dated 03/04/2013, it is confirmed that the MR provides general information of the project is consistent with the registered PDD.</p>	OK
1.2. Is the Monitoring report as per the standardised format? (E70 Annex 11)	<p>Yes.</p> <p>The MR has used the latest available version of MR's template version 03.1.</p>	OK
1.3. Is there any open issue in the validation / previous verification including FARs? (CDM VVS para. 213)	<p>No. This is second periodic verification and there is no open issue during the first verification which needs to be addressed during this periodic verification. During the course of validation, one FAR was raised which was successfully closed in the last verification (first periodic verification).</p>	OK
Implementation status of the project activity		

	Verified situation	Conclusion																																						
1.4. Is the project location indicated as the same as the registered PDD? Confirm geographical coordinates	<p>Yes.</p> <p>The project activity is located in Bachau Taluka, in Kutch district of Gujarat state in India. The geographic coordinates of each WTGs are as follows:</p> <table> <tr> <th>WTG</th> <th>Village</th> <th>Latitude (°N)</th> <th>Longitude (°E)</th> <th>Sub-station</th> </tr> <tr> <td>VW42</td> <td rowspan="3">Lakhapar</td> <td>23°11'14"</td> <td>70°37'49"</td> <td rowspan="2">Shikarpur</td> </tr> <tr> <td>VW43</td> <td>23°11'03"</td> <td>70°37'33"</td> </tr> <tr> <td>VW45</td> <td rowspan="3">Lakhapar</td> <td>23°11'28"</td> <td>70°37'02"</td> <td rowspan="7">Vandhiya</td> </tr> <tr> <td>VW46</td> <td>23°11'38"</td> <td>70°36'43"</td> </tr> <tr> <td>VW47</td> <td>23°11'48"</td> <td>70°36'25"</td> </tr> <tr> <td>JW14</td> <td rowspan="2">Jangi</td> <td>23°10'42"</td> <td>70°32'44"</td> </tr> <tr> <td>JW15</td> <td>23°10'44"</td> <td>70°32'29"</td> </tr> <tr> <td>NM82-1</td> <td rowspan="2">Vandhiya</td> <td>23°11'36"</td> <td>70°35'47"</td> </tr> <tr> <td>NM82-2</td> <td>23°11'42"</td> <td>70°35'33"</td> </tr> </table> <p>Verification team confirmed from the site visit that the location of the project activity including the coordinates is same as mentioned in the registered PDD.</p>	WTG	Village	Latitude (°N)	Longitude (°E)	Sub-station	VW42	Lakhapar	23°11'14"	70°37'49"	Shikarpur	VW43	23°11'03"	70°37'33"	VW45	Lakhapar	23°11'28"	70°37'02"	Vandhiya	VW46	23°11'38"	70°36'43"	VW47	23°11'48"	70°36'25"	JW14	Jangi	23°10'42"	70°32'44"	JW15	23°10'44"	70°32'29"	NM82-1	Vandhiya	23°11'36"	70°35'47"	NM82-2	23°11'42"	70°35'33"	OK
WTG	Village	Latitude (°N)	Longitude (°E)	Sub-station																																				
VW42	Lakhapar	23°11'14"	70°37'49"	Shikarpur																																				
VW43		23°11'03"	70°37'33"																																					
VW45		Lakhapar	23°11'28"	70°37'02"	Vandhiya																																			
VW46	23°11'38"		70°36'43"																																					
VW47	23°11'48"		70°36'25"																																					
JW14	Jangi	23°10'42"	70°32'44"																																					
JW15		23°10'44"	70°32'29"																																					
NM82-1	Vandhiya	23°11'36"	70°35'47"																																					
NM82-2		23°11'42"	70°35'33"																																					
1.5. Is the project boundary described in the same way as the registered PDD? Please confirm each component based on the applied methodology.	<p>Yes.</p> <p>The project boundary includes the electricity generation equipment at the site and the transport through the electricity grid to the substation.</p>	OK																																						

	Verified situation	Conclusion				
	<div><p>The description in the MR provided in section B.1 is consistent with the registered PDD and in accordance with the applied methodology, AMS.I.D, Version 15.</p></div>					
1.6. Has on-site fossil fuel consumption, if any, been monitored? Is any emission source missed? Check the site lay-out and confirm through site tour.	The turbines run exclusively with wind energy without any usage of fossil fuel and this was confirmed during the on site visit.	OK				
1.7. Confirm contractors for equipment and installation works	Confirmed from the review of supply agreement and erection & commissioning agreement that contractor for equipment and installation is Vestas.	OK				
1.8. Confirm conformance with baseline and monitoring methodology - Applicability conditions. Please refer to the complete description of the applicability conditions and confirm that the project activity meets all the requirements.	<p>The small scale methodology AMS I.D is applicable for the following technologies/measure.</p> <table><tr><th>Technology/measure as per the methodology</th><th>Verified situation</th></tr><tr><td></td><td></td></tr></table>	Technology/measure as per the methodology	Verified situation			OK
Technology/measure as per the methodology	Verified situation					

Verified situation			Conclusion
	1	<i>This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal and renewable biomass, that supply electricity to and/or displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit.</i>	The team confirms from the review of documents and by means of on site visit, that the project is a small scale wind energy project of capacity 14.85 MW supplying the generated electricity to NEWNE grid of India.
	2	<p><i>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</i></p> <ul style="list-style-type: none"> <i>a. The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</i> <i>b. The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m2;</i> <i>c. The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m2.</i> 	This requirement is not relevant to the project activity as it is not a hydro power plant. This has been confirmed from the review of registered PDD, validation report, commissioning certificate, technical agreements and during the site visit.

Verified situation			Conclusion
	3	<i>If the unit added has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</i>	Confirmed from the review of PDD, Validation report, supply agreement that the project does not add any non-renewable components and does not involve co-firing. The total capacity of the project is 14.85 MW as confirmed during the site visit.
	4	Combined heat and power (co-generation) systems are not eligible under this category.	Confirmed from the review of PDD, Validation report, supply agreement and during the site visit that the project is not a combined heat and power system.
	5	<i>In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</i>	Confirmed from the review of PDD, Validation report, supply agreement and during the site visit that the project does involve addition of renewable energy generation units to an existing renewable power generation facility. The total capacity of the project activity is 14.85 MW.
	6	<i>Project activities that seek to retrofit or modify an existing facility for renewable energy generation are included in this category. To qualify as a small scale project, the total output of the modified or retrofitted unit shall not exceed the limit of 15 MW.</i>	Confirmed from the review of PDD, Validation report, supply agreement and during the site visit that the project activity does not involve retrofit or modification of an existing facility. The total capacity of the project is 14.85 MW.
The team confirms that the project activity meets all the applicability criteria of the			

	Verified situation	Conclusion																				
	applied small scale methodology AMS I.D, Version 15.																					
1.9. Confirm use or not use of public funding and determine if there is no diversion of ODA to the project activity.	In section A.4.4 of the registered PDD it has been stated “There is no public funding involved in the project activity”. The same was also validated and confirmed by the validating DOE. Moreover, the PP has submitted a declaration in this respect dated 05/03/2013.	OK																				
1.10. Check data in the MR and in the PDD. Describe data and variables that are different from that stated in the registered PDD and caused an increase in emission reductions estimations.	<p>The ex-ante fixed grid emission factor of 0.9224 tCO₂/MWh has been used for the baseline emission calculation which is line with the registered PDD.</p> <p>Comparison of monitored data in MR and in the registered PDD is as follows:</p> <table> <tr> <th>Sr. No.</th> <th>Parameter</th> <th>Symbol</th> <th>Value in PDD</th> <th>Actual value as in MR for the Monitoring period</th> </tr> <tr> <td>1.</td> <td>Electricity exported to grid</td> <td>EG_y</td> <td>31,920 MWh/year (this corresponds to 53,433 MWh for the monitoring period from 01/05/2011 to 31/12/2012)</td> <td>50,847.906 MWh</td> </tr> <tr> <td>2.</td> <td>Electricity imported from grid</td> <td>EC_y</td> <td>0 MWh/year</td> <td>411.299 MWh</td> </tr> <tr> <td>3.</td> <td>Emission reduction</td> <td>tCO₂e</td> <td>29,443 tCO₂e / annum (this corresponds to 49,287 tCO₂e for the monitoring period from 01/05/2011 to 31/12/2012)</td> <td>46,523 tCO₂e</td> </tr> </table> <p>The net electricity supplied to the grid during the monitoring period is less, and resulted in lower emission reduction.</p> <p>However, CL 04 was raised as the ex ante estimation of the emission reduction provided in the published MR was incorrect. The CL was closed after the MR was revised providing the correct ex ante estimation of emission reductions as 49,287 tCO₂.</p>	Sr. No.	Parameter	Symbol	Value in PDD	Actual value as in MR for the Monitoring period	1.	Electricity exported to grid	EG _y	31,920 MWh/year (this corresponds to 53,433 MWh for the monitoring period from 01/05/2011 to 31/12/2012)	50,847.906 MWh	2.	Electricity imported from grid	EC _y	0 MWh/year	411.299 MWh	3.	Emission reduction	tCO ₂ e	29,443 tCO ₂ e / annum (this corresponds to 49,287 tCO ₂ e for the monitoring period from 01/05/2011 to 31/12/2012)	46,523 tCO ₂ e	CL-04 OK
Sr. No.	Parameter	Symbol	Value in PDD	Actual value as in MR for the Monitoring period																		
1.	Electricity exported to grid	EG _y	31,920 MWh/year (this corresponds to 53,433 MWh for the monitoring period from 01/05/2011 to 31/12/2012)	50,847.906 MWh																		
2.	Electricity imported from grid	EC _y	0 MWh/year	411.299 MWh																		
3.	Emission reduction	tCO ₂ e	29,443 tCO ₂ e / annum (this corresponds to 49,287 tCO ₂ e for the monitoring period from 01/05/2011 to 31/12/2012)	46,523 tCO ₂ e																		

	Verified situation	Conclusion
<p>1.11. By means of an on-site visit:</p> <p>Is the general information of the project provided in the Monitoring report and is it as registered by CDM-EB?</p> <p>List each technical component and equipment and check design parameters and actual status of installation and / or operation.</p> <p>Please check to ensure that all physical features of the proposed CDM project activity in the registered PDD are in place and the PP has operated the proposed CDM project activity as per the registered PDD.</p> <p>It may include but not limited to:</p> <ul style="list-style-type: none"> • the actual capacity and output • plant load factor • type of feedstock • operation of other components / units within the project boundary which could affect functioning of the project plant. <p>In cases where there are a large number of components and equipment items and the check of all of them is not an available option, then a random sampling check shall be performed. Justify here the sample chosen and describe the results.²</p>	<p>The project activity involves installation and operation of 9 Wind Turbine Generators (WTG) each of 1.65 MW capacity thereby aggregating to total generating capacity of 14.85 MW (9×1.65MW) of Vestas make V82 WTG. The WTG units are installed in Kutch district in the state of Gujarat.</p> <p>Generation unit: Vestas V 82 Wind turbines Capacity: 14.85 MW Plant load factor: 23.16% Start date of operation: Different dates for the 9 WTGs (18/03/2010 to 31/03/2010) as stated in Annex 1 of the MR and verified from the commissioning certificate. During the on site visit, verification, by the observation of equipment, interviews with relevant staff and the checking of technical specifications of the WTGs, it was confirmed that the project activity has been implemented as described in the registered PDD.</p> <p>No change from the registered PDD of physical features which may impact the emission reduction of the project activity has been identified. The verification team confirms all the physical features of the CDM project activity in the registered PDD are in place.</p> <p>However, on review of the registered PDD and Validation Report, provided documents and on site visit interview, the following two inconsistencies were noted:</p> <p>1) In section A.4.2 of the registered PDD, version 3.2 dated 06/04/2010, "Rated wind speed" is stated as 14.4 rpm which is incorrect. CL 05 was raised in this respect and PP has clarified that it was a typographical error in the registered PDD and it is corrected as "Nominal Revolution" as 14.4 rpm and "Nominal Wind Speed" as 13 m/s in the revised PDD, version 3.3, dated 03/04/2013. The verification team cross checked this correction of the technical specifications of the project WTGs in the revised PDD section A.4.2 with the catalogue for the V82 WTG models used in the project activity supplied by Vestas and found to be correct.</p> <p>2) In section B.7.1 of the registered PDD, version 3.2 dated 06/04/2010, accuracy class of the sub station meters is stated 0.2s but the accuracy class of the WTG</p>	<p>CL-05 OK</p>

² The sampling shall be in line with the "Standard for sampling and surveys for CDM project activities and programme of activities"

	Verified situation	Conclusion
	<p>yard meters is not stated. Nevertheless, the accuracy class of the WTG yard meters was stated in section 4.5 of the Validation Report, version 1.2 dated 07/04/2010 as 0.5. The verification team noted that as per the registered PDD, both the sub station meters and the WTG yard meters are used for arriving at the final net energy supplied by the project activity. Hence the team considers this as a typographical error (i.e. missing out mention of the accuracy class of the WTG yard meters in the PDD). CL 05 was raised in this respect and the PP has submitted the revised PDD, version 3.3 dated 03/04/2013 by stating the accuracy class of the WTG yard meters as 0.5s in section B.7.1 of the PDD. The verification team confirms this correction as correct based on the Validation Report, version 1.2 dated 07/04/2010, first periodic issuance and the on site visit and document review during the second periodic verification.</p> <p>CL 05 was closed after submission of the revised PDD, version 3.3 dated 03/04/2013 and validation of the post registration changes for the same. For details of the closure of the CL, please refer to the findings section of the report.</p> <p>The verification team confirms that the above two permanent changes in the PDD do not affect the design of the project activity and the corrected information is an accurate reflection of actual project information thereby satisfying the requirement of paragraph 258 of VVS, version 03.0. Hence the above permanent changes qualify as "Corrections" as per Appendix 1 of Project Standard, version 02.1 and does not require prior approval by the Board.</p> <p>In accordance to paragraph 212 and 213 of Project Standard, version 02.0, PP has informed the verification team regarding the above corrections and submitted a revised PDD.</p> <p>Hence in accordance to paragraph 135 of Project Cycle Procedure, version 03.2, the above changes in the PDD are being submitted to EB for acceptance as part of request of issuance.</p>	
1.12. Have responsibilities for monitoring been described and specified?	<p>Yes.</p> <p>The monitoring report clearly describes the responsibilities for monitoring and this was verified by the verification team during the on site visit through interviews.</p>	OK
1.13. Are the responsibilities and authorities for monitoring and reporting in line with those stated in	<p>Yes.</p> <p>During the site visit it was confirmed that the basic information related to electricity</p>	OK

	Verified situation	Conclusion
the registered monitoring plan?	generation was made available to the PP by the Vestas. These figures are also available by the Vestas to the PP through a dedicated web portal. Further, monthly generation records were taken by GEDA officials and are made available to the PP through the Share certificate issued by GEDA. At Powerica, the electricity generation records were checked through the dedicated staff for wind power division. The verification team also confirmed that the monthly generation records were archived electronically. Therefore, responsibilities and authorities for monitoring and reporting are in accordance with those stated in the registered PDD.	
1.14. Check QA/QC, management systems. Are procedures described and specified in the MR? Are they consistently applied as described in the MP? a. documented instructions, management manual b. documentation c. data archiving d. monitoring report e. cross-checking f. energy balance analysis (as relevant) g. internal audits / verification and management review	Yes. The registered PDD describes the data to be measured continuously and recorded monthly, electronic data archiving, annual internal audits. The verification team confirmed the documented instructions for operation and maintenance, electronic archiving of the data from the interview of the PP, further cross checking of data has been done through GEDA share certificates issued for billing. The MR describes the monitoring system, monitoring procedures, data collection and reporting including the internal audits, responsibilities of relevant staff/departments, emergency scheme, calibrations that were implemented and QA/QC procedures.	OK
1.15. Have the procedures for emergency and abnormal situations been established?	Emergency procedures are established as per the registered PDD. This was verified during the on site visit interviews with the representatives of the Vestas. During the monitoring period, no emergency situation in monitoring had occurred.	OK
1.16. Has the system for qualification and training been established as relevant for the monitoring and management activities?	The training and qualification of the project personnel has been confirmed during interview of the operational personnel. It is confirmed that they have sufficient knowledge, experience and competency to implement and maintain the WTGs including data monitoring and recording in line with normal industrial norms and CDM requirements.	OK
1.17. Check the environmental report, license, permit and compliance to the local environmental legislation (if relevant).	The wind power project does not require any environmental report, license, permit or compliance report to be submitted.	OK
1.18. Check contribution to sustainable development, comparing those expected in PDD and the actual status.	Monitoring of sustainable development indicators is not required by the Indian DNA. The Project is supplying renewable power to the grid and has resulted in employment for local people, as confirmed during the site visit by the interviews with the local stakeholders, and thus contributing to sustainable development.	OK

	Verified situation	Conclusion	
1.19. Check issues with local stakeholders, claims, complaints, etc.	No major conflicts with local stakeholders were identified during site visit.	OK	
1.20. If from the above assessment the conclusion is that the implementation or operation of the project activity does not conform with the description contained in the registered PDD and/or corrections have been made to project information or parameters fixed at validation, determine if these changes and/or corrections do not require prior approval by the board: <ul style="list-style-type: none">- Any corrections to project information of a registered CDM project activity that do not affect the design of the project activity do not require prior approval by the Board.- A request for approval is required if any of the three issues below is adversely impacted by the identified changes to the project design.			
1.21. The applicability and application of the applied methodology under which the project activity has been registered: Check if the project boundary has changed and if any of the parameters to assess the applicability conditions have changed.	The project activity still holds the applicability conditions of the applied methodology AMS I.D, version 15 during the registration. The project boundary and the applicability conditions have not changed.	YES	NO
		-	No
1.22. The additionality of the project activity: Check if any of the input parameters to the investment analysis have changed. For barrier analysis, check if any information or data used in the barrier analysis has changed.	There is no change in the project design parameters as the project is implemented as per the registered PDD.	YES	NO
		-	No
1.23. The scale of the project activity. Check if the project is still small scale or large scale after the implementation of the changes.	The project activity is 14.85 MW renewable energy generation and supply electricity to grid. Hence the scale of the project activity is still small scale and is not changed.	YES	NO
		-	No
If the answer to any of the above items is YES, please conduct an assessment of the potential impacts of these changes following the Procedures for Post Registration Changes.			
1.24. If, from the above assessment, the conclusion is that the changes require prior approval by the EB in accordance with the PS, please check any approvals of the necessary request for approval of changes.	Not applicable	-	

	Verified Situation	Conclusion
SECTION 2. Compliance of the Monitoring Plan with the Monitoring Methodology including applicable Tool(s)		
2.1. Is the monitoring plan (registered or approved) in accordance with the applied methodology?	Yes. The monitoring plan is in accordance with the approved methodology AMS 1.D, Version 15.	OK
2.2. If the methodology provides different options (for example, use of default values or on-site measurements), has the Monitoring Report specified which option is used?	Yes. The project activity as per the registered PDD has selected the ex ante option and the emission factor calculation results are fixed for the first renewable crediting period. The emission factor fixed ex-ante for the project has the value 0.9224 tCO ₂ e/MWh as per the registered PDD. Hence no uncertainty involved with the default values used for this reporting period.	OK
2.3. Is all data collected and archived according to the tables in the applied Monitoring Methodology and is this included in the Monitoring Plan?	Yes, all the data is collected and archived in accordance with the methodology and included in the monitoring plan. The monitoring plan in the registered PDD includes the measurement of net electricity supplied to the grid (difference of export and import electricity) which is in accordance with the monitoring methodology. All the data will be archived until 2 years after the end of crediting period or the last issuance of CERs for this project activity, whichever occurs later. The data are archived electronic form.	OK
2.4. Check the calculation of emission reductions following the applied methodology: <ul style="list-style-type: none"> • baseline emissions • project emissions • leakage • emission reductions of the project. 	<p>The team confirms that the calculation of the emission reductions following the applied methodology has been correctly done.</p> <p><u>Base line emissions</u> As per the registered PDD and the applied methodology AMS 1.D, Version 15, the baseline is the energy supplied by the renewable generating unit (Net saleable energy) multiplied by the emission coefficient (Emission Factor of the grid).</p> <p>Baseline emission=Net saleable energy X Emission factor of the grid</p> <p><u>Project emissions</u> Project emissions and leakage emissions are considered nil as per the applied methodology.</p>	OK

	Verified Situation	Conclusion
	<p><u>Leakage emissions</u></p> <p>As per the applied small scale methodology AMS 1.D, version 15, leakage emissions are to be considered only if the energy generating equipment is transferred from another activity. The energy equipment is not transferred from any other activity and hence the leakage emissions are not considered.</p> <p>Since the project emission and the leakage emissions are nil, the emission reduction by the project activity is the same as the baseline emissions.</p>	
<p>2.5. List any monitoring aspect that is not specified in the methodology and check its compliance with the Monitoring Plan, for example:</p> <ul style="list-style-type: none"> • additional monitoring parameters • monitoring frequency • calibration frequency. 	<p>No additional monitoring parameter is identified that is not specified in the approved methodology and the registered PDD available in the project page in UNFCCC website.</p> <p>Monitoring frequency and the calibration frequency specified are not less than the requirements of the approved methodology and the monitoring plan in the registered PDD.</p>	OK

	Verified Situation	Conclusion
SECTION 3. Compliance of Monitoring activities with the registered Monitoring Plan		
<p>3-1. Is the Monitored Data included in the Monitoring Report as per the Monitoring Plan or any accepted revised MP?</p> <p>3-2. Has the data been generated at the frequency required by the Monitoring Plan or any accepted revised MP?</p>	<p>The monitoring plan in the registered PDD requires monitoring of the energy exported to the grid and the energy imported from the grid. The values are indicated appropriately in the section D.2 of the Monitoring report against the corresponding parameters as per the registered PDD.</p> <p>The verification team confirms that the data were generated at the required frequency as per the monitoring plan in the registered PDD.</p> <p>However, CAR 01 was raised as the values of net electricity supplied to the grid did not match with the invoice values indicated in the published MR. In the published MR, the net electricity values have been reported from the Joint Meter Readings of the WTG yard meters without accounting the losses and this was not in line with the registered monitoring plan. PP has revised the MR and ER spread sheet and reported the correct export and import energy values from the invoices. The verification team also cross checked these values with the SLDC share certificates and found to be correct. Hence the CAR was closed. The closure of this CAR resulted in decrease of emission reduction from 47,267 tCO₂ to 46,523 tCO₂ for the monitoring period. Findings log section of the report may be referred for the details of the closure of this CAR.</p>	CAR-01 OK
<p>3-3. Has the monitoring been implemented in accordance with the monitoring plan contained in the registered PDD or any accepted revised MP?</p> <p>Confirm that the monitoring and reporting procedures have been implemented as documented and follow by PPs.</p>	<p>The monitoring plan requires measurement of electricity exported to the grid and electricity imported from the grid. The monitoring plan mentions annual calibration of the electricity meters.</p> <p>The metering arrangement was confirmed during the site visit which include WTG yard meters located at the 33 kV line for each of the nine WTGs and the substation meters located at Vandhiya (220 kV) and Shikarpur (132 kV) substations for the electricity supplied by the whole wind farm.</p> <p>It was confirmed that the information of the meters were consistent with that</p>	OK

	<p>described in the MR through physical observation and document review.</p> <p>The net electricity supplied to the grid is calculated through a two way measured procedure. First measurement of electricity exported/imported is done at the individual WTG yard meters, and second measurement is done at the substation meters of the wind farm. Net electricity exported/imported from the project activity is measured by apportioning of losses from the WTG to the substation. This apportioning procedure is also in accordance with the PPA. The verification team also confirmed that apportioning procedures as mentioned in the monitoring plan of the registered PDD has been correctly applied.</p> <p>According to the power purchase agreement, the net electricity delivered at the substation will be used for the financial transaction. The PPA also describes that certificate issued by GEDA for Generation share of wind turbine should be used for billing.</p> <p>Billing is done once in a month. For billing, the data is recorded in presence of representatives of the PP and State Grid Body. Further, the apportioned electricity certificate is issued by the relevant department of the State Grid Body in accordance with the provisions of the PPA.</p> <p>During the on-site verification, QA/QC procedures were identified which demonstrate that: operation management regulations of the power plant were in place; all meters were calibrated; electricity data was crosschecked; data was archived electronically; emergency procedures were in place; and all operational staff were trained before taking up positions. The verification team thus confirmed that the monitoring of the project activity has been implemented in accordance with the monitoring plan in the registered PDD.</p>	
3-4. Have types of measurement instrumentation used been described and specified?	<p>Yes.</p> <p>Calculation of net electricity supplied to the grid is done considering monitoring of electricity at two different points: at the energy meters installed at the respective WTGs and at the connected substations.</p> <p>The project activity involves nine WTGs connected to two different substations. The WTGs VW42 and VW43 are connected to Shikarpur substation and WTGs VW45, VW46, VW47, JW14, JW15, NM01 and NM02 are connected to Vandhiya</p>	<p>CL-04 FAR 01 OK</p>

	<p>substation.</p> <p>As per the PPA, the net electricity supplied by an individual machine to the grid is calculated by apportioning of the losses. This calculation is based on electricity measurement at 33 kV side of individual WTGs and at the connected substations of the whole wind farm.</p> <p>In accordance with the monitoring plan in the registered PDD, the electricity measurement is done in two folds: at WTG and at common pooling substation. Tri-vector bi-directional energy meters are installed at each WTG yards and the connected pooling substations.</p> <p>The verification team confirmed through the on-site assessment and the review of evidence that the installation of the measuring devices has been completed and the energy meters are operated and maintained in normal operating condition. During this monitoring period, there have been no emergency situations relating to the installed meters that have led to them exceeding the allowable tolerance or otherwise malfunctioning. The appropriateness of the measuring equipment was confirmed with reference to the requirements of the applicable local regulations and by comparison with the application to similar CDM project activities.</p> <p>It was confirmed that the information of the meters was consistent with that described in the MR through physical observation and the document review.</p> <p>However, CL 01 was raised as the sub station meter details were not provided in the MR and calibration certificates for the check meters were not provided. The CL was closed after the revised MR provided the details of the sub station meters. Findings log section may be referred for details of closure of the CL.</p> <p>This CL also resulted in FAR 01 which needs to be closed during the next periodic verification by the verifying DOE.</p>	
3-5. Is the accuracy of equipment used for monitoring sufficient and regularly controlled and calibrated in line with the registered monitoring plan or any accepted revised MP?	<p>The accuracy of individual energy meters of WTG is 0.5s and substation meter is 0.2s and this is in accordance with the registered PDD / Validation report.</p> <p>The energy meters are calibrated at an annual frequency which is line with the registered PDD. The calibration reports presents that the errors in measurement</p>	<p>CL-02</p> <p>CL-03</p> <p>CL-05</p>

<p>Check relevance of maintenance and calibration included in the monitoring plan.</p> <p>Check relevance of laboratory analysis if included in the monitoring plan.</p>	<p>are within the permissible limits.</p> <p>Correction has been applied in a conservative manner (error subtracted for export energy and added for import energy) for the period 01/05/2011 to 31/07/2011 for all the WTGs due to delayed calibration for the WTG yard meters and from 01/05/2011 to 31/01/2012 for the sub station meters in accordance to the paragraph 239 of VVS, version 03.0.</p> <p>The verification team confirms that there is no relevance of laboratory analysis included in the monitoring plan as per the registered PDD.</p> <p>However, CL 02 was raised as the dates of calibrations as stated in the published MR did not match the calibration certificates. The CL was closed after corrections in the MR.</p> <p>CL 03 was raised because in the ER spread sheet version 01, in the cells D7 and C30 it was commented "calibration delay applicable from 11/3/2011 to 07/07/2011" whereas this monitoring starts from 01/05/2011. The CL was closed after appropriate revision in the ER spread sheet.</p> <p>CL 05 was raised as the accuracy class of the WTG yard meters was not stated in the registered PDD (although it was stated in the validation report). In response, PP has submitted the corrected revised PDD stating the accuracy class of the WTG yard meters as 0.5s. The revised PDD being submitted with the issuance package for acceptance by the board in accordance to paragraph 135 of project cycle procedure, version 03.2. Hence the CL was closed.</p> <p>Please refer to the findings section of the report for further details.</p>	<p>OK</p>
<p>3-6. Check that responsibilities and authorities for monitoring and reporting are in line with the monitoring plan.</p> <p>Are the monitoring results consistently recorded, reviewed and approved as stated in the PDD or any accepted revised MP?</p>	<p>The registered PDD clearly describe the monitoring of the responsibility of monitoring is with PP. PP has authorized Vestas for O&M duties at site through service and availability agreement.</p> <p>During the site visit, monitoring and reporting procedures were confirmed with the relevant staff and through the document review.</p> <p>Please refer to the 3-3 above.</p>	<p>OK</p>
<p>3-7. Reporting period: Defined?</p> <p>If a monitoring period of a parameter more / less than a year is applied, check if the monitoring is in a complete and consistent manner?</p>	<p>Yes.</p> <p>The monitoring period applied is from 01/05/2011 to 31/12/2012 (both days inclusive).</p> <p>The monitoring period is more than a year (611 days) and the verification team by</p>	<p>OK</p>

	means of review of the emission reduction sheet and monitoring records such as monthly joint meter reading records, confirms that the monitoring is done in a complete and consistent manner. The electricity export and import is recorded and reported monthly. The monitoring of these parameters has been done considering the period where full months fall in this period. Therefore, the monitoring is in a complete and consistent manner with the monitoring plan.	
3-8. If the monitoring plan includes the determination of environmental and / or social indicators, have the sustainable development indicators been monitored in accordance with the registered monitoring plan?	Not Applicable.	-
3-9. Check monitoring of Environmental and Social indicators (if relevant) <ul style="list-style-type: none"> • implementation of measures • monitoring equipment • quality assurance procedures • external data. 	Not Applicable.	-

Verified Situation		Conclusion
SECTION 2 and 3: Post Registration Changes		
3-10. If, from the above assessment in SECTIONS 2 and 3, the conclusion is that there are temporary deviations or permanent changes from the registered Monitoring Plan or Monitoring Methodology, determine if these deviations or changes require prior approval by the EB by answering the questions below. All the answers to the applicable questions below shall be explained and the reasons for each conclusion given in the “Verified situation” column.		
Temporary deviations from the registered monitoring plan or applied methodology: Prior approval by the EB is <u>not</u> required if the answer to the applicable questions below is YES.		
3-11. Have the PPs reported as zero any parameter related to baseline GHG emissions that they have temporarily failed to monitor or for which they are unable to produce evidence related to such monitoring?	Not applicable	YES
		NO
		-
		-

	Verified Situation	Conclusion	
3-12. Have the PPs estimated (assuming that the source of the GHG emissions operated at maximum capacity for the full period of the missing data) any parameter that they have temporarily failed to monitor or for which they are unable to produce evidence related to such monitoring? For project GHG emissions related to the consumption of electricity, the estimate shall include an addition of 10% to account for transmission and distribution losses.	Not applicable	YES	NO
		-	-
Permanent changes from the registered monitoring plan or applied methodology			
If the monitoring equipment actually installed has a lower accuracy level than the accuracy stipulated in the applied methodology and/or in the registered monitoring plan, and the monitoring equipment is under the control of the project participants, prior approval by the EB is <u>not</u> required if the answer to the applicable questions below is YES:			
3-13. Have the PPs deducted from the measured value, for any parameter used for calculating baseline GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or the registered monitoring plan?	Not applicable	YES	NO
		-	-
3-14. Have the PPs added to the measured value, for any parameter used for calculating project GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or the registered monitoring plan?	Not applicable	YES	NO
		-	-
Changes to the monitoring of the registered CDM project activity of a type listed below do not require approval by the EB. Confirm in the conclusion column that the change is of the type in the table below and explain the reasons.			

	Verified Situation	Conclusion
3-15. Change of calibration frequency or practice for monitoring equipment not within the control of project participants	Not applicable	-
3-16. Change of accuracy / type / model of meter(s) as per a power purchase agreement (PPA)	Not applicable	-
3-17. Change of location of meter(s) as per a power purchase agreement (PPA)	Not applicable	-
If the answer to any of the above items has been that approval from the EB is required, please conduct an assessment of the potential impacts of these changes following the Procedures for Post Registration Changes.		
3-18. If, from the above assessment, the conclusion is that the temporary deviations or permanent changes require prior approval by the EB in accordance with the PS, please check any approvals of the necessary request for approval of changes.	Not Applicable	-

3.19 Monitoring Parameters and Calibration Checklist:

Complete the following table for each parameter:

Data / Parameter (as in the MP)		EG _y <Electricity exported to grid>	EC _y <Electricity imported from grid>
Value	Ex ante	53,433 (for the monitoring period)	0
	Ex-post	50,847.906	411.299
Measuring frequency		Continuously	Continuously
Reporting frequency		Monthly	Monthly
Is the measuring and reporting frequency in line with the MP and the Monitoring Methodology?		Yes	Yes
Recording (Manually / electronically / ...)		Manually and electronically	Manually and electronically
QA/QC How are values verified? (Cross-checked, double-checked,...)		Invoices prepared by the PP	Invoices prepared by the PP
Type of Monitoring Equipment and Identification number or Reference in the PDD		Monitoring equipment: Electronic tri-vector meters	Monitoring equipment: Electronic tri-vector meters
Is accuracy of the monitoring equipment as stated in the PDD? If not stated in the PDD, does it represent good monitoring practices?		Yes. Accuracy of the substation meter (main/check) is stated as 0.2s in the PDD which was confirmed from the site visit Accuracy of the main and check meter at the WTG transformer yard is stated as 0.5s in the revised PDD, version 3.3 dated 03/04/2013 which was confirmed from the site visit.	Yes. Accuracy of the substation meter (main/check) is stated as 0.2s in the PDD which was confirmed from the site visit Accuracy of the main and check meter at the WTG transformer yard is stated as 0.5s in the PDD, revised PDD, version 3.3 dated 03/04/2013 which was confirmed from the site visit.
Period of operating time		01/05/2011 to 31/12/2012	01/05/2011 to 31/12/2012
Instrument type		Bi-directional trivector energy meter	Bi-directional trivector energy meter

Data / Parameter (as in the MP)	EG _y <Electricity exported to grid>	EC _y <Electricity imported from grid>																																																												
Manufacturer, model and serial number	<p>Total 18 energy meters are installed, 2 (main and check) for all 9 WTGs. The details are as follows:</p> <table border="1"> <thead> <tr> <th>WTG number</th><th>Main meter</th><th>Check meter</th></tr> </thead> <tbody> <tr><td>VW47</td><td>GJU56180</td><td>208320686</td></tr> <tr><td>JW15</td><td>GJU56181</td><td>208190837</td></tr> <tr><td>JW14</td><td>GJU56182</td><td>208320447</td></tr> <tr><td>NM01</td><td>GJU56183</td><td>208200823</td></tr> <tr><td>NM02</td><td>GJU56178</td><td>208320646</td></tr> <tr><td>VW46</td><td>GJU56184</td><td>208320647</td></tr> <tr><td>VW45</td><td>GJU56185</td><td>208320616</td></tr> <tr><td>VW42</td><td>GJB03625</td><td>208320448</td></tr> <tr><td>VW43</td><td>GJU56186</td><td>208320620</td></tr> </tbody> </table> <p>Main meters are manufactured by Secure Meters Check meters are manufactured by Wallaby Metering systems</p> <p>Vandhiya Substation: Serial number: Line 1 - GJ-0670-A Line 2 -GJ-0671-A</p> <p>Shikarpur substation: Serial number: Line 1 - GJ-2136-A Line 2 - GJ-2144-A Substation meters are manufactured by L & T</p> <p>All the above meters are tri vector bi-directional meters</p>	WTG number	Main meter	Check meter	VW47	GJU56180	208320686	JW15	GJU56181	208190837	JW14	GJU56182	208320447	NM01	GJU56183	208200823	NM02	GJU56178	208320646	VW46	GJU56184	208320647	VW45	GJU56185	208320616	VW42	GJB03625	208320448	VW43	GJU56186	208320620	<p>Total 18 energy meters are installed, 2 (main and check) for all 9 WTGs. The details are as follows:</p> <table border="1"> <thead> <tr> <th>WTG number</th><th>Main meter</th><th>Check meter</th></tr> </thead> <tbody> <tr><td>VW47</td><td>GJU56180</td><td>208320686</td></tr> <tr><td>JW15</td><td>GJU56181</td><td>208190837</td></tr> <tr><td>JW14</td><td>GJU56182</td><td>208320447</td></tr> <tr><td>NM01</td><td>GJU56183</td><td>208200823</td></tr> <tr><td>NM02</td><td>GJU56178</td><td>208320646</td></tr> <tr><td>VW46</td><td>GJU56184</td><td>208320647</td></tr> <tr><td>VW45</td><td>GJU56185</td><td>208320616</td></tr> <tr><td>VW42</td><td>GJB03625</td><td>208320448</td></tr> <tr><td>VW43</td><td>GJU56186</td><td>208320620</td></tr> </tbody> </table> <p>Main meters are manufactured by Secure Meters Check meters are manufactured by Wallaby Metering systems</p> <p>Vandhiya Substation: Serial number: Line 1 - GJ-0670-A Line 2 -GJ-0671-A</p> <p>Shikarpur substation: Serial number: Line 1 - GJ-2136-A Line 2 - GJ-2144-A Substation meters are manufactured by L & T</p> <p>All the above meters are tri vector bi-directional meters</p>	WTG number	Main meter	Check meter	VW47	GJU56180	208320686	JW15	GJU56181	208190837	JW14	GJU56182	208320447	NM01	GJU56183	208200823	NM02	GJU56178	208320646	VW46	GJU56184	208320647	VW45	GJU56185	208320616	VW42	GJB03625	208320448	VW43	GJU56186	208320620
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Specific location	Individual meters are provided on 33 kV line at the respective WTGs and the Sub station meters are located at the respective substations (Vandhiya and Shikarpur)	Individual meters are provided on 33 kV line at the respective WTGs and the Sub station meters are located at the respective substations (Vandhiya and Shikarpur)																																																												

Data / Parameter (as in the MP)	EG _y <Electricity exported to grid>	EC _y <Electricity imported from grid>
Calibration dates	<p>Calibration dates of all WTG yard meters: 10/03/2010 (valid till 09/03/2011) 07/07/2011 (valid till 06/07/2012) 03/07/2012 (valid till 02/07/2013)</p> <p>Vandhiya Substation: GJ-0670-A & GJ-0671-A: 15/10/2009 (valid till 14/10/2010) 17/01/2012 (valid till 16/01/2013)</p> <p>Shikarpur substation: GJ-2136-A: 26/11/2009 (valid till 25/11/2010) 13/01/2012 (valid till 12/01/2013)</p> <p>GJ-2144-A 05/04/2010 (valid till 04/04/2011) 13/01/2012 (valid till 12/01/2013)</p>	<p>Calibration dates of all WTG yard meters: 10/03/2010 (valid till 09/03/2011) 07/07/2011 (valid till 06/07/2012) 03/07/2012 (valid till 02/07/2013)</p> <p>Vandhiya Substation: GJ-0670-A & GJ-0671-A: 15/10/2009 (valid till 14/10/2010) 17/01/2012 (valid till 16/01/2013)</p> <p>Shikarpur substation: GJ-2136-A: 26/11/2009 (valid till 25/11/2010) 13/01/2012 (valid till 12/01/2013)</p> <p>GJ-2144-A 05/04/2010 (valid till 04/04/2011) 13/01/2012 (valid till 12/01/2013)</p>
Company performing the calibration	Paschim Gujarat Vij Nigam Limited, a sister company of GETCO ³	Paschim Gujarat Vij Nigam Limited, a sister company of GETCO ³
Required calibration frequency: Is it in line with the MP? Or represent good monitoring practices?	Yes	Yes
Is calibration valid for the whole reporting period?	No. All the individual WTG yard meters were in service beyond the due dates of calibration from 01/05/2011 to 06/07/2011 and hence correction has been applied in a conservative manner from 01/05/2011 to 31/07/2011. Similarly the sub station meters were in service beyond the due dates of calibration during the monitoring period as follows - for Vandhiya from 01/05/2011 to 16/01/2012 and for Shikarpur site from 01/05/2011 to 12/01/2012. Hence correction has been applied in a conservative manner for the sub station meters from 01/05/2011 to 31/01/2012. Corrections have been applied in accordance with paragraph 238 of VVS.	No. All the individual WTG yard meters were in service beyond the due dates of calibration from 01/05/2011 to 06/07/2011 and hence correction has been applied in a conservative manner from 01/05/2011 to 31/07/2011. Similarly the sub station meters were in service beyond the due dates of calibration during the monitoring period as follows - for Vandhiya from 01/05/2011 to 16/01/2012 and for Shikarpur site from 01/05/2011 to 12/01/2012. Hence correction has been applied in a conservative manner for the sub station meters from 01/05/2011 to 31/01/2012. Corrections have been applied in accordance with paragraph 238 of VVS.
Maintenance	Individual meters of the WTGs are being maintained by the PP, bulk meter is being maintained by GETCO	Individual meters of the WTGs are being maintained by the PP, bulk meter is being maintained by GETCO

³ <http://www.pgvcl.com/>

Data / Parameter (as in the MP)	EG _y <Electricity exported to grid>	EC _y <Electricity imported from grid>
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Yes. The net electricity exported to the grid was jointly taken by the representative of the PP and government agency. Based on the apportioning electricity a share certificate was issued by GEDA. This is also used for billing. Verification team confirmed from the review of the share certificate, invoices and measurement readings that correct data has been transferred. Further, for calculation of the emission reductions only the net electricity generation is required to be monitored. Therefore, it can be concluded that correct data has been transferred for reporting of emission reduction.	Yes. The net electricity exported to the grid was jointly taken by the representative of the PP and government agency. Based on the apportioning electricity a share certificate was issued by GEDA. This is also used for billing. Verification team confirmed from the review of the share certificate, invoices and measurement readings that correct data has been transferred. Further, for calculation of the emission reductions only the net electricity generation is required to be monitored. Therefore, it can be concluded that correct data has been transferred for reporting of emission reduction.
Key reporting risks	Low risk The meter is also the resettlement meter for the grid company and the PP. It was installed, maintained and calibrated according to the relevant industry standard.	Low risk The meter is also the resettlement meter for the grid company and the PP. It was installed, maintained and calibrated according to the relevant industry standard.

Verified situation		Conclusion
SECTION 4. Compliance with the calibration frequency requirements for measuring instruments		
The “Monitoring Parameters and Calibration Checklist” in section 3 above shall be checked to determine if the calibration frequency specified in the applied monitoring methodology and/or monitoring plan is followed in the monitoring report and in the monitoring activities. Where a failure to comply with the required frequency is detected, or no frequency is mentioned in the monitoring report, please follow the checklist below:		
<p>4-1. If the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (that is, the results of delayed calibration are available), confirm that the following conservative approach has been adopted in the calculation of emission reductions:</p> <ul style="list-style-type: none"> - If the delayed calibration did not show any errors in the measuring equipment, or the error was smaller than the maximum permissible error, have the PPs applied the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration? - If the delayed calibration identified an error greater than the maximum permissible error, have the PPs applied the error identified in the delayed calibration test to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration? <p>Confirm that the error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer emission reductions being claimed;</p>	<p>As stated in section 3.19 above, corrections due to delayed calibration have been applied. The delayed calibrations showed errors within the permissible errors of the energy meters. Hence the maximum permissible errors of the measuring equipment have been applied for the calculation of the emission reductions which is conservative.</p>	OK

	Verified situation	Conclusion
<p>4-2. If the results of the delayed calibration are not available, or the calibration has not been conducted at the time of verification:</p> <ul style="list-style-type: none"> a. Request the PPs to conduct the required calibration; b. On receipt of the calibration results, determine whether the PPs have calculated the emission reductions conservatively using the approach mentioned in section 4.1 above. 	Not Applicable.	NA
<p>4-3. If it is not possible for the PPs to conduct the calibration at a frequency specified by either the applied methodology, guidance provided by the Board, and/or the registered monitoring plan due to reasons beyond the control of the PPs, check if the PPs have prepared a temporary deviation or a 'Permanent changes from the monitoring plan and/or monitoring methodology application'.</p> <p>Follow the requirements for post registration changes in sections 3.10 to 3.19 above.</p>	Not Applicable.	NA
<p>4-4. If neither the monitoring methodology nor the monitoring plan specify any requirements for calibration frequency for measuring equipment, determine whether the equipment is calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification. If neither local/national standards nor the manufacturer's specification are available, international standards may be used.</p>	Not Applicable.	NA

	Verified situation	Conclusion
SECTION 5. Assessment of data and calculation of emission reductions		
<p>5-1. Have calculations of baseline emissions, proposed CDM project activity emissions and leakage, as appropriate, been carried out in line with the formulae and methods described in the monitoring plan and the applied methodology document?</p> <p>Check consistency in the ERs spreadsheet.</p>	<p>Yes</p> <p>According to the registered PDD and the MR, the baseline emissions for the project activity has been calculated as:</p> $BE_y = (EG_y - EC_y) * EF_y$ $(50847.906 - 411.299) \times 0.9224$ $= 50436.607 \times 0.9224$ $= 46,523 \text{ tCO}_2\text{e}.$ <p>EF_y is the baseline emission factor which has been determined ex-ante in the registered PDD as 0.9224 tCO₂e/MWh. The emission factor will not change during the first renewable crediting period from 18/09/2010 to 17/09/2017 and is thus applicable for this monitoring period.</p> <p>EG_y and EC_y refer to electricity exported to the grid and imported from the grid respectively.</p> <p>The verification team has checked and confirmed the calculation in the ER spreadsheet is correct.</p>	OK
<p>5-2. Has the calculation tool been correctly documented? Check its consistency and formulae.</p> <ul style="list-style-type: none"> • baseline emissions • project emissions • leakage • emission reductions of the project. 	<p>The monitoring report is supported by and Micro Soft excel based spreadsheet for the calculation of emission reductions. The consistency and formula were verified and found to be accurate.</p>	OK

	Verified situation	Conclusion
<p>5-3. Is a complete set of data available during the specified monitoring period? If only partial data is available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan proceed as follows:</p> <ol style="list-style-type: none"> Check if sections 3.11 and/or 3.12 above are applicable and raise a CAR for the PPs to comply with these requirements. If sections 3.11 and 3.12 are not applicable or the answer to this question remains NO, a request for deviation is necessary. <p>Conduct an assessment of the potential impacts of these changes in accordance to the procedures for Post Registration Changes.</p>	<p>No partial data is available and a complete set of data is available for this monitoring period.</p>	OK
<p>5-4. Has information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?</p> <p>Please describe how LRQA has cross-checked reported data.</p>	<p>During on-site verification, for purpose of data cross-checking, the team has reviewed the actual bills/invoices of electricity sale, SLDC Share certificate, and Joint meter reading records.</p> <p>The net electricity generation has been verified against the share certificates issued by the Gujarat Energy Development Agency. Verification team confirms that the electricity board calculates the electricity figures based on the methodology and formulae provided in the PDD.</p> <p>Through these approaches, the verification team confirmed that the data for calculation of emission reduction in the MR and Emission reduction spreadsheet submitted were fully substantial.</p>	OK
<p>5-5. Have any assumptions used in emission calculations been justified?</p>	<p>No assumptions have been used for the emission reduction calculation.</p>	OK
<p>5-6. Have appropriate emission factors, IPCC default values, and other reference values been correctly applied?</p>	<p>The emission factor has been determined ex- ante in the registered PDD and will not change during the entire crediting period.</p>	OK

Findings⁴

1. Grade / Ref:	CAR 01	2. Date:	26/02/2013	3. Status:	Closed
4. Requirement	Paragraph 209 of VVS, version 03.0				
5. Nature of the Issue Raised:	It is observed that the emission reductions are calculated based on the JMRs of the yard meters installed at the sites. But as per the registered PDD, the emission reductions are to be claimed based on the invoices.				
6. Nature of responses provided by the project participants:	The ER spreadsheet is now corrected as per the invoices.				
7. Assessment of such responses:	The revised ER spread sheet and the MR applies the correct values of export and import electricity from the invoices and this is line with the registered monitoring plan. Hence the CAR is closed. The closure of this CAR resulted in the reduction of ER from 47,267 tCO ₂ to 46,523 tCO ₂ for the monitoring period.				
8. References to resulting changes in the monitoring report or supporting annexes:	ER spread sheet / MR.				

1. Grade / Ref:	CL 01	2. Date:	26/02/2013	3. Status:	Closed
4. Requirement	Paragraph 209 of VVS, version 03.0				
5. Nature of the Issue Raised:	PP has not provided details of the sub-station meters (both main and check) either in section D.2 or Annex 1 of the published MR. Also PP needs to provide the calibration certificates for these meters covering the monitoring period. Calibration certificates for the WTG yard check meters have not been provided.				
6. Nature of responses provided by the project participants :	The PP has now included the sub-station meters details in the Annex 1 of the revised MR. The calibration certificates for the main meters at the substations and the WTG yards have been provided to the DOE. The calibration for check meters has not been carried out during this monitoring period.				
7. Assessment of such responses :					

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Explanation of the Findings Log structure:

1. Grading and Sequential Number of the finding Workbook	2. Date of Original Finding	3. New, Open, Closed	4. Requirement (VVS, PDD-CDM, etc)	5. Reference to
6. Details of PP's response	7. Evaluation from the Verification team		8. List of changes made as a result of the finding	

The sub station main and check meters have been shown in the revised MR. Calibration certificates of the main meters have been provided to the verification team. Calibration of the check meters have not been carried out during the monitoring period. The verification team noted that for this monitoring period, the main meters were decisive for JMRs and invoicing as they were functioning under normal conditions. Hence non calibration of the check meters does not affect the emission reduction calculation and hence deemed acceptable.
This CL resulted in FAR 01 which will be closed by the verifying DOE during the next periodic verification.

8. References to resulting changes in the monitoring report or supporting annexes:

Section D.2 / Annex 1 of MR

1. Grade / Ref:	CL 02	2. Date:	26/02/2013	3. Status:	Closed
4. Requirement	Guideline for Completing the Monitoring Report Form (version 03.2)				
5. Nature of the Issue Raised:					
In Annex 1 and section D.2 of the published MR, “Date of Calibration 1” and “Date of Calibration 2” do not match with the calibration certificates provided.					
6. Nature of responses provided by the project participants :					
The dates of calibration are now corrected in the revised MR					
7. Assessment of such responses :					
The calibration dates have been corrected in the revised MR in line with the calibration certificates. Hence the CL is closed.					
8. References to resulting changes in the monitoring report or supporting annexes:					
Annex1 / Section D.2 of MR					

1. Grade / Ref:	CL 03	2. Date:	26/02/2013	3. Status:	Closed
4. Requirement	Guideline for Completing the Monitoring Report Form (version 03.2)				
5. Nature of the Issue Raised:	In Cells D7 and C30 of the ER spread sheet it is commented “calibration delay applicable from 11/3/2011 to 07/07/2011” whereas this monitoring period starts from 01/05/2011. PP needs to clarify.				
6. Nature of responses provided by the project participants :					
The comment is now corrected.					
7. Assessment of such responses :					
The comments in the ER spread sheet have been corrected and hence the CL is closed.					
8. References to resulting changes in the monitoring report or supporting annexes:					
ER spread sheet					

1. Grade / Ref:	CL 04	2. Date:	26/02/2013	3. Status:	Closed
4. Requirement	Guideline for Completing the Monitoring Report Form (version 03.2)				
5. Nature of the Issue Raised:	PP needs to provide the calculation of the value “48,399” as provided in section E.5 of the MR.				
6. Nature of responses provided by the project participants:	Calculation of the ex ante estimation of emission reductions for the monitoring period have been corrected in the revised MR.				
7. Assessment of such responses :	The calculation of ex-ante emission reduction for the monitoring has been corrected as 49,287 tCO ₂ . Hence the CL is closed.				
8. References to resulting changes in the monitoring report or supporting annexes:	Section E.5 / E.6 of the MR				

1. Grade / Ref:	CL 05	2. Date:	03/04/2013	3. Status:	Closed
4. Requirement	Guideline for Completing the Monitoring Report Form (version 03.2) and paragraph 212 and 213 of Project Standard (version 02.1)				
5. Nature of the Issue Raised:	PP needs to clarify “Rated wind speed” as “14.4 rpm” as stated in section B.1 of the MR and also the registered PDD, version 3.2 dated 06/04/2010. Also the accuracy class of the WTG yard meters has not been stated in the MR which is incidentally also not stated in the registered PDD although it is stated in the validation report, version 1.2 dated 07/04/2010 as 0.5.				
6. Nature of responses provided by the project participants:	PP submits that in section A.4.2 of the registered PDD it was a typographical mistake and now corrected and revised MR and PDD version 03.3 dated 03/04/2013 being submitted. Further in the MR and corrected PDD, the accuracy class for the WTG meters have been added and this is in line with the actual figures on site.				
7. Assessment of such responses :	<p>PP has clarified that it was a typographical error in the registered PDD and it is corrected as “Nominal Revolution” as 14.4 rpm and “Nominal Wind Speed” as 13 m/s in the revised PDD, version 3.3, dated 03/04/2013. The verification team cross checked this correction of the technical specifications of the project WTGs in the revised PDD section A.4.2 with the catalogue for the V82 WTG models used in the project activity supplied by Vestas and found to be correct.</p> <p>In section B.7.1 of the registered PDD, version 3.2 dated 06/04/2010, accuracy class of the sub station meters is stated 0.2s but the accuracy class of the WTG yard meters is not stated. Nevertheless, the accuracy class of the WTG yard meters was stated in section 4.5 of the Validation Report, version 1.2 dated 07/04/2010 as 0.5. The verification team noted that as per the registered PDD, both the sub station meters and the WTG yard meters are used for arriving at the final net energy supplied by the project activity. Hence the team considers this as a typographical error (i.e. missing out mention of the accuracy class of</p>				

the WTG yard meters in the PDD). PP has submitted the revised PDD, version 3.3 dated 03/04/2013 by stating the accuracy class of the WTG yard meters as 0.5s in section B.7.1 of the PDD. The verification team confirms this correction as correct based on the Validation Report, version 1.2 dated 07/04/2010, first periodic issuance and the on site visit and document review during the second periodic verification.

The verification team confirms that the above two permanent changes in the PDD do not affect the design of the project activity. Hence the above permanent changes qualify as "Corrections" as per Appendix 1 of Project Standard, version 02.1 and does not require prior approval by the Board.

In accordance to paragraph 212 and 213 of Project Standard, version 02.1, PP has informed the verification team regarding the above corrections and submitted a revised PDD.

Hence in accordance to paragraph 135 of Project Cycle Procedure, version 03.2, the above changes in the PDD are being submitted to EB for acceptance as part of request of issuance.

The CL is closed.

8. References to resulting changes in the monitoring report or supporting annexes:

Section B.1 and D.2 of MR and PDD

1. Grade / Ref:	FAR 01	2. Date:	03/04/2013	3. Status:	Open
4. Requirement	Paragraph 223 of VVS, version 03.0				
5. Nature of the Issue Raised:	Referring to CL 01, as per the registered PDD and the PPA for the project activity, in case of failure of the main meters, check meters would be decisive for invoicing and emission reduction calculations. The registered PDD has specified regular re-calibration of the energy meters once in a year. During this monitoring period, the main meters were decisive for invoicing and emission reduction calculations and hence the verification team considered the non calibration of the check meters during this monitoring deemed acceptable. However, the verifying DOE during the next periodic verification needs to check the status of re-calibration of all the meters in the project activity to mitigate the situation of any malfunctioning of the main meters.				
6. Nature of responses provided by the project participants:	PP will calibrate the WTG and sub station check meters from next monitoring periods.				
7. Assessment of such responses:	PP has confirmed that calibration of the check meters used in the project activity will be carried out during the subsequent monitoring periods. The next verifying DOE needs to check the calibration status for closure of this FAR.				
8. References to resulting changes in the monitoring report or supporting annexes:					
-					