
VERIFICATION AND CERTIFICATION REPORT

M/s Devki Builders Pvt. Ltd.

**Wind Power Project in Rajasthan,
India by M/s Devki Builders Pvt. Ltd.**

UNFCCC Reference: 5923

Monitoring Period 1: 23/04/2012 to 04/12/2013
(Both days inclusive)

Date of Issue:		Project Number:	
12/12/2014		CDM.VER1404.MP01	
Project Title:			
Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.			
Organisation:		Client:	
SGS United Kingdom Limited		M/s Devki Builders Pvt. Ltd.	
Publication of Monitoring Report:			
Monitoring Period:		23/04/2012 to 04/12/2013 (first and last days included)	
First Monitoring Version and Date:		Version 01, dated 21/01/2014	
Final Monitoring Version and Date:		Version 09, dated 12/12/2014	
Summary:			
<p>SGS United Kingdom Ltd has performed the first periodic verification of the CDM project "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.", bearing UNFCCC reference number 5923, registration date of 23/03/2012 and crediting period from 23/04/2012 – 22/04/2022 (fixed). The verification includes confirming the implementation of the monitoring plan of the registered PDD and the revised PDD version 09 dated 05/12/2014 (submitted with this report) and the application of the monitoring methodology as per AMS ID, version 17. A site visit was conducted to verify the data submitted in the monitoring report. SGS confirms the following has been reviewed:</p> <ul style="list-style-type: none"> (a) The registered PDD, the revised PDD including the monitoring plan and the corresponding validation report; (b) The monitoring report; (c) The applied monitoring methodology; (d) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board; (e) All information and references relevant to the project activity resulting in emission reductions. <p>The project activity consists of four Wind Turbine Generators (WTGs), each of 1.5 MW capacity, at Bastwa Mataji village, Jodhpur district, Rajasthan; set up by M/s Devki Builders Pvt. Ltd. (hereafter DBPL or project participant). The project was commissioned on 30/09/2009. The power generated by the project activity is being exported to Jaipur Vidyut Vitaran Nigam Limited (hereafter JVVNL).</p> <p>SGS confirms that the project is implemented in accordance with the validated and registered PDD and the revised PDD. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 15,002 t CO₂e emission reductions during the period 23/04/2012 to 04/12/2013 (both days included).</p>			
Subject:			
CDM Verification			
Verification Team:			
Ravikant Soni – Lead Assessor; Local Assessor and Sectoral Expert (TA 1.2)		<input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational unit) <input type="checkbox"/> Limited Distribution <input type="checkbox"/> Unrestricted Distribution	
Technical Review:			
Date: 12/12/2014 Name: Ramkrishna Patil			
Authorised Signatory:			
Name: Jonathan Hall Date: 24/12/2014			

Revision Number:	Date:	Number of Pages:	
0	13/08/2014	38	
1	29/09/2014	39	
2	24/10/2014	42	
03	06/12/2014	42	
04	12/12/2014	44	

Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CL	Clarification Request
CMP or COP/MOP	Conference of Parties serving as the Meeting of the Parties
CO ₂	Carbon Dioxide
CoP	Conference of the Parties
CT	Current Transformer
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
EB GSS	Electricity Board Grid Sub-station
EF	Emission Factor
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
ISO	International Organisation for Standardisation
JMR	Joint Meter Reading
kWh	Kilo watt hour
LCS	Local Controller System
MGR	Monthly Generation Report
MP	Monitoring Plan
MR	Monitoring Report
MW	Mega watt
MWh	Mega Watt hour
NEWNE	North East West North-East
O&M	Operation and Maintenance
OM	Operating Margin
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
PPA	Power Purchase Agreement
QA/QC	Quality Assurance/Quality Control
RERC	Rajasthan Electricity Regulatory Commission
RMP	Revised Monitoring Plan
RPTCL	Rajasthan Power Transport Company Limited
RRVNL	Rajasthan Rajya Vidyut Prasaran Nigam Limited
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
WEC	Wind Energy Convertor
WEG	Wind Electricity Generator
WTG	Wind Turbine Generator

Table of Content

1. Introduction.....	6
1.1 Objective.....	6
1.2 Scope.....	6
1.3 Project Activity and Period Covered.....	6
2. Methodology.....	7
2.1 General Approach.....	7
2.2 Verification Team for this Assessment.....	7
2.3 Means of Verification.....	7
2.3.1 Review of Documentation.....	7
2.3.2 Site Visits.....	8
2.4 Reporting of Findings.....	8
2.5 Internal Quality Control.....	9
3. Verification Findings.....	10
3.1 Project Implementation.....	10
3.2 Post registration changes.....	12
3.2.1 Temporary deviations from registered monitoring plan or applied methodology.....	12
3.2.2 Corrections.....	12
3.2.3 Permanent changes from registered monitoring plan or applied methodology.....	13
3.2.4 Changes to project design of registered project activity.....	13
3.2.5 Changes to start date of crediting period.....	13
3.3 Remaining Issues, CAR's, FAR's from Previous Validation or Verification.....	13
3.4 Completeness and accuracy of Monitoring.....	14
3.4.1 Verification of monitoring of parameters.....	14
3.4.2 Verification of implementation of sampling plan.....	20
3.5 Accuracy of Equipment.....	20
3.6 Summary of compliance with the calibration frequency requirements for measuring instruments.....	22
3.7 Accuracy of Emission Reduction Calculations.....	22
3.8 Quality of Evidence to Determine Emission Reductions.....	23
3.9 Management and operational System and Quality Assurance.....	24
3.10 Data from External Sources.....	24
4. Calculation of Emission Reductions.....	25
5. Recommendations for Changes in the Monitoring Plan.....	26
6. Overview of Results.....	27
7. Verification and Certification Statement.....	29
8. Document References.....	30
9. Findings Overview.....	30
10. Statement of Competence.....	41
11. Photographic Evidence.....	43

1. Introduction

1.1 Objective

SGS United Kingdom Ltd has been contracted by M/s Devki Builders Pvt. Ltd. (the project participant of the project) to perform an independent verification of its CDM project "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.". CDM projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Certified Emission Reductions (CERs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The emissions report conforms with the requirements of the monitoring plan in the PDD and the approved methodology; and
- The data reported are complete and transparent.

1.2 Scope

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on the registered PDD (and the revised PDD) and the monitoring report. The project is assessed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance.

SGS has, based on the recommendations in the Validation and Verification Standard, employed a risk-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

Due professional care has been exercised and ethical conduct has been followed by the assessment team during the verification process. The verification report is a fair presentation of the verification activity.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Project Activity and Period Covered

This engagement covers emissions and emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the following project and period.

Title of Project Activity:	Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.
UNFCCC Registration Number:	5923
Monitoring Period Covered in this Report:	23/04/2012 to 04/12/2013 (first and last days included)
Project Participants:	Host Country: India Annex I Country: N/A
Location of the Project Activity:	Village: Bastwa Mataji , Taluka: Shergarh, District: Jodhpur, Rajasthan, India

The main purpose of the project activity is to generate electricity using wind energy. The power generated is supplied to the state electricity grid and replace the power generated by fossil fuel intensive thermal power plants thus mitigating GHG emissions. The electricity generation from the project activity will contribute to GHG reductions. In this first monitoring period, the project activity contributes to GHG reduction of 15,002 tCO₂.

2. Methodology

2.1 General Approach

SGS performs the verification work using a Periodic Verification Checklist prepared following the VVS. The Periodic Verification Checklist describes the verification approach and the sampling plan.

The checklist gives the assessment team a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

Using the Periodic Verification Checklist, SGS verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a site visit and a desk review of the monitoring report. This verification report describes the findings of this assessment.

Only verification activities undertaken after the publication of the monitoring report on the UNFCCC CDM website were used as a basis for SGS to conclude our verification and submit a request for issuance of CERs to the Board.

2.2 Verification Team for this Assessment

The team selected to perform the verification of the project is as follows:

Name	Role
Ravikant Soni	Lead Assessor; Local Assessor and Sectoral Expert (TA 1.2)

2.3 Means of Verification

2.3.1 Review of Documentation

The registered PDD, the revised PDD submitted with this report and the monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in section 8 of this report.

2.3.2 Site Visits

As part of the verification, the following on-site inspections have been performed by Mr. Ravi Kant Soni (Lead auditor/Local Assessor/Expert).

Location: Village: Bastwa Mataji Taluka: Shergarh, District: Jodhpur	
Date: 12/03/2014	
Coverage: <ul style="list-style-type: none"> Monitoring report Project design and implementation Conformance with Registered PDD Monitoring procedure Emission reduction calculations 	Source of Information / Persons Interviewed Mr.Hemendar Singh(Executive, DBPL) Mr.Aniruddh Singh(HT In charge-SEL)
<ul style="list-style-type: none"> Technical equipment and operation Data collection, operations and monitoring procedure Monitoring equipment testing and calibration Data uncertainty QA/QC procedures 	Mr.Indrajeet Chanpuwat (Site In charge-SEL) Mr.Hemendar Singh(Executive, DBPL)

2.4 Reporting of Findings

As an outcome of the verification process, the team can raise different types of findings.

In general, where insufficient or inaccurate information is available and clarification or new information is required the team shall raise a Clarification Request (CL) specifying what additional information is required.

Where a non-conformance arises the team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- I. Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- II. Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- III. Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- IV. Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The verification process may be halted until this information has been made available to comply with the requirements of the CDM Executive Board. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

A clarification request (CL) will be raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. All CARs and CLs raised during verification shall be resolved prior to submitting a request for issuance.

Corrective Action Requests and Clarification Requests are raised in the Periodic Verification Checklist. The Project Developer is given the opportunity to “close” outstanding CARs and respond to CLs.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period, which are for the benefit of future projects and future verification activities. These have no impact upon the completion of the verification activity.

All CARs, CLs and FARs for this verification period are included in this report.

2.5 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment Team, all documentation will be forwarded to a Technical Review Team. The task of the Technical Review Team is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

Technical Review Team

Name	Role
Ramkrishna Patil	Technical Reviewer and Technical Area expert TA 1.2

3. Verification Findings

3.1 Project Implementation

The main purpose of the project activity is to generate electricity using wind energy. The project activity consists of 4 wind electric generators (WEGs), each with a 1.5 MW capacity, installed in Jodhpur district, Rajasthan. This was checked by the assessment team during the verification site visit to the project activity. The power thus generated would be supplied to the state electricity grid and replaces the power generated by fossil fuel intensive thermal power plants thus mitigating GHG emissions. The investors have signed a PPA with RRVNPL for the sale of electricity to the grid. The project was registered as a CDM project on 23/03/2012. In the current monitoring period, the project activity contributes to GHG reduction of 15,002 tCO₂.

During the site visit the following discrepancies were observed regarding the project activity location as mentioned in the registered PDD:

- (i) The project activity is actually located in Shergarh Taluka but as per the information provided under section 4.1.3 of the registered PDD, the project is located in Dharampur Taluka.
- (ii) Also the location name of the sub-station which belongs to the state electricity authority (220 Kv EB GSS) was incorrectly mentioned as "Tiwari" in section B.7.2 of the registered PDD; the correct name for this location is "Tinwari".

Both the issues (i) and (ii) were discussed with the PPs representative during the site visit and it is concluded that the inconsistencies observed because the name of Taluka and 220 kv EB GSS was wrongly mentioned in the registered PDD at the time of validation of project activity. In line with the guidelines outlined under Appendix 1 of PS version 07, the PP has submitted the revised PDD, correcting the location names. The assessment team is able to confirm that the changes made in the registered PDD are categorized as "corrections" in line with paragraph 1 of appendix 1 of Project Standard version 07, these corrections do not require prior approval by the Board. Along with these corrections, there are other minor corrections, please refer section 3.2.2 of this report for more details.

The project was checked against the applicability criteria in the applied methodology AMS ID, Version 17 and it is confirmed that the methodology is applicable to the project activity. The data and variables provided in the Monitoring Report^{/3/} are the same as stated in the monitoring plan outlined in the registered PDD version 04 dated 18/11/2011 and the revised PDD version 09 dated 05/12/2014.

The project was implemented and equipment installed as described in the revised PDD. This is the first verification of the project activity covering the period from 23/04/2012 to 04/12/2013. The monitoring plan implemented during the current monitoring period is in compliance with the applied methodology. This was verified during the site visit.

The project activity WEGs have been commissioned on 30/09/2009, the same is verified through commissioning certificates^{/13/} and found to be correct. Commissioning detail for all the 4 WEGs of the project activity is provided under below table:

Feeder Number	Number of WEGs	Location number	Commissioning date
1	1	RKBNL-06	30/09/2009
2	3	RKB-83,RKB-88 and RKB-89	30/09/2009

In addition to the physical inspection of the site, the following documents have been reviewed by the assessment team during the site visit to verify the project implementation:

- i. Commissioning certificates^{/13/}
- ii. Power Purchase Agreement^{/10/}
- iii. Invoices raised by the PP to state grid authority (RRVPNL)^{/8/}
- iv. Calibration/Testing certificates of all energy meters^{/9/}
- v. Monthly JMR(Joint Meter Report)^{/5/}
- vi. Daily generation records sourced from CMS provided by Suzlon^{/7/}
- vii. Energy breakup sheet monitored by state electricity utility through respective feeder meter at substation^{/6/}

The data and variables provided in the Monitoring Report^{/3/} are the same as stated in the monitoring plan outlined in registered PDD^{/1/} and revised PDD^{/2/}.

The verification of the metering systems is covered in section 3.6 of this report.

The estimated annual emission reductions in the registered PDD^{/1/} and revised PDD^{/2/} for the current monitoring period are 16,580 tCO₂e. The actual emission reductions are 15,002 tCO₂e which are lesser than the estimated emission reduction. This variation is due to low PLF achieved during the current monitoring period which is varied as per the availability of wind in the given year. At the time of registration annual PLF was estimated as 22% but the PLF achieved during the current monitoring period is 19.11%. As a result the actual ERs during the current monitoring period are lower than estimated in the registered PDD (and revised PDD).

It is found that the border lines of a few tables in the monitoring report disappear during the conversion from word to PDF. However, the disappeared lines appear if the zoom level of document (MR) increases up to 200% or more. The assessment team are able to confirm that in line with instructions of MR completion form, there is no modification done in the monitoring report, hence accepted.

Discussion of CAR/CLs:

CAR #1 was raised asking clarification for the following issues:

1. ER calculation sheet for current monitoring period was not submitted.
2. The relevant dates for the project activity were not provided in section A.1 of the MR, as per the requirement of EB 75, Annex 07.
3. Dates of the crediting period of the project activity were not correct in section A.5 of the MR.

In response, the PP has submitted the ER calculation sheet^{/4/} and revised MR^{/3/} and clarified that:

1. ER calculation is enclosed.
2. The relevant dates for the project activity are mentioned in section A.1 of the MR.
3. Crediting period dates are corrected in section A.5 of the MR.

The ER calculation sheet and revised MR were checked against the response provided by PP and found to be satisfactory. Hence CAR #1 was closed. For detailed discussion please refer to **CAR #1** under section 9 of this report.

Opinion:

Based on the requirements of paragraph 273 of the VVS version 7, the assessment team confirms that the project has been implemented and is being operated as described in the registered PDD^{/1/} and the revised PDD^{/2/}.

3.2 Post registration changes

It was observed that the name of the location (taluka) mentioned in section 4.1.3 of the registered PDD and the name of location for the EB GSS mentioned in section B.7.2 of the registered PDD, were inconsistent with the information verified on-site.

Hence the PP has submitted the revised PDD including the corrections in the relevant sections of the PDD. The assessment team has verified the corrections are now consistent with the information verified on-site and confirm that the corrections do not affect the design of the project activity. The corrections are therefore in line with paragraph 1 of appendix 1 of the Project Standard version 07. These corrections do not require prior approval by the Board.

Along with above corrections, all the corrections made in the registered PDD are discussed in detail in section 3.2.2 of this report.

3.2.1 Temporary deviations from registered monitoring plan or applied methodology

There are no temporary deviations from the registered approved monitoring plan or applied methodology^{18/}. It was verified and confirmed from the registered PDD (version 04, dated 18/11/2011)^{1/}, the applied methodology and the on-site verification.

3.2.2 Corrections

The following changes have been made in the PDD of the project activity:

- (i) Section 4.1.3: the name of the taluka is corrected from “Dharampur” to “Shergarh”.
- (ii) Section B.7.2: the name of the location for EB GSS is corrected from “Tiwari” to “Tinwari”.
- (iii) The term “annex” in the registered PDD is updated to “appendix” to reflect the new PDD template.
- (iv) The field “purpose of data” for the parameters in section B.6.2 of the PDD is now populated with information to reflect the new PDD template information.
- (v) The monitoring frequency and the field “purpose of data” are now mentioned for the parameters described under section B.7.1; and the reference of section B.7.2 is updated to B.7.3 in line with the PDD template requirement.

The assessment team is of the opinion that the corrections made in the project information of the registered CDM project activity do not affect the design of the project activity and are therefore in line with section 1, paragraph 1 of appendix 1 of the Project Standard version 07; these corrections do not require prior approval by the Board.

It is to be noted that this project is registered under the previous regulatory framework (VVM track), and the registered information in the registered PDD was transferred to the new VVS track PDD form. The verification team confirms that the information included in the new form is materially the same as the information in the registered PDD.

Discussion of CAR/CLs:

CAR #5 was raised requesting clarification for the following issues:

1. Location of the project activity was mentioned in the registered PDD and MR as Dharampur Taluka, however during the site visit the location of the project activity is confirmed as Shergarh Taluka.
2. Name of 220 KV EB GSS mentioned in the registered PDD and in MR was not found consistent with the same mentioned in the JMRs.
3. All the corrections identified in the registered PDD during the site visit were not mentioned in the MR and PDD.
4. The ER calculation sheet did not specify the period considered for year 2012 and 2013 (across two commitment periods). Also the number of days for the current monitoring period was not mentioned transparently.
5. Start date of current monitoring period in section E.1 is not consistent with the same mentioned in other section of the MR.

In response, the PP submitted the revised MR^{/3/}, revised ER sheet^{/4/} and the revised PDD^{/2/} and clarified that:

1. Location of project as mentioned in the registered PDD is erroneous. The same is corrected in the revised PDD considering as correction.
2. Name of 220 KV EB GSS is corrected in section 4.1.3 of revised PDD and in section C of the revised MR.
3. All the corrections are mentioned in the revised MR and under appendix 6 of the revised PDD.
4. The ER calculation sheet has specified the period considered for year 2012 and 2013. Also the number of days for the current monitoring period is mentioned transparently in the ER sheet.
5. Start date of current monitoring period in section E.1 is made consistent with the same mentioned in other section of the MR.

The assessment team has verified the corrections made in the PDD and confirmed that the corrections are of a typographical nature; locations etc and confirmed that the corrections do not affect the design of the project activity, hence in line with the section 1 Corrections, paragraph 1 of appendix 1 of Project Standard version 07, these corrections do not require prior approval by the Board. Since the response provided by PP found to be satisfactory hence, CAR #5 was closed. For detailed discussion please refer to **CAR #5** under section 9 of this report.

CAR #7 was raised requesting clarification for the following issues:

1. All the information's from section A.4.3 of VVM PDD was not transferred in VVS PDD.
2. Specific period in the table "Year wise shut down details" in the MR was not mentioned.
3. Last page of the revised PDD was showing error message.
4. Correct paragraph and version of VVS was not referred in the relevant cell ER calculation sheet(ref: Cell K3, tab "Generation Detail_DBPL")
5. It was noted from section D.2 of the MR that the calibration of the meters installed at 220 KV Ketu Kalan GSS of Suzlon(Location 57 and 58) was delayed ,however the PP has not applied the correction factor to the measured values to address the delay.

In response the PP has submitted the revised PDD^{/2/}: VVM to VVS PDD^{/1.1/}, revised MR^{/3/} and revised ER calculation sheet^{/4/} making the necessary corrections as per the comments. The assessment team has reviewed the documents and confirmed that all the issues are addressed satisfactorily, hence **CAR #7** was closed out. For detailed discussion please refer to **CAR #7** under section 9 of this report.

3.2.3 Permanent changes from registered monitoring plan or applied methodology

There are no permanent changes from the approved monitoring plan or applied methodology^{/18/} during the current monitoring period. It was verified and confirmed from the registered PDD^{/1/}, the revised PDD^{/2/} and the applied methodology and the on-site verification.

3.2.4 Changes to project design of registered project activity

There are no changes to the project design of the registered project activity during the current monitoring period. It was verified and confirmed from the registered PDD, the revised PDD and the applied methodology and the on-site verification.

3.2.5 Changes to start date of crediting period

There is no change to the start date of the crediting period. It was verified and confirmed from the UNFCCC project webpage.

3.3 Remaining Issues, CAR's, FAR's from Previous Validation or Verification

This is the first verification of the project activity. There are no pending issues from the validation or the previous verification. This was verified and confirmed from the project documents on the UNFCCC project webpage^{/11/}.

3.4 Completeness and accuracy of Monitoring

3.4.1 Verification of monitoring of parameters

Monitoring of reductions in GHG emissions to result from the registered project have been implemented in accordance with the monitoring plan contained in the registered PDD and the revised PDD^{/2/}. The monitoring mechanism, including the data collection system, is effective and reliable.

The project has been registered with the approved methodology AMS ID, version 17, dated 17/06/2011. The assessment team verified the monitoring plan outlined in the registered PDD and the revised PDD^{/2/} against the methodology AMS ID version 17 and confirms that the monitoring plan is in accordance with the approved methodology applied by the project activity.

The monitoring parameters defined by in the monitoring plan^{/2/} are:

- i. E_{Gy} – Net electricity generation supplied by project activity to the grid.
- ii. $\sum E_{n,y}$ – The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single common feeder at a substation on a particular site.
- iii. $\sum E_{m,y}$ – The summation of total Electricity Generated at the controller from all the WTGs including project activity connected to single feeder at a particular site.
- iv. E_{JMR, Export} – Total electricity export by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.
- v. E_{JMR, Import} – Total electricity import by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.

The analysis of the compliance of the actual monitoring, of the above mentioned parameters, with the requirements of the applied methodology and the registered monitoring plan is discussed in the tables below:

EG_{BL,y} – Net electricity generation supplied to the grid by the project activity

Monitoring Report, onsite checks Registered & revised PDD Monitoring Plan & Approved Methodology	Requirement in the applicable methodology and relevant EB Documents	Requirement in the registered/ revised PDD monitoring plan	Implementation of the project	Conclusion on the compliance of the implementation with the monitoring plan & applicable methodology.
Data/Parameter	EG _{facility,y}	EG _{BL,y}	EG _{BL,y}	In compliance, since EG _{BL,y} = EG _{facility,y} .
Description	Quantity of net electricity supplied to the grid in year y	Net Electricity supplied by project activity to the grid	Net Electricity supplied by the project activity to the grid	In compliance
Measured/Calculated /Default	Measured	Calculated based on measured parameters	Calculated based on measured parameters	The net electricity supplied to the grid by the project activity is calculated by state utility from the directly measured values. The PP has no control in this calculation. Hence, in compliance with the monitoring plan and methodology
Source of data	Electricity meter	Monthly credit report/ Share of electricity generation by state electricity utility.	Monthly credit report/ Share of electricity generation by state electricity utility.	In compliance
Monitoring equipment	Electricity meter	Not Applicable since this is a calculated parameter	Not Applicable since this is a calculated parameter	In compliance. Since this parameter is calculated from 4 other measured parameters, the meter details are covered under the measured parameters.
Measuring/Reading/ Recording frequency	Continuous measurement and at least monthly recording	Monthly recording	Monthly Recording, the meters used to measure the parameter are capable of continuous measurement.	In compliance
Calculation method (if applicable)	Not Applicable	EG _{BL,y} = Export Units – Import Units	EG _{BL,y} = Export Units – Import Units	In compliance Calculation procedure is described in section C of MR and in section B.7.2 of registered PDD/revised PDD is followed.
QA/QC procedures	Measurements are undertaken using energy meters. Calibration should be undertaken as prescribed in the relevant paragraph of .General Guidelines to SSC CDM Methodologies. If applicable, measurement results shall be cross checked with records for sold/purchased electricity(e.g. invoices/receipts).	The recording frequency will be on monthly basis. The meters are of high accuracy class (0.2s) are used to measure the parameters used in calculation of EG _{BL,y} . Meters are calibrated annually by State Electricity Board officials in the presence of Suzlon representative. Monthly values of EG _{BL,y} will be cross checked with the invoices raised to state utility.	The recording frequency is on monthly basis. The meters of high accuracy class (0.2s) are used to measure the parameters used in calculation of EG _{BL,y} . Meters are calibrated annually by State Electricity Board officials in the presence of Suzlon representative. Monthly values of EG _{BL,y} is cross checked with the invoices raised to state utility.	In compliance

In summary, the actual monitoring for $EG_{BL,y}$ is in compliance with the applied methodology and the monitoring plan described in registered PDD and the revised PDD.

The emission reduction calculation for the current monitoring period has not considered the $EG_{BL,y}$ data for the period 23/04/2012 to 01/05/2012. $EG_{BL,y}$ data is considered from the monthly JMR statement. As the start date of this monitoring period is from 23/04/2012, April 2012 billing cycle of the generated electricity does not match with this timeframe; therefore the PP has decided not to consider the data for the period 23/04/2012 to 01/05/2012 for emission reduction calculation. This approach is found legitimate and conservative, thus accepted.

$EG_{JMR, Export}$, (Total electricity export by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter):

Monitoring Report, onsite checks	Requirement in the applicable methodology and relevant EB Documents	Requirement in the registered/revised PDD monitoring plan	Implementation of the project	Conclusion on the compliance of the implementation with the monitoring plan & applicable methodology.
Registered and revised PDD Monitoring Plan & Approved Methodology				
Data/Parameter		$EG_{JMR, Export}$	$EG_{JMR, Export}$	In compliance
Description		Total electricity export by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.	Total electricity export by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.	In compliance
Measured/Calculated /Default		Measured	Measured	In compliance
Source of data		Joint meter reading sheet/ Energy breakup sheet monitored by state electricity utility through respective feeder meter at substation.	Joint meter reading sheet/ Energy breakup sheet monitored by state electricity utility through respective feeder meter at substation.	In compliance
Monitoring equipment	Not applicable. As mentioned above this parameter is not defined in the monitoring methodology.	Energy meter	Energy meter	In compliance
Measuring/Reading/ Recording frequency		Continuous measurement and monthly recording	Continuous measurement and monthly recording	In compliance
Calculation method (if applicable)		Not applicable as this is a measured parameter.	Not applicable as this is a measured parameter.	In compliance
QA/QC procedures		Other than main meter, there is check meter to verify the accuracy of main meter. The calibration of the meters will be done by state utility as per the schedule mentioned in PPA. Other than periodic calibration of the meters the reading of both meters, will be matched every month.	Corresponding to each main meter a check meter is also installed at site, just to cross check accuracy of data recorded by main meter. The calibration of meters is conducted by state utility as per the schedule mentioned in the PPA. Monthly reading recorded by main and check meters during current monitoring period is matched and no discrepancy found in this regard.	In compliance

In summary, the actual monitoring for $EG_{JMR, Export}$ is in compliance with the monitoring plan described in the registered PDD and the revised PDD.

$EG_{JMR, Import}$ – Total electricity import by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter

Monitoring Report, onsite checks Registered and revised PDD Monitoring Plan & Approved Methodology	Requirement in the applicable methodology and relevant EB Documents	Requirement in the registered/revised PDD monitoring plan	Implementation of the project	Conclusion on the compliance of the implementation with the monitoring plan & applicable methodology.
Data/Parameter	Not applicable. As mentioned above this parameter is not defined in the monitoring methodology.	$EG_{JMR, Import}$	$EG_{JMR, Import}$	In compliance
Description		Total electricity import by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.	Total electricity import by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.	In compliance
Measured/Calculated /Default		Measured	Measured	In compliance
Source of data		Joint meter reading sheet/ Energy breakup sheet monitored by state electricity utility through respective feeder meter at substation.	Joint meter reading sheet/ Energy breakup sheet monitored by state electricity utility through respective feeder meter at substation.	In compliance
Monitoring equipment		Energy meter	Energy meter	In compliance
Measuring/Reading/ Recording frequency		Continuous measurement and monthly recording	Continuous measurement and monthly recording	In compliance
Calculation method (if applicable)		Not applicable as this is a measured parameter.	Not applicable as this is a measured parameter.	In compliance
QA/QC procedures		Other than main meter, there is check meter to verify the accuracy of main meter. The calibration of the meters will be done by state utility as per the schedule mentioned in PPA. Other than periodic calibration of the meters the reading of both meters, will be matched every month.	Corresponding to each main meter, a check meter is also installed at site, just to cross check accuracy of data recorded by main meter. The calibration of meters is conducted by state utility as per the schedule mentioned in the PPA. Monthly reading recorded by main and check meters during current monitoring period is matched and no discrepancy found in this regard.	In compliance

In summary, the actual monitoring for $EG_{JMR, Import}$ is in compliance with the monitoring plan as described in the registered PDD and the revised PDD.

$$\sum_{\emptyset}^n EG_{n,y}$$

(The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single common feeder at a substation on a particular site):

Monitoring Report, onsite checks	Requirement in the applicable methodology and relevant EB Documents	Requirement in the registered/revised PDD monitoring plan	Implementation of the project	Conclusion on the compliance of the implementation with the monitoring plan & applicable methodology.
Registered and revised PDD Monitoring Plan & Approved Methodology				
Data/Parameter		$\sum_{\emptyset}^n EG_{n,y}$	$\sum_{\emptyset}^n EG_{n,y}$	In compliance
Description		The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single common feeder at a substation on a particular site.	The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single common feeder at a substation on a particular site.	In compliance
Measured/Calculated /Default		Measured	Measured	In compliance
Source of data	Not applicable. As mentioned above this parameter is not defined in the monitoring methodology.	Log sheet records in Suzlon database at CMS.	Log sheet records in Suzlon database at CMS.	In compliance
Monitoring equipment		Controller meter	Controller meter	In compliance
Measuring/Reading/ Recording frequency		Continuously measured and monthly recorded	Continuously measured and monthly recorded	In compliance
Calculation method (if applicable)		Not applicable as this is a measured parameter.	Not applicable as this is a measured parameter.	Not applicable
QA/QC procedures		The controller end generation of each WTG is continuously recorded & monitored at CMS. The controller end generation & other sensitive parameter monitoring followed can be cross verified at CMS database.	The controller meter integrated with each WTG continuously records the electricity generation. The controller generation data is cross checked with CMS database maintained by Suzlon at site.	In compliance

In summary the parameter, "The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single common feeder at a substation on a particular site" is in compliance with the monitoring plan as described in the registered PDD and the revised PDD.

$$\sum_{\emptyset}^m EG_{m,y}$$

The summation of total Electricity Generated at the controller from all the WTGs including project activity connected to single feeder at a particular site

Monitoring Report, onsite checks Registered and revised PDD Monitoring Plan & Approved Methodology	Requirement in the applicable methodology and relevant EB Documents	Requirement in the registered/revised PDD monitoring plan	Implementation of the project	Conclusion on the compliance of the implementation with the monitoring plan & applicable methodology.
Data/Parameter	Not applicable. As mentioned above this parameter is not defined in the monitoring methodology.	$\sum_{\emptyset}^m EG_{m,y}$	$\sum_{\emptyset}^m EG_{m,y}$	In compliance
Description		The summation of total Electricity Generated at the controller from all the WTGs including project activity connected to single feeder at a particular site.	The summation of total Electricity Generated at the controller from all the WTGs including project activity connected to single feeder at a particular site.	In compliance
Measured/Calculated /Default		Measured	Measured	In compliance
Source of data		Log sheet records in Suzlon database at CMS.	Log sheet records in Suzlon database at CMS.	In compliance
Monitoring equipment		Controller meter	Controller meter	In compliance
Measuring/Reading/ Recording frequency		Continuously measured and monthly recorded	Continuously measured and monthly recorded	In compliance
Calculation method (if applicable)		Not applicable as this is a measured parameter.	Not applicable as this is a measured parameter.	Not applicable
QA/QC procedures		The controller end generation of each WTG is continuously recorded & monitored at CMS. The controller end generation & other sensitive parameter monitoring followed can be cross verified at CMS database.	The controller meter integrated with each WTG continuously records the electricity generation. The controller generation data is cross checked with CMS database maintained by Suzlon at site.	In compliance

In summary the parameter, “The summation of total Electricity Generated at the controller from all the WTGs including project activity connected to single feeder at a particular site” is in compliance with the monitoring plan as described in the registered PDD and the revised PDD.

Discussion of CARs/CLs:

CAR #2 was raised asking clarification for the following issues:

1. Details of meters used to measure the parameters **EG_{JMR, export}** & **EG_{JMR, import}** were not provided in the monitoring report.
2. In section D.2 of MR, calculation method for the parameters **EG_{JMR, export}** & **EG_{JMR, import}** was discussed, however, it was not clear how the calculation method is applicable if the parameters are directly measured by energy meters as mentioned in the MR.

In response, the PP submitted the revised MR^{/3/} and clarified that:

1. Details of energy meters used to measure the parameters **EG_{JMR, export}** & **EG_{JMR, import}** are provided in section D.2 of revised MR.
2. Parameters **EG_{JMR, export}** & **EG_{JMR, import}** are directly measured hence no calculation method is applicable. The relevant corrections are made in section D.2 of MR.

The revised MR submitted by the PP is checked against the response provided by the PP and found to be in compliance hence CAR #2 was closed out. For detailed discussion please refer to **CAR #2** under section 9 of this report.

CAR #4 was raised asking clarification for the following issues:

1. Calibration details of the meters installed at Suzlon GSS and 220KV EB GSS were not provided in the MR.
2. Calibration certificates of the meters valid for the current monitoring period were not submitted.

In response, the PP submitted the revised MR^{/3/} and calibration certificates^{/9/} and clarified that:

1. Calibration details for all meters are mentioned in section D.2 of the revised MR.
2. Calibration certificates valid for current monitoring period for all meters are included.

Calibration details of meters provided in section D.2 of revised MR were cross checked with the calibration certificates submitted and found to be consistent; hence CAR #4 was closed. For detailed discussion please refer to **CAR #4** under section 9 of this report.

Opinion:

In accordance with paragraphs 280-281 of the VVS version 07.0, the assessment team confirms that the actual monitoring activities observed on site are in compliance with the registered PDD and the revised PDD^{/2/}. The applicable parameters stated in the revised PDD^{/2/} and the applied methodology has been sufficiently monitored. The responsibilities and authorities for monitoring and reporting are in accordance with what is stated in the registered PDD and the revised PDD^{/2/}.

3.4.2 Verification of implementation of sampling plan

Not applicable to this project activity.

3.5 Accuracy of Equipment

All the meters used to measure the parameters are of accuracy class 0.2s as verified through calibration certificates^{/9/} and also physical inspection during the site visit. As per CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006 and Amendments Notified on 26/06/2010^{/17/} No. 502/6/2009/DP&D/D-I which is considered as national standard, interface meters are required to be of 0.2 accuracy class. Hence, the accuracy class of 0.2s for the energy meters installed at the project activity site are found to be appropriate. The main meter and check meter are installed and owned by the State Electricity Board. The metering equipments are maintained as per the provisions of the PPA^{/10/}.

The metering systems, which are summarised in the table below, have been verified through the following means:

- Physical inspection of the meters during the site visit
- Interviewing the staff at the sub-station
- Interviewing the staff of the O&M contractor
- Meter calibration certificates^{9/} valid for the current monitoring period

Based on the above mentioned means of verification, the assessment team confirms that:

- The meter details are correctly mentioned in the final MR.
- The meter details are consistent throughout all verified documents.
- The entire metering system is in the custody of the state utility. The PP has no control on the same.
- The responsibilities and authorities for monitoring and reporting are in accordance with what is stated in the revised PDD.
- The accuracy of the equipment used for monitoring is in accordance with the relevant guidance provided by the CDM Executive Board.

Monitoring equipment	Monitoring parameter	S/N	Location	Level	Calibration frequency requirement	Calibration date	Validity	Are there delays in calibration ?	Calibration Entity	Accreditati on Certificate for the calibration entity Issuing authority Relevant
Energy Meter	EG ₁ , JMR, Export & EG _{JMR} , import	Main meter: RJB 00320	220 KV EB GSS	0.2s	Annually	19/12/2012 and 15/01/2014	14/01/2015	Yes	RRVPNL	NABL accredited
		Check meter: RJB 00319				19/12/2012 and 15/01/2014	14/01/2015			
Energy Meter (33 Kv Suzlon GSS)	--	Main meter: RJB 00323	33 KV Suzlon GSS (SEL-57)			19/03/2012 and 29/01/2014	28/01/2015			
		Check meter: RJB 00322				19/03/2012 and 29/01/2014	28/01/2015			
		Main meter: RJB 00315	33 Kv Suzlon GSS (SEL-58)			19/03/2012 and 29/01/2014	28/01/2015			
		Check meter: RJB 00324				19/03/2012 and 29/01/2014	28/01/2015			

Note: Only the data recorded by the meters installed 220 KV Tinwari GSS and the generation recorded by controller meters of WTGs is directly used to calculate the net electricity supplied to the grid. However the delay in calibration of meters installed at 220 KV Ketu Kalan GSS of Suzlon (Location 57 and 58) is also identified during the current monitoring period.

As a conservative approach the PP has applied the error factor for the entire monitoring period to address the delay in calibration for the meters installed at 220 KV Tinwari GSS as well as the meters installed at 220 KV Ketu Kalan GSS of Suzlon. The same is accepted as conservative approach though meters are not under control of PP.

3.6 Summary of compliance with the calibration frequency requirements for measuring instruments.

The calibration of the measuring equipment as mentioned in section 3.5 above has an impact on the claimed emission reductions. In case of emergency situation only, when the details from the main meter are not available, the backup meter will be used by the PP for data recording. As per the revised PDD and the power purchase agreement signed by the PP with the state utility, calibration of energy meters will be done by the state electricity authority annually. No such emergency situation has been observed or reported during the current monitoring period, hence only main meter data have been referred for the calculation of emission reduction. This was confirmed by the assessment team by interviewing the plant personnel during the verification site visit.

The CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006^{/17/} which is considered as national standard mentions that "All interface meters shall be tested at least once in five years." Hence, the stipulated calibration frequency as once in a year is appropriate.

As mentioned in the registered PDD and the revised PDD, the meters are to be calibrated once in a year. The date of calibration has been verified against the calibration certificates^{/9/}. It is observed that the calibrations of all meters installed at Tinwari substation (220 Kv EB GSS) and at 220 KV Ketu Kalan GSS of Suzlon were not carried out in line with the calibration frequency as mentioned in registered PDD and the revised PDD as evident from the date of calibration verified in section 3.5 above.

The assessment team has verified the latest calibration certificates and confirmed that the results of delayed calibration shows the error in the meters which is smaller than maximum permissible error; hence in line with the guidelines provided under paragraph 283 of VVS version 07, the PP has applied the maximum an error factor (+/-0.2%) to the measured values corresponding to complete monitoring period.

This is verified through the ER calculation sheet and found to be appropriate and hence accepted. Also in line with the paragraph 284 of VVS version 07, the assessment team able to confirm that the maximum permissible error due to delayed calibration is applied:

- In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed emission reductions.
- For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.

3.7 Accuracy of Emission Reduction Calculations

The calculation of emission reductions in the latest excel spreadsheet submitted by the PP is found to be correct. The findings and the satisfactory responses regarding the ER calculations have been discussed further down in this section. The details of the reported and the verified values for all parameters are listed in section 4, 'Calculation of Emission Reductions'.

The parameter $EG_{BL,y}$ is used for the emission reduction calculations. The parameters $EG_{JMR,export}$ and

$EG_{JMR,import}$ $\sum_0^n EG_{n,y}$ and $\sum_0^m EG_{m,y}$ are used to calculate $EG_{BL,y}$. The PP has provided the complete set of data for all the monitored parameters in the ER spreadsheet^{/4/}. This data has been verified as described in section 4 of this report. The formulae & method used to calculate the baseline emissions, project emissions and leakage are appropriate and in line with the approved methodology AMS I.D version 17^{/18/}.

As per the CER excel spreadsheet^{/4/}, the net emission reductions for the current monitoring period were verified as 15,002 tCO₂ for the current monitoring period.

According to the assessment in sections 3.4, 3.5, 3.6 and as per the requirements of paragraph 291 of the VVS version 07.0^{/14/} it has been confirmed by the assessment team that in the final version of the MR^{/3/} and the ER calculation spreadsheet^{/4/}:

- (a) All the data requested for the ER calculation in this monitoring period were monitored and recorded in a complete manner
- (b) All the reported data have been checked against the original data source where they were quoted from
- (c) The methods and formulae for calculation of baseline emissions, project emissions and leakage specified in the registered/revised PDD^{/1 & 2/} have been followed
- (d) The emission factor has been applied correctly in accordance with the registered/revised PDD.

Discussion of CARs/CLs

CL #3 was raised asking clarification for the following issues:

- i. Reason for the variation in actual emission reduction achieved during the current monitoring period as compared to the estimated emission reduction as mentioned in the registered PDD was not mentioned in section E.6 of the MR.
- ii. Value of **EG_{BL,y}** calculated by apportioning procedure was found to be lesser than the same provided in monthly JMR, it was not clear why minimum values of **EG_{BL,y}** is not considered for ER calculation.

In response the PP submitted the revised MR^{/3/} and revised ER calculation sheet^{/4/} and clarified that:

- i. The actual ER achieved during the current monitoring period is lesser than the same estimated in the registered PDD for the same period. This is due to low PLF achieved during the current monitoring period. This information is added in section E.6 of the revised MR.
- ii. Minimum values of **EG_{BL,y}** is used for emission reduction calculation in the revised ER sheet.

The revised MR^{/3/} and the revised ER calculation sheet^{/4/} submitted by the PP were checked against the response provided by the PP and found to be in compliance and consistent hence CL #3 was closed out. For detailed discussion please refer to **CL #3** under section 9 of this report.

CAR #6 was raised requesting the clarification for the following issues:

1. Equation used in the ER sheet to calculate the value of **EG_{BL,y}** up to December 2012 was not correct.
2. Monthly values of **EG_{BL,y}**, reported in the ER sheet were not sourced from JMRs in line with the requirement of the monitoring plan mentioned in the registered PDD and revised PDD.
3. Information about the delay in calibration of the specific meters was not provided in the monitoring report.

In response, the PP has provided the revised MR^{/3/}, revised ER calculation sheet^{/4/}. The assessment team has checked the revised documents, since all the issues are addressed satisfactorily, hence CAR #6 was closed out. For detailed discussion please refer to **CAR #6** under section 9 of this report.

3.8 Quality of Evidence to Determine Emission Reductions

Critical parameters used for the determination of the Emission Reductions are discussed in section 3.4 above. All the data recorded is in compliance with the monitoring report.

3.9 Management and operational System and Quality Assurance

The company involved in the project monitoring has ISO 9001:2008^{/20/} quality assurance systems implemented; therefore we can confirm that the management system of the CDM project is in place, with the responsibilities properly identified and in place. The same is confirmed through interview during the site visit.

In order to verify the data quality, the company involved in the project works in accordance with a quality assurance procedure, which establishes the implementation of the operational and management structure.

3.10 Data from External Sources

The baseline emission factor was determined ex-ante and fixed for the entire crediting period as mentioned in section B.6.2 of registered PDD and the revised PDD^{/2/}. The emission factor was calculated by the combined margin approach with 75% and 25% weights for OM & BM respectively, using data available in CO₂ Baseline Database for the Indian Power Sector version 5 published by Central Electricity Authority^{/19/} (CEA).

The value of baseline emission factor used in the emission reduction calculations for the current monitoring period is reported in the MR^{/3/} as 0.9225 tCO₂/ MWh. It is found to be consistent with the value of EF mentioned in the registered/revised PDD^{/1&2/}. This data is publicly available and verified to be acceptable.

4. Calculation of Emission Reductions

Parameter	Reported Value(kWh) MR version 01,dated 21/01/2014	Verified Value(kWh) MR version 09,dated 12/12/2014
$EG_{BL,y}$	17,184,000	16,264,911
$\sum_0^n EG_{n,y}$	18,013,411	17,092,044
$\sum_0^m EG_{m,y}$	389,349,837	368,449,866
$EG_{JMR,export}$	373,542,400	353,377,600
$EG_{JMR,import}$	2,278,400	2,192,000

The baseline emissions (BE_y) are calculated as follows:

$$\begin{aligned}
 BE_y &= EG_y \text{ (MWh)} \times \text{Grid emission Factor (t CO}_2\text{e/MWh)} \\
 &= 16,264 \times 0.9225 \\
 &= 15,002 \text{ tCO}_2\text{e (rounded down)}
 \end{aligned}$$

As per methodology and as described in section B.6.3 of the registered PDD and revised PDD, Project emissions (PE_y) and leakage (Ly) and are zero.

Thus emission reductions are calculated as follow:

$$\begin{aligned}
 ER_y &= BE_y - PE_y - Ly \\
 &= 15,002 - 0 - 0 \\
 &= 15,002 \text{ tCO}_2\text{e}
 \end{aligned}$$

Emission Reductions:

Period	Reported Value (as per the web hosted MR) tCO ₂ e	Verified Value tCO ₂ e (as per Final MR)	If Different, Summary of Issues That Caused the Difference
23/04/2012 to 04/12/2013	15,851	15,002	Due to unavailability of data, the electricity generated for the period 23/04/2012 to 02/05/2012 has not been considered for emission reduction calculation (Ref: CAR #1).
CERs (Up to 31 December 2012 (1st commitment period);)	7,894	7,035	Calibration delay for the meters installed at 220 KV Ketu Kalan GSS of Suzlon (Location 57and 58) is applied(CAR #7).
CERs (From 1 January 2013 onwards.	7,957	7,967	

5. Recommendations for Changes in the Monitoring Plan

No recommendation is made for changes in the registered monitoring plan^{/1/} during the current monitoring period.

6. Overview of Results

Assessment Against the Provisions of Decision 17/CP.7:

Is the project documentation in accordance with the requirements of the registered PDD and relevant provision of decision 17/CP.7, EB decisions and guidance and the COP/MOP?

Yes. The results of the compliance assessment are recorded in the verification checklist which is used as an internal report only.

Have on-site inspections been performed that may comprise, inter alia, a review of performance records, interviews with project participants and local stakeholders, collection of measurements, observations of established practices and testing of the accuracy of monitoring equipment?

Yes. Mr. Ravikant Soni visited the site and undertook interviews, collected data, audited the implementation of procedures, checked calibration certificates and checked data, inter alia.

The results of the site visit are recorded in the verification checklist which is used as an internal report only.

The evidences have been checked and collected. The final monitoring report is attached with this verification report.

Has data from additional sources been used? If yes, please detail the source and significance.

Emission Factor of the Grid used for emission reduction calculation has been determined ex-ante as verified through registered PDD (version 04, dated 18/11/2011) and the revised PDD. The value used is 0.9225 tCO₂/MWh fixed for the entire crediting period.

Please review the monitoring results and verify that the monitoring methodologies for the estimation of reductions in anthropogenic emissions by sources have been applied correctly and their documentation is complete and transparent.

Yes. The monitoring methodology has been correctly applied and the monitoring report and supporting references are complete and transparent.

Have any recommendations for changes to the monitoring methodology for any future crediting period been issued to the project participant?

No.

Determine the reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the CDM project activity, based on the data and information using calculation procedures consistent with those contained in the registered project design document and the monitoring plan.

*The data used in anthropogenic emission reduction calculation is consistent with those contained in the monitoring plan of the registered PDD and revised PDD. The emission reduction was 16,580 tCO₂ for the period 23/04/2012 to 04/12/2013 (first and last days included) as per the estimation made in the registered PDD. The actual emission reduction has been verified as **15,002** tCO₂ for the same period. The difference between estimated and actual ER is discussed in section 3.1 of this report.*

Identify and inform the project participants of any concerns related to the conformity of the actual project activity and its operation with the registered project design document. Project participants shall address the concerns and supply relevant additional information.

“No such non conformity of the actual project activity and its operation with the registered project design document has been observed.” However, some corrections were required to the registered PDD, in line with the guidelines provided under Appendix 1 of PS version 7.0. This is discussed in section 3.2 of this report.

Post monitoring report on UNFCCC website

Yes, the monitoring report is available at ref. 5923 on UNFCCC website

<http://cdm.unfccc.int/Projects/DB/SIRIM1332321083.17/view>

7. Verification and Certification Statement

SGS United Kingdom Ltd has been contracted by M/s Devki Builders Pvt. Ltd. to perform the verification of the emission reductions reported for the CDM project "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.", in the period 23/04/2012 to 04/12/2013 (first and last days included).

The verification is based on the validated and registered project design document and the monitoring report for this project. Verification is performed in accordance with section I of Decision 3/CMP.1, and relevant decisions of the CDM EB and CoP/MoP. The scope of this engagement covers the verification and certification of greenhouse gas emission reductions generated by the above project during the above mentioned period, as reported in Monitoring Report, version 09, dated 12/12/2014.

The management of M/s Devki Builders Pvt. Ltd. is responsible for the preparation, calculation and determination of GHG emission reductions from the project. The development and maintenance of records and reporting procedures are in accordance with the monitoring report.

It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period 23/04/2012 to 04/12/2013 (first and last days included) based on the reported emission reductions in the Monitoring Report version 09 dated 12/12/2014 for the same period.

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

SGS confirms that the project is implemented as described in the validated and registered project design documents. Based on the information we have seen and evaluated, we confirm the following:

Project Title:	Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.
UNFCCC Reference Number:	5923
Registered PDD and Revised PDD Used for Verification:	Registered PDD version 04, dated 18/11/2011 and the revised PDD version 09, dated 05/12/2014
Methodology Used for Verification:	AMS ID, version 17
Applicable Period:	From 23/04/2012 to 04/12/2013 (first and last days included)
Total GHG Emission Reductions Verified:	15,002 tCO ₂

Signed on behalf of the Verification Body by Authorized Signatory



Signature:

Name: Jonathan Hall

Date: 24/12/2014

8. Document References

1. Registered Project Design Document, version 04 dated 18/11/2011

2. Revised PDD

- a. Version 05, dated 20/06/2014
- b. Version 06, dated 29/07/2014
- c. Version 07, dated 10/09/2014
- d. Version 08, dated 03/12/2014
- e. Version 09, dated 05/12/2014

PDD Version	Date of revision	Main changes and reasons for revision
Version 05	20/06/2014	<ul style="list-style-type: none"> Name of village and 220 Kv EB GSS is corrected in the PDD (CAR #5)
Version 06	29/07/2014	<ul style="list-style-type: none"> Revised PDD is updated in latest available template (CAR #5)
Version 07	10/09/2014	<ul style="list-style-type: none"> Corrections identified to the registered PDD are mentioned under appendix 6 of revised PDD(CAR #5).
Version 08	03/12/2014	<ul style="list-style-type: none"> Information in section B.6.4 is updated(CAR #7)
Version 09	05/12/2014	<ul style="list-style-type: none"> Error at last page of revised PDD is rectified (CAR #7)

3. Monitoring Reports

- a. Monitoring Report Version 01, dated 21/01/2014
- b. Monitoring Report Version 02, dated 14/05/2014
- c. Monitoring Report Version 03, dated 20/06/2014
- d. Monitoring Report Version 04, dated 16/07/2014
- e. Monitoring Report Version 05, dated 29/07/2014
- f. Monitoring Report Version 06, dated 10/09/2014
- g. Monitoring Report Version 07, dated 21/10/2014
- h. Monitoring Report Version 08, dated 03/12/2014
- i. Monitoring Report Version 09, dated 12/12/2014

MR Version	Date of revision	Main changes and reasons for revision
Version 02	14/05/2014	<ul style="list-style-type: none"> A.5 of MR is updated(CAR #1) Information added in section E.6 of MR(CAR #3) Name of taluka and EB GSS is updated in MR(CAR #5)
Version 03	20/06/2014	<ul style="list-style-type: none"> Calibration details of meters is added in section D.2(CAR #4)
Version 04	16/07/2014	<ul style="list-style-type: none"> Calibration details of meters at 33 Kv Suzlon substation is added in section D.2(CAR #4)
Version 05	29/07/2014	<ul style="list-style-type: none"> MR template is revised to latest version available on the UNFCCC website (CAR #5)
Version 06	10/09/2014	<ul style="list-style-type: none"> Corrections are mentioned in section B.2.2(CAR #5) Start date of current monitoring period is corrected in section E.1(CAR #5)

Version 07	21/10/2014	<ul style="list-style-type: none"> Value of EG_{BL,y} and final ER is corrected throughout the monitoring report.(CAR #6)
Version 08	03/12/2014	<ul style="list-style-type: none"> Specific dates for shut down details for current monitoring period (CAR #7).
Version 09	12/12/2014	<ul style="list-style-type: none"> Value of ER achieved during the current monitoring period is changed due to delay in calibration (CAR #7)

4. ER Calculation sheet <ul style="list-style-type: none"> a. ER calculation sheet version 01, dated 14/05/2014 b. ER calculation sheet version 02, dated 20/06/2014 c. ER calculation sheet version 03, dated 16/07/2014 d. ER calculation sheet version 04, dated 12/09/2014 e. ER calculation sheet version 05, dated 21/10/2014 f. ER calculation sheet version 06, dated 03/12/2014 g. ER calculation sheet version 07, dated 12/12/2014
5. Monthly JMR Reports (which were referred for the period from 23/04/2012 to 04/12/2013) (Note : No JMR available for the specific period 23/04/2012 to 01/05/2012)
6. Monthly generation break up reports for the current monitoring period (from 23/04/2012 to 04/12/2013)
7. Daily electricity generation log book records for current monitoring period (from 23/04/2012 to 04/12/2013)
8. Monthly invoices raised by PP to state utility (for the period from 23/04/2012 to 04/12/2013)
9. Calibration certificates for all the energy meters relevant for the period from 23/04/2012 to 04/12/2013
10. Power Purchase Agreement (PPA), dated 29/09/2009
11. UNFCCC CDM webpage (http://cdm.unfccc.int/Projects/DB/SIRIM1332321083.17/view)
12. Validation report of the project activity, Report No.: SQAS-CDM-ES12880028, dated 21/03/2012
13. Commissioning Certificate for all 4 WTGs, dated 15/10/2009, the certificates mention the date of commissioning as 30/09/2009
14. Clean Development Mechanism Validation and Verification Standard version 07.0 dated 01/06/2014
15. MONITORING REPORT FORM (F-CDM-MR) version 04, dated 25/06/2014
16. Clean Development Mechanism Project Standard version 07.0, dated 01/06/2014
17. CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006 and Amendments Notified on 26/06/2010 No. 502/6/2009/DP&D/D-I
18. Applied methodology AMS I.D Version 17,dated 03/06/2011
19. CEA Database version 05 (http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm)
20. Suzlon (EPC Contractor) ISO 9001:2008 Certificates ,dated 20/04/2012

9. Findings Overview

Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	06	01	00

Date:	12/03/2014	Raised by:	Assessment team		
Type:	CAR	Number:	01	Reference:	AU4
Lead Assessor Comment:			Date: 12/03/2014		
The PP is requested to provide the ER calculation sheet for this MP.					
The PP is requested to kindly include the relevant dates in section A.1 of the MR, as per the requirement of EB 75, Annex 07.					
The PP is requested to correct the crediting period of the project activity in section A.5 of the MR. Also the source web link is not correct for the same.					
Project Participant Response:			Date: 14/05/2014		
ER calculation sheet has now been submitted to DoE for verification.					
The relevant dates have now been updated in section A.1 of the MR which is in line with EB 75, Annex 07.					
The crediting period as well as web link has now been updated in section A.5 of MR.					
Documentation Provided as Evidence by Project Participant:					
ER calculation sheet, version 01,dated 14/05/2014					
Monitoring Report, version 02 ,dated 14/05/2014					
Information Verified by Lead Assessor:					
ER calculation sheet, version 01, dated 14/05/2014 and Monitoring Report, version 02, dated 14/05/2014 is checked by the assessment team.					
Reasoning for not Acceptance or Acceptance and Close Out:			Date: 26/05/2014		
The PP has provided the ER sheet; this was checked by the assessment team. The PP was requested to clarify, why the emission reduction calculation has been shown from May 2012. Open					
The PP has provided the relevant dates in section A.1 of the MR. This was checked by the assessment team. Closed.					
Monitoring period start date has not been corrected in MR. Open.					
Project Participant Response:			Date: 20/06/2014		
The start date of this monitoring period is from 23/04/2012, but since the billing cycle of the generated electricity does not matches with this date and no JMR is available for the period 23/04/2012 to 01/05/2012, the electricity generated for the period 23/04/2012 to 01/05/2012 has not been considered for emission reduction calculation. This is for simplification and a conservative approach. Accordingly the emission reduction claimed from 02/05/2012 to 04/12/2013 (Inclusive both days) based on JMR's issued by Jaipur Discom.					
Monitoring period start date now has been corrected in MR					
Documentation Provided as Evidence by Project Participant:					
Monitoring Report, version 03, dated 20/06/2014					
CER sheet version 02,dated 20/06/2014					
Information Verified by Lead Assessor:					
The following documents are checked					
Monitoring Report version 03, dated 20/06/2014					
CER sheet version 02, dated 20/06/2014					
Reasoning for not Acceptance or Acceptance and Close Out:					
PP has considered the generation from 02/05/2012 onwards for current monitoring period due to unavailability of data from 23/04/2012 to 01/05/2012. This approach is conservative and hence accepted but PP did not mention the specific dates for the monitoring months in CER calculation sheet for transparency. Open					
PP has updated the start date of current monitoring period in revised MR, found to be correct. Closed					
Acceptance and Close out by Lead Assessor: Open			Date: 30/06/2014		

Project Participant Response:	Date: 16/07/2014
Specific dates now have been updated in CER calculation sheet.	
Documentation Provided as Evidence by Project Participant:	
CER sheet version 03,dated 16/07/2014	
Information Verified by Lead Assessor:	
Revised CER sheet version 03 dated 16/07/2014 is checked	
Reasoning for not Acceptance or Acceptance and Close Out:	
PP has mentioned the specific dates for each month belongs to current monitoring period, found to satisfactory. CAR #1 is closed.	
Acceptance and Close out by Lead Assessor:	Date: 18/07/2014

Date:	12/03/2014	Raised by:	Assessment team		
Type:	CAR	Number:	02	Reference:	AU4
Lead Assessor Comment:			Date: 12/03/2014		
The PP is requested to provide the meter details used to measure the parameter EG_{JMR,export} , & EG_{JMR,import} , including calibration details of the meters. Further the PP is requested to clarify, how the calculation method for these two parameter is relevant considering the fact that both the parameters as measured parameters.					
Project Participant Response:			Date: 14/05/2014		
The meter details of the parameter EG_{JMR,export} , & EG_{JMR,import} , including calibration details of the meters has now been updated in MR. EG_{JMR,export} , & EG_{JMR,import} is measured parameter which connected to the single common feeder at the substation and the same has been monitored / measured through main meter & check meter.					
Documentation Provided as Evidence by Project Participant:					
Joint Meter Reading for current monitoring period Credit Report for current monitoring period					
Information Verified by Lead Assessor:					
Joint Meter Reading and Credit Report for current monitoring period is checked					
Reasoning for not Acceptance or Acceptance and Close Out:					
The PP is requested to provide calibration details of the meters relevant to the current MP, i.e., from 23/04/2014 to 04/12/2013. OPEN. The response provided by the PP was found to be correct. Closed.					
Acceptance and Close out by Lead Assessor: open			Date: 26/05/2014		
Project Participant Response:			Date: 20/06/2014		
PP has submitted calibration certificate of the relevant meters of the current MP to DoE for verification.					
Documentation Provided as Evidence by Project Participant:					
Calibration Certificate for current monitoring period					
Information Verified by Lead Assessor:					
Calibration certificates for meter no.-RJB00320,dated 22/12/2012 and 15/01/2014 For meter no.- RJB00319,dated 22/12/2012 and 15/01/2014 is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
As verified through calibration certificates the meters were calibrated on 19/12/2012 and on 15/01/2014 and also calibration results shows that the meter were working satisfactorily, hence accepted.					
Acceptance and Close out by Lead Assessor:			Date: 30/06/2014		

Date:	18/02/2014	Raised by:	Assessment team		
Type:	CL	Number:	03	Reference:	AU4
Lead Assessor Comment:			Date: 18/02/2014		
The PP is requested to justify the variation in actual emission reduction achieved during this MP as compared to the estimated emission reduction as mentioned in the registered PDD.					
Project Participant Response:			Date: 14/05/2014		
The reason for reduction in CER's is accounted to the fact of lower CUF (i.e. 19.5%) as compared to registered PDD (i.e. 22%).					
The major part of the difference is due to Down Time (4,169 Hours) & poor wind velocity (reflected from poor overall CUF) for the project activity.					
Documentation Provided as Evidence by Project Participant:					
Daily Generation Report for current monitoring period Monitoring Report, version 02,dated 14/05/2014					
Information Verified by Lead Assessor:					
Daily Generation Report for current monitoring period and Monitoring Report version 02 dated 14/05/2014 is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
The ER sheet was checked by the assessment team, the PP is requested to show the calculations for PLF in ER sheet. OPEN.					
Data reported in ER sheet is from May 2012 to November 2013 but the current monitoring period covers the period from 23/04/2012 to 04/12/2013.Please clarify the inconsistency.					
Project Participant Response:			Date: 20/06/2014		
Calculation of PLF in ER Sheet now has been provided.					
The start date of this monitoring period is from 23/04/2012, but since the billing cycle of the generated electricity does not matches with this date and no JMR is available for the period 23/04/2012 to 01/05/2012, the electricity generated for the period 23/04/2012 to 01/05/2012 has not been considered for emission reduction calculation. This is for simplification and a conservative approach. Accordingly the emission reduction claimed from 02/05/2012 to 04/12/2013 (Inclusive both days) based on JMR's issued by Jaipur Discom					
Documentation Provided as Evidence by Project Participant:					
ER calculation Sheet version 02, dated 20/06/2014 Monitoring Report, version 03, dated 20/06/2014					
Information Verified by Lead Assessor:					
Revised ER sheet version 02, dated 20/06/2014 and revised MR version 03, dated 20/06/2014 is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
PP has provided the PLF calculation of 18.39% in the revised ER sheet, found to be satisfactory. Closed.					
Value of $EG_{BL,y}$ calculated by apportioning procedure is lesser than the same provided in monthly JMR, please clarify why minimum values of $EG_{BL,y}$ is not considered for ER calculation.					
Acceptance and Close out by Lead Assessor: Open			Date: 30/06/2014		
Project Participant Response:			Date: 16/07/2014		
Minimum values of $EG_{BL,y}$ has now been considered for ER calculation.					
Documentation Provided as Evidence by Project Participant:					
Monitoring Report, version 04, dated 16/07/2014 CER sheet version 03,dated 16/07/2014					
Information Verified by Lead Assessor:					
Revised monitoring Report, version 04, dated 16/07/2014 and CER sheet version 03, dated 16/07/2014 is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
As per the revised ER calculation sheet, the PP has considered minimum monthly value of $EG_{BL,y}$ for ER calculation, this approach is found to be satisfactory hence accepted.					
CL #3 is closed.					
Acceptance and Close out by Lead Assessor:			Date: 18/07/2014		

Date:	12/03/2014	Raised by:	Assessment team		
Type:	CAR	Number:	04	Reference:	AU4
Lead Assessor Comment:			Date: 12/03/2014		
Calibration details of meters reported in MR is not provided. Calibration details of meters located at 33 KV substations is not provided. Also the calibration certificates of the concern meters are not provided.					
Project Participant Response:			Date: 14/05/2014		
The calibration details have now been updated in MR and the same has now been provided to DOE for verification.					
Documentation Provided as Evidence by Project Participant:					
Monitoring Report, version 02,dated 14/05/2014 Calibration Certificate for current monitoring period					
Information Verified by Lead Assessor:					
Monitoring Report version 02, dated 14/05/2014 and Calibration Certificate for current monitoring period is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
The PP has provided the meter details, however the relevant calibration dates for the applicable monitoring period has not been mentioned. OPEN.					
Project Participant Response:			Date: 20/06/2014		
PP has been provided relevant calibration dates for applicable monitoring period to DoE for verification.					
Documentation Provided as Evidence by Project Participant:					
Monitoring Report, version 03, dated 20/06/2014 Calibration Certificate					
Information Verified by Lead Assessor:					
Revised MR version 03, dated 20/06/2014 and calibration certificates provided by PP is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
PP has provided the calibration details of meters located at 220 KV SEB GSS but the calibration details of meters located at 33KV GSS of Suzlon is not provided. Open					
Acceptance and Close out by Lead Assessor: Open			Date: 30/06/2014		
Project Participant Response:			Date: 16/07/2014		
Calibration certificates of 33 KV GSS Suzlon now has been provided for verification.					
Documentation Provided as Evidence by Project Participant:					
Calibration Certificates of 33 KV GSS Suzlon feeders Monitoring Report version 04, dated 16/07/2014					
Information Verified by Lead Assessor:					
Calibration certificates of meters installed at 33 KV Suzlon GSS and revised MR version 04, dated 16/07/2014 is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
PP has provided the calibration details of meters installed at 33KV Suzlon GSS in the revised MR, the is found to be consistent with the calibration certificates provided, hence accepted.					
CAR #4 is closed					
Acceptance and Close out by Lead Assessor:			Date: 18/07/2014		

Date:	12/03/2014	Raised by:	Assessment team		
Type:	CAR	Number:	05	Reference:	AU4
Lead Assessor Comment:			Date: 12/03/2014		
PDD and MR mention the location of project activity in Dharampur Taluka but the project activity is located at Shergarh taluka. Please clarify the inconsistency observed.					
Name of EB GSS is not found consistent with the same mentioned in JMRs.					
Project Participant Response:			Date: 14/05/2014		
Yes, the project activity is located in Shergarh Taluka so Dharampur Taluka provided in the registered PDD is not correct and is a typo error.					
Documentation Provided as Evidence by Project Participant:					
Monitoring Report, version 02, dated 14/05/2014					
Information Verified by Lead Assessor:					
Monitoring Report, version 02, dated 14/05/2014 was checked by the assessment team.					
Reasoning for not Acceptance or Acceptance and Close Out:					
Name of EB GSS is not corrected in MR. As the location name mentioned in the registered PDD is not correct, please clarify why the revised PDD is not submitted in line with the guidelines provided under appendix 1 of PS version 06.					
Acceptance and Close out by Lead Assessor: Open			Date: 26/05/2014		
Project Participant Response:			Date: 20/06/2014		
Revised PDD has been submitted to DoE for verification.					
Documentation Provided as Evidence by Project Participant:					
Revised PDD version 05, dated 20/06/2014					
Information Verified by Lead Assessor:					
Revised PDD version 05, dated 20/06/2014 is checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
PP has submitted the revised PDD but following issues yet to be addressed: Annex is changed to appendix but not updated in track change mode. Summary of post registration changes is not provided under appendix 06.					
Acceptance and Close out by Lead Assessor: Open			Date: 30/06/2014		
Project Participant Response:			Date: 16/07/2014		
Revised PDD has been submitted to DoE for verification.					
Documentation Provided as Evidence by Project Participant:					
Revised PDD version 05, dated 20/06/2014					
Information Verified by Lead Assessor:					
Revised PDD version 05, dated 20/06/2014 Is checked. It is noted that PP has not updated the date and version of revised PDD.					
Reasoning for not Acceptance or Acceptance and Close Out:					
Template used for revised PDD and MR Is no valid. Please clarify why the revised PDD and MR Is not submitted using latest applicable template.					
Acceptance and Close out by Lead Assessor: Open			Date: 18/07/2014		
Project Participant Response:			Date: 29/07/2014		
Revised PDD and MR has now been submitted using latest applicable template					
Documentation Provided as Evidence by Project Participant:					
Revised PDD version 06, dated 29/07/2014					
Monitoring Report version 05, dated 29/07/2014					
Information Verified by Lead Assessor:					
Revised PDD version 06,dated 29/07/2014 and revised MR version 05,dated 29/07/2014 is checked					
Reasoning for not Acceptance or Acceptance and Close Out:					
PP has submitted the revised PDD and MR using latest available template, all the information's provided in the relevant sections of MR and PDD are found to be correct hence accepted.					
CAR #5 is closed					
Acceptance and Close out by Lead Assessor:			Date: 12/08/2014		

CAR #5 re-opened	
Lead Assessor Comment:	Date: 26/08/2014
<ol style="list-style-type: none"> 1. All the corrections are not mentioned in the MR and PDD. 2. The ER calculation sheet does not specify the period considered for year 2012 and 2013. Also the number of days for current monitoring period is not mentioned transparently. 3. Start date of current monitoring period in section E.1 is not consistent with the same mentioned in other section of MR. 	
Project Participant Response:	Date: 12/09/2014
<ol style="list-style-type: none"> 1. All the corrections now mentioned in the MR and PDD. 2. The ER calculation sheet now has been specifies the period considered for year 2012 and 2013. Also the number of days for current monitoring period is mentioned transparently 3. .Start date of current monitoring period in section E.1 now consistent with the same mentioned in other section of MR. 	
Documentation Provided as Evidence by Project Participant:	
MR version 06, dated 10/09/2014	
Revised PDD version 07, dated 10/09/2014	
Information Verified by Lead Assessor:	
Revised MR version 06, dated 10/09/2014 and the revised PDD version 07, dated 10/09/2014 is checked	
CER sheet version 04, dated 12/09/2014	
The PP had submitted the CER sheet version 04 in their response but did not list the same in above row.	
Reasoning for not Acceptance or Acceptance and Close Out:	
The PP has mentioned all the corrections in the revised MR. Closed	
The specific period for the year 2012 and 2013 is mentioned in the ER calculation sheet Also the number of days for current monitoring period is mentioned transparently.	
Start date of current monitoring period in section E.1 is made consistent with the same mentioned in other section of MR.	
Acceptance and Close out by Lead Assessor:	Date: 19/09/2014
Closed	

Date:	14/10/2014	Raised by:	Assessment team		
Type:	CAR	Number:	06	Reference:	AU4
Lead Assessor Comment:				Date: 14/10/2014	
<p>ER spreadsheet tab "Generation detail_DBPL":</p> <ul style="list-style-type: none"> i. Please clarify the accuracy of equation at cell I28 that does not account/ add up the value for December 2012 data. ii. Heading at column "O", is not representative of the actual algorithm used, since equation applied follow the minimum value among three columns i.e. Column "J", "M" & "P". Please clarify. <p>ER spreadsheet "EGy for December 2012": Row 5, specified "Value of EGBL, y(from Monthly JMR)", whereas the mentioned value against the heading has not been sourced from the monthly JMR. Please clarify.</p> <p>MR: Please clarify which energy meters have got delayed calibration.</p>					
Project Participant Response:				Date: 21/10/2014	
<p>ER spreadsheet is updated.</p> <p>MR: GSS Tinwari S/s (RJB 320 & RJB 319) meters calibration was delayed & same has been updated in MR.</p>					
Documentation Provided as Evidence by Project Participant:					
CER sheet version 05, dated 21/10/2014					
Revised MR version 07, dated 21/010/2014					
Information Verified by Lead Assessor:					
<p>Following documents are checked:</p> <p>Revised MR version 07, dated 21/10/2014</p> <p>CER sheet version 05, dated 21/10/2014</p>					
Reasoning for not Acceptance or Acceptance and Close Out:				Date: 24/10/2014	
<p>PP has appropriately addressed all the comments in the revised ER sheet. Closed</p> <p>Calibration of the meters installed at Tnwari substation got delayed during current monitoring period, this information is updated in the revised MR. Closed</p>					
Acceptance and Close out by Lead Assessor: closed				Date: 24/10/2014	

Date:	26/11/2014	Raised by:	Assessment team
Type:	CAR	Number:	07
		Reference:	AU4
Lead Assessor Comment:		Date: 26/11/2014	
<p>VVM to VVS PDD:</p> <p>All the information's from section A.4.3 of VVM PDD is not transferred in VVS PDD.</p> <p>Section B.7.1: Information about the parameters $EG_{JMR, export}$ and $EG_{JMR, import}$ as provided in VVS PDD is not consistent with VVM PDD.</p> <p>MR:</p> <p>As the current monitoring period does not cover the whole year of 2012 and 2013. Please clarify why the specific period in the table "Year wise shut down details" is not mentioned.</p> <p>ER calculation sheet:</p> <p>Please clarify why the latest version of VVS is not referred (ref: Cell K3, tab "Generation Detail_DBPL")</p>			
Project Participant Response:		Date: 03/12/2014	
<p>VVM to VVS PDD:</p> <p>All the information's from section A.4.3 of VVM PDD has now transferred in section B.6.4 of VVS PDD.</p> <p>Section B.7.1: Information about the parameters $EG_{JMR, export}$ and $EG_{JMR, import}$ as provided in VVS PDD is now made consistent with VVM PDD.</p> <p>MR:</p> <p>The period for downtime has now been updated in the table "Year wise shut down details" as per the monitoring period.</p> <p>ER calculation sheet:</p> <p>The latest version of VVS has now been updated in cell k3 of ER sheet.</p>			
Documentation Provided as Evidence by Project Participant:			
<p>Revised ER sheet, version 06</p> <p>Revised MR, version 08, dated 03/12/2014</p> <p>Revised VVM to VVS PDD</p>			
Information Verified by Lead Assessor:			
<p>The following documents are checked :</p> <p>Revised ER sheet, version 06, dated 03/12/2014</p> <p>Revised MR, version 08, dated 03/12/2014</p> <p>Revised PDD version 08, dated 03/12/2014 was submitted by PP but did not mention in the above section.</p>			
Reasoning for not Acceptance or Acceptance and Close Out:		Date: 05/12/2014	
<p>PP has satisfactorily addresses the comments on monitoring report and ER calculation sheet. Closed</p> <p>Please submit the registered PDD (VVM to VVS). Also last page of revised PDD and registered PDD (VVM to VVS) showing error. Open</p>			
Acceptance and Close out by Lead Assessor: Open		Date: 05/12/2014	
Project Participant Response:		Date: 05/12/2014	
The PDD has been updated			
Documentation Provided as Evidence by Project Participant:			
<p>Revised PDD VVS clean mode 05.12.2014</p> <p>Revised PDD VVS track change 05.12.2014</p> <p>VVM to VVS conversion PDD</p>			
Information Verified by Lead Assessor:			
<p>Following documents are checked:</p> <p>Revised PDD VVS clean mode version 09, dated 05/12/2014</p> <p>Revised PDD VVS track change version 09, dated 05/12/2014</p> <p>Registered PDD (VVM to VVS conversion), Version04, dated 18/11/2011</p>			

Reasoning for not Acceptance or Acceptance and Close Out:	Date: 06/12/2014
The PP has submitted the revised PDD and registered PDD (VVM to VVS) making the necessary changes. The documents are found to correct.	
Acceptance and Close out by Lead Assessor: closed	Date: 06/12/2014
CAR #7 re-opened	
Lead Assessor Comment:	Date: 12/12/2014
As per section D.2 of the MR, it is noted that the calibration of the meters installed at 220 KV Ketu Kalan GSS of Suzlon (Location 57and 58) is delayed .In view of this information please clarify why the delay in calibration for the meters installed at 220 KV Ketu Kalan GSS is not addressed as per the paragraph 283(a) of VVS version 07.0.	
Project Participant Response:	Date: 12/12/2014
We would like to clarify that the meters installed at 220 KV Ketu Kalan GSS of Suzlon(Location 57and 58) is not directly used for calculation of $EG_{BL,y}$, however the delay in calibration of these meters are also addressed as conservative approach in line with paragraph 283(a) of VVS version 07.0.	
Documentation Provided as Evidence by Project Participant:	
Revised MR version 09,dated 12/12/2014 Revised ER sheet, version 07,dated 12/12/2014	
Reasoning for not Acceptance or Acceptance and Close Out:	Date: 12/12/2014
The PP has applied the error factor for the entire monitoring period to address the delay in calibration of the meters installed at 220 KV Ketu Kalan GSS of Suzlon(Location 57and 58).As the data recorded through these meters are not directly used for calculation of net electricity supplied to the grid, hence this approach is found to be conservative. Closed	
Acceptance and Close out by Lead Assessor: closed	Date: 12/12/2014

10. Statement of Competence

Name: Ravi Kant Soni

Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	India	- Technical Reviewer	x

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	x
Technical Area(s): TA 1.2 Energy generation from renewable energy sources	
2. Energy Distribution	
Technical Area(s):	
3. Energy Demand	
Technical Area(s):	
4. Manufacturing	
Technical Area(s):	
5. Chemical Industry	
Technical Area(s):	
6. Construction	
Technical Area(s):	
7. Transport	
Technical Area(s):	
8. Mining/Mineral Production	
Technical Area(s):	
9. Metal Production	
Technical Area(s):	
10. Fugitive Emissions from Fuels (solid, oil and gas)	
Technical Area(s):	
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	
Technical Area(s):	
12. Solvent Use	
Technical Area(s):	
13. Waste Handling and Disposal	
Technical Area(s):	
14. Afforestation and Reforestation	
Technical Area(s):	
15. Agriculture	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 12/10/2012

Statement of Competence

Name: Ramkrishna
Patil

Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	India	- Technical Reviewer	x

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	x
Technical Area(s): TA 1.2 Energy generation from renewable energy sources	
2. Energy Distribution	x
Technical Area(s): TA 2.1 Electricity distribution TA 2.2 Heat distribution	
3. Energy Demand	x
Technical Area(s): TA 3.1 Energy Demand	
4. Manufacturing	
Technical Area(s):	
5. Chemical Industry	
Technical Area(s):	
6. Construction	
Technical Area(s):	
7. Transport	
Technical Area(s):	
8. Mining/Mineral Production	
Technical Area(s):	
9. Metal Production	
Technical Area(s):	
10. Fugitive Emissions from Fuels (solid, oil and gas)	
Technical Area(s):	
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	
Technical Area(s):	
12. Solvent Use	
Technical Area(s):	
13. Waste Handling and Disposal	
Technical Area(s):	
14. Afforestation and Reforestation	
Technical Area(s):	
15. Agriculture	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 02/07/2012

11. Photographic Evidence

Unique reference number: RJB 323	Parameter: EG_{BLV}
Name of equipment: Main Meter (SEL 57)	Date: 12/03/2014



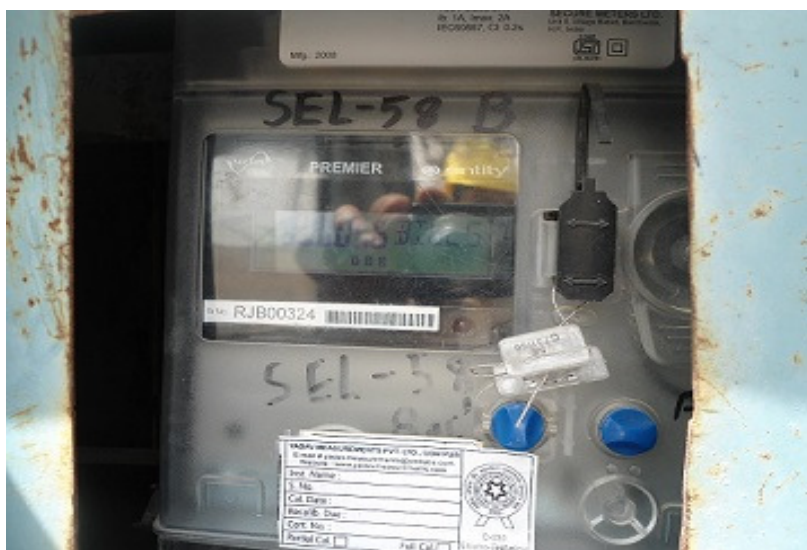
Unique reference number: RJB 322	Parameter: EG_{BLV}
Name of equipment: Check Meter (SEL 57)	Date: 12/03/2014



Unique reference number: RJB 315	Parameter: EG _{BL,y}
Name of equipment: Main Meter (SEL 58)	Date: 12/03/2014



Unique reference number: RJB 324	Parameter: EG _{BL,y}
Name of equipment: Check Meter (SEL 58)	Date: 12/03/2014



Note: The assessment has checked the details of 220 KV substation meters during site visit and calibration certificates and found to be consistent. Photographs of substation are not allowed, hence photos for RJB 320 and RJB 319 were not captured. However the assessment team has physically inspected the meters during the site visit.