



VERIFICATION AND CERTIFICATION REPORT

- 1ST PERIODIC –

MODERN ROAD MAKERS PVT. LTD.

MRMPL WIND POWER PROJECT

UNFCCC REF. No. : 3839

Monitoring Period: 2010-11-27 to 2012-04-30
(incl. both days)

Report No: 8109094873–12/363

Date: 2012-11-26

TÜV NORD CERT GmbH
JI/CDM Certification Program
Langemarckstraße, 20
45141 Essen, Germany
Phone: +49-201-825-3335
Fax: +49-201-825-2139
www.tuev-nord.de
www.global-warming.de



Verification Report:	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
	8109094873-12/363	0	2012-11-26	2012-11-26
Project:	Title:	Registration date:	UNFCCC-No.:	
	MRMPL Wind Power Project	2010-11-27	3839	
	Crediting period:	From:	To:	
	<input type="checkbox"/> Renewable (7y) <input checked="" type="checkbox"/> Fixed (10y)	2010-11-27	2012-04-30	
	Project Scale:			
	<input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale			
Project Participant(s):	Non Annex 1 country:	Annex 1 country:		
	India	NA		
	PP from non Annex 1 country:	PP from Annex 1 country:		
	Modern Road Makers Pvt. Ltd.	NA		
Applied methodology/ies:	Title:	No.:	Scope(s) / TA(s)	
	"Consolidated baseline methodology for grid-connected electricity generation from renewable sources",	ACM0002 ver.10	1/1.2	
Monitoring period and monitoring report	Monitoring period (MP):	Monitoring Report:		
	From:	To:	No. of days:	Draft version:
	2010-11-27	2012-04-30	521	2012-06-07
				2012-08-01
Verification team / Technical Review and Final Approval:	Verification Team:	Technical review:	Final approval:	
	Mr. Sukanta Das (TL/TE) Mr. Sandip Saha (TM/TE)	Ingo Klein (TR) Tashin Choudhury (OR)	Ingo Klein	
Key dates of verification:	Publication of MR :	DVerR issued:	On-site (from):	On-site (to):
	2012-07-06	2012-07-30	2012-07-28	2012-07-29
Summary of Verification opinion	<p>Modern Road Makers Pvt. Ltd. has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "MRMPL Wind Power Project", with regard to the relevant requirements for CDM project activities.</p> <p>As a result of this verification, the verifier confirms that:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> all operations of the project are implemented and installed as planned and described in the validated project design document, <input checked="" type="checkbox"/> the monitoring plan is in accordance with the applied approved CDM methodology, <input checked="" type="checkbox"/> the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately, <input checked="" type="checkbox"/> the monitoring system is in place and functional. The project has generated GHG emission reductions, and <input checked="" type="checkbox"/> the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. <p>TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as listed below (verified amount).</p>			
Emission reductions: [t CO_{2e}]	Verified amount	As per draft MR:	As per PDD:	
	35,439	35,443	46,801	
Document	Filename:	No. of pages:		



information:	2012-11-26_MRMPL_FVR_12-363_Final_clean.doc	69
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Abbreviations:

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon dioxide
CO_{2eq}	Carbon dioxide equivalent
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse gas(es)
JVVNL	Jodhpur Vidyut Vitran Nigam Limited
MP	Monitoring Plan
MRMPL	Modern Road Makers Pvt. Ltd.
NEWNE	Northern, Eastern, Western, North-Eastern
MR	Monitoring Report
PA	Project Activity
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
QA/QC	Quality Assurance / Quality Control
SEL	Suzlon Energy Limited
UNFCCC	United Nations Framework Convention on Climate Change
WTG	Wind Turbine Generators
XLS	Emission Reduction Calculation Spread Sheet

<i>Table of Contents</i>	<i>Page</i>
1.1. Objective	6
1.2. Scope	6
2.1. Technical Project Description	8
2.2. Project Location	9
2.3. Project Verification History	10
3.1. Verification Steps	11
3.2. Contract review	11
3.3. Appointment of team members and technical reviewers	11
3.4. Publication of the Monitoring Report	12
3.5. Verification Planning	13
3.6. Desk review	15
3.7. On-site assessment	15
3.8. Draft verification reporting	17
3.9. Resolution of CARs, CLs and FARs	17
3.10. Final reporting	17
3.11. Technical review	18
3.12. Final approval	18
5.1. Involved Parties and Project Participants	24
5.2. Implementation of the project	24
5.3. Project history	25
5.4. Post registration changes	25
5.5. Compliance with the monitoring plan	25
5.6. Compliance with the monitoring methodology	26
5.7. Monitoring parameters	26
5.8. Monitoring report	27
5.9. ER Calculation	28
5.10. Quality Management	28
5.11. Comparison with ex-ante estimated emission reductions	29
5.12. Overall Aspects of the Verification	29
5.13. Hints for next periodic Verification	29

1. INTRODUCTION

Modern Road Makers Pvt. Ltd. has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the 1st periodic verification of the project

“MRMPL Wind Power Project”

with regard to the relevant requirements for CDM project activities. The verifiers have reviewed the implementation of the monitoring plan (MP) in the registered CDM project.

GHG data for the monitoring period was verified in detailed manner applying the set of requirements, audit practices and principles as required under the Validation and Verification Standard ^{/VVS/} of the UNFCCC.

This report summarizes the findings and conclusions of this 1st periodic verification of the above mentioned UNFCCC registered project activity.

1.1. Objective

The objective of the verification is the review and ex-post determination by an independent entity of the GHG emission reductions. It includes the verification of the:

- implementation and operation of the project activity as given in the PDD,
- compliance with applied approved methodology and the provisions of the monitoring plan,
- data given in the monitoring report by checking the monitoring records, the emissions reduction calculation and supporting evidence,
- accuracy of the monitoring equipment,
- quality of evidence,
- significance of reporting risks and risks of material misstatements.

1.2. Scope

The verification of this registered project is based on the validated project design document ^{/PDD/}, the monitoring report ^{/MR/}, emission reduction calculation spreadsheet ^{/XLS/}, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The verification is carried out on the basis of the following requirements, applicable for this project activity:

- Article 12 of the Kyoto Protocol ^{/KP/},



-
- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1 ^{/MA/}, and subsequent decisions made by the Executive Board and COP/MOP,
 - other relevant rules, including the host country legislation,
 - CDM Validation and Verification Standard ^{/VVS/},
 - monitoring plan as given in the registered PDD ^{/PDD/},
 - Approved CDM Methodology.

2. GHG PROJECT DESCRIPTION

2.1. Technical Project Description

The project activity involves installation and operation of a 20 MW (16 nos of WTG × 1.25 MW capacity of each) wind power project located at villages Mudari, Ganesh ki Dhani, Dhava and Dedha in the district of Jaisalmer, Rajasthan in India. The electricity generated is being sold to the NEWNE grid (to which the project is connected to) for which PP has entered into a Power Purchase Agreement (PPA) with Jodhpur Vidyut Vitran Nigam Limited. The project thereby reduces GHG emissions by replacing electricity of the NEWNE Grid of India which predominantly uses fossil fuels. The project activity includes Suzlon windmills (1250 kW, S-66) with internal electrical lines connecting the project activity, metering system and NEWNE grid.

The main purpose of the project activity is to generate electricity using wind power, a renewable energy source, to meet the ever increasing demand for energy in the region. The wind power technology is used to convert the energy contained in masses of moving air into rotating shaft power. PP has signed the Operation and maintenance (O&M) contract with Suzlon Energy Limited.

Out of 16 WTGs, 4 WTGs under the project activity were commissioned^{/CC/} on 28/09/2008 and remaining 12 WTGs were commissioned^{/CC/} on 12/01/2009. The commissioning dates^{/CC/} for all the WTGs included in the project activity is given in the section B.1 of monitoring report^{/MR/}. Commissioning dates stated under section B.1 of MR were checked by the assessment team with the respective commissioning certificate^{/CC/} and found appropriate and consistent.

Wind energy being a carbon neutral fuel, the project reduces CO₂ emissions to the extent of equivalent net electricity generated by mostly fossil fuel based power plants connected to the NEWNE grid. The expected annual emission reduction for the project activity was 32,788 tCO_{2e} at the time of registration. However, in this monitoring period (2010-11-27 to 2012-04-30), the project activity exported 39,124¹ MWh of net electricity to the grid which leads to emission reduction of 35,439 tCO_{2e}.

The key parameters of the project are given in Table 2-1:

Table 2-1: Technical data of the project activity

Parameter	Unit	Value
Rotor		
Diameter	m	66

¹ considering para 4(a) of Annex 60 of EB 52

Parameter	Unit	Value
No. of Rotor Blade		3
Rotor Blade Material		Epoxy bonded fibre glass
Swept Area	m ²	3421
Hub Height	m	74.5
OPERATIONAL DATA		
Cut in wind speed	m/s	3.0
Rated wind speed	m/s	14
Cut off wind speed	m/s	22
GENERATOR		
Rotation speed	RPM	1500
Rated output	kW	1250
Rated voltage	V	690 V – AC (phase to phase)
Frequency	Hz	50

2.2. Project Location

The details of the project location are given in Table 2-2:

Table 2-2: Project Location

No.	Project Location
Host Country	India
Region:	Jaisalmer, Rajasthan
Project location address:	Project is located at Mudari, Ganesh ki Dhani, Dhava and Dedha villages in the district of Jaisalmer.
Latitude:	The co-ordinates of individual WTG are provided below.
Longitude:	The co-ordinates of individual WTG are provided below.

The latitude and longitude of the WTGs are as follows:

WTG No.	Latitude (N)	Longitude (E)
R060	N 26° 48' 45.8"	E 70° 44' 16.3"
R061	N 26° 48' 36.8"	E 70° 44' 26.1"
R078	N 26° 49' 15.4"	E 70° 51' 35.4"
R007	N 26° 48' 58.4"	E 70° 51' 37.2"
R008	N 26° 48' 41.7"	E 70° 51' 39.4"
R063	N 26° 48' 54.6"	E 70° 43' 33.2"

WTG No.	Latitude (N)	Longitude (E)
R064	N 26° 48' 45.1"	E 70° 43' 43.5"
R069	N 26° 48' 36.8"	E 70° 43' 23.5"
R070	N 26° 48' 27.3"	E 70° 43' 33.8"
R071	N 26° 48' 17.7"	E 70° 43' 44.2"
R072	N 26° 48' 08.2"	E 70° 43' 54.5"
R073	N 26° 47' 58.6"	E 70° 44' 04.9"
R074	N 26° 47' 49.1"	E 70° 44' 15.2"
R016	N 26° 49' 21.4"	E 70° 49' 30.9"
R062	N 26° 48' 25.3"	E 70° 44' 37.1"
R067	N 26° 48' 00.3"	E 70° 44' 34.7"

2.3. Project Verification History

Essential events since the registration of the project are presented in the following Table 2-3.

Table 2-3: Status of previous Monitoring Periods

#	Item	Time	Status
1	1 st Monitoring period	2010-11-27 to 2012-04-30	Ongoing

An overview of all Post Registration Changes is given in the following table.

Table 2-3: Overview Post Registration Changes

#	Applicable from – to / as of	MP	Type of post registration change ¹⁾	Description	Status ²⁾ / Date
1	NA	NA	NA	NA	NA

- ¹⁾ TDfrMP : Temporary deviation from registered monitoring plan
 TDfMM : Temporary deviation from the monitoring methodology
 CrPDD : Corrections to the registered PDD
 PCfrMP : Permanent changes from registered Monitoring Plan
 PCfMM : Permanent changes from Monitoring Methodology
 CoPD : Changes to the project design of a registered project activity
- ²⁾ Approval (by EB) or Acceptance (by DOE)

3. METHODOLOGY AND VERIFICATION SEQUENCE

3.1. Verification Steps

The verification consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the monitoring report
- A desk review of the Monitoring Report^{/MR/} submitted by the client and additional supporting documents with the use of customised verification protocol^{/CPM/} according to the Validation and Verification Standard^{/VVS/},
- Verification planning,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft verification reporting
- Resolution of corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the verification.

3.2. Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the verification can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

3.3. Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consisting of one team leader and 1 additional team members, was appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the Table 3-1 below.

Table 3-1: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Verification competence ⁵⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sukanta Das	TUV India Pvt. Ltd.	TL/TE _{A)}	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sandip Saha	TUV India Pvt. Ltd.	TM/TE _{A)}	A	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Tashin Choudhury	TUV Nord, UK	OR ^{B)}	ETE	<input type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Ingo Klein	TN Cert, Essen	TR ^{B)} /FA ^{B)}	SA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-

1) TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

2) GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

3) GHG auditor status (at least Assessor)

4) As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

5) In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

In order to qualify further personnel the project team was accompanied by observers and/or trainees as indicated in the table above. They are usually not considered as team members.

Statements of competence for the above mentioned team members are enclosed in annex 2 of this report.

3.4. Publication of the Monitoring Report

In accordance with the CDM M&P (§ 62) the draft monitoring report, as received from the project participants, has been made publicly available on the dedicated UNFCCC

CDM website prior to the verification activity commenced. Comments received are taken into account in the course of the verification, if applicable.

3.5. Verification Planning

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Risk analysis and detailed audit testing planning

For the identification of potential reporting risks and the necessary detailed audit testing procedures for residual risk areas table A-1 is used. The structure and content of this table is given in Table 3-2 below.

Table 3-2: Table A-1; Identification of verification risk areas

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing				
Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
<i>The following potential risks were identified and divided and structured according to the possible areas of occurrence.</i>	<i>The potential risks of raw data generation have been identified in the course of the monitoring system implementation. The following measures were taken in order to minimize the corresponding risks.</i> <i>The following measures are implemented:</i>	<i>Despite the measures implemented in order to reduce the occurrence probability the following residual risks remain and have to be addressed in the course of every verification.</i>	<i>The additional verification testing performed is described. Testing may include:</i> <ul style="list-style-type: none"> - Sample cross checking of manual transfers of data - Recalculation - Spreadsheet 'walk throughs' to check links and equations - Inspection of calibration and maintenance records for key equipment - Check sampling analysis results <i>Discussions with process engineers who have detailed knowledge of process</i>	<i>Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.</i>

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
			<i>uncertainty/error bands.</i>	

The completed table A-1 is enclosed in Annex 1 (table A-1) to this report.

Project specific periodic verification checklist

In order to ensure transparency and consideration of all relevant assessment criteria, a project specific verification protocol has been developed. The protocol shows, in a transparent manner, criteria and requirements, means and results of the verification. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet for verification
- It ensures a transparent verification process where the verifying DOE documents how a particular requirement has been proved and the result of the verification.

The basic structure of this project specific verification protocol for the periodic verification is described in Table A-2.

Table 3-3: Table A-2; Structure of the project specific periodic verification checklist

Table A-2: Periodic verification checklist

Checklist Item	Reference	Verification Team Comments	Draft Conclusion	Final Conclusion
<i>The checklist items in Table A-2 are linked to the various requirements the monitoring of the project should meet. The checklist is organised in various sections as per the requirements of the topic and the individual project activity. It further includes guidance for the verification team.</i>	<i>Gives reference to the information source on which the assessment is based on.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the verification team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft verification stage.</i>	<i>In case of a corrective action or a clarification the final assessment at the final verification stage is given.</i>

The periodic verification checklist (verification protocol) is the backbone of the complete verification starting from the desk review until final assessment. Detailed assessments and findings are discussed within this checklist and not necessarily repeated in the main text of this report.

The completed verification protocol is enclosed in Annex 1 (table A-2) to this report.

3.6. Desk review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the last revision of the PDD including the monitoring plan^{/PDD/},
- the last revision of the validation report^{/VAL/},
- documentation of previous verifications^{/VER/}
- the monitoring report, including the claimed emission reductions for the project^{/MR/},
- the emission reduction calculation spreadsheet^{/XLS/}.

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed.

3.7. On-site assessment

As most essential part of the verification exercise it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission reductions. The main tasks covered during the site visit include, but are not limited to:

- The on-site assessment included an investigation of whether all relevant equipment is installed and works as anticipated.
- The operating staff was interviewed and observed in order to check the risks of inappropriate operation and data collection procedures.
- Information processes for generating, aggregating and reporting the selected monitored parameters were reviewed.
- The duly calibration of all metering equipment was checked.
- The monitoring processes, routines and documentations were audited to check their proper application.
- The monitoring data were checked completely.
- The data aggregation trails were checked via spot sample down to the level of the meter recordings.

Before and during the on-site visit the verification team performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Representatives of PP including the operational staff of the plant were interviewed. The main topics of the interviews are summarised in Table 3-4.

Table 3-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
1. Projects & Operations Personnel 2. Consultant	<ul style="list-style-type: none"> - General aspects of the project - Technical equipment and operation - Changes since validation / previous verification - Monitoring and measurement equipment - Remaining issues from validation/ previous verification - Calibration procedures - Quality management system - Involved personnel and responsibilities - Training and practice of the operational personnel - Implementation of the monitoring plan - Monitoring data management - Data uncertainty and residual risks - GHG emission reduction calculation - Procedural aspects of the verification - Maintenance - Environmental aspects

The list of interviewees is included in chapter 7.4.

3.8. Draft verification reporting

On the basis of the desk review, the on-site visit, follow-up interviews and further background investigation the verification protocol is completed. This protocol together with a general project and procedural description of the verification and a detailed list of the verification findings form the draft verification report. This report is sent to the client for resolution of raised CARs, CLs and FARs.

3.9. Resolution of CARs, CLs and FARs

Nonconformities raised during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

Corrective Action Requests (CARs) are issued, if:

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

The verification team uses the term Clarification Request (CL), which is issued if:

- information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.
- Forward Action Requests (FAR) indicate essential risks for further periodic verifications. Forward Action Requests are issued, if:
- the monitoring and reporting require attention and / or adjustment for the next verification period.

For a detailed list of all CARs, CLs and FARs raised in the course of the verification pl. refer to chapter 4.

3.10. Final reporting

Upon successful closure of all raised CARs and CLs the final verification report including a positive verification opinion can be issued. In case not all essential issues could finally be resolved, a final report including a negative verification opinion is issued.

The final report summarizes the final assessments w.r.t. all applicable criteria.

3.11. Technical review

Before submission of the final verification report a technical review of the whole verification procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.12. Final approval

After successful technical review an overall (esp. procedural) assessment of the complete verification will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the request for issuance can be started.

4. VERIFICATION FINDINGS

In the following paragraphs the findings from the desk review of the monitoring report^{/MR/}, the calculation spreadsheet^{/XLS/}, PDD^{/PDD/}, the Validation Report^{/VAL/} and other supporting documents, as well as from the on-site assessment and the interviews are summarised.

The summary of CAR, CL and FAR issued are shown in Table 4-1:

Table 4-1: Summary of CAR, CL and FAR

Verification topic	No. of CAR	No. of CL	No. of FAR
A – Description of project activity	01	0	0
B – Implementation of project activity	01	0	0
C – Description of monitoring system	01	0	0
D – Data and parameters	01	0	0
E - Calculation of Emission Reductions	0	01	0
SUM	04	01	0

The following tables include all raised CARs, CLs and FARs and the assessments of the same by the verification team. For an in depth evaluation of all verification items it should be referred to the verification protocols (see Annex).

General description of the project activity	A1																		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR																
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	During desk review, verification team found following inconsistencies in the webhosted MR: 1. Description of duration of the monitoring period is not in line with the Annex 20 of EB 66. 2. Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) and total GHG emission reductions by sinks achieved in this monitoring period are not mentioned in the section A.1 of the webhosted MR. 3. Location of the project mentioned in section A.2 of the webhosted MR is not in line with the Annex 20 of EB 66. 4. Reference of applied methodology mentioned in section A.4 of the webhosted MR is not in line with the Annex 20 of EB 66. Appropriate corrections are sought in this context.																		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The following corrections are made in the MR 1. Description of duration of the monitoring period is now corrected as per Annex 20 of EB 66. 2. . The relevant dates for the project activity are mentioned below: <table><tr><th>Milestone Achieved</th><th>Date</th></tr><tr><td>Power Purchase Agreement with Jodhpur Vidyut Vitran Nigam Limited and Suzlon Energy Limited</td><td>15/08/2008</td></tr><tr><td>WTG Supply Agreement</td><td>19/08/2008</td></tr><tr><td>Commissioning date (5 MW and 15 MW)</td><td>28/09/2008 and 12/01/2009 respectively</td></tr><tr><td>Maintenance (with Parts and consumable) agreement for the 5 MW project with Suzlon Infrastructure Services Limited</td><td>21/05/2010</td></tr><tr><td>Operation and Maintenance Agreement (Service Only) for the 5 MW project with Suzlon Infrastructure Services Limited</td><td>21/05/2010</td></tr><tr><td>Maintenance (with Parts and consumable) agreement for the 15 MW project with Suzlon Infrastructure Services Limited</td><td>21/05/2010</td></tr><tr><td>Operation and Maintenance Agreement (Service Only) for the 15 MW project with Suzlon Infrastructure Services Limited</td><td>21/05/2010</td></tr></table> The same revision has been incorporated in the revised MR. Further, total GHG emission reductions by sinks achieved in this monitoring period are now included in section A.1 of the revised			Milestone Achieved	Date	Power Purchase Agreement with Jodhpur Vidyut Vitran Nigam Limited and Suzlon Energy Limited	15/08/2008	WTG Supply Agreement	19/08/2008	Commissioning date (5 MW and 15 MW)	28/09/2008 and 12/01/2009 respectively	Maintenance (with Parts and consumable) agreement for the 5 MW project with Suzlon Infrastructure Services Limited	21/05/2010	Operation and Maintenance Agreement (Service Only) for the 5 MW project with Suzlon Infrastructure Services Limited	21/05/2010	Maintenance (with Parts and consumable) agreement for the 15 MW project with Suzlon Infrastructure Services Limited	21/05/2010	Operation and Maintenance Agreement (Service Only) for the 15 MW project with Suzlon Infrastructure Services Limited	21/05/2010
Milestone Achieved	Date																		
Power Purchase Agreement with Jodhpur Vidyut Vitran Nigam Limited and Suzlon Energy Limited	15/08/2008																		
WTG Supply Agreement	19/08/2008																		
Commissioning date (5 MW and 15 MW)	28/09/2008 and 12/01/2009 respectively																		
Maintenance (with Parts and consumable) agreement for the 5 MW project with Suzlon Infrastructure Services Limited	21/05/2010																		
Operation and Maintenance Agreement (Service Only) for the 5 MW project with Suzlon Infrastructure Services Limited	21/05/2010																		
Maintenance (with Parts and consumable) agreement for the 15 MW project with Suzlon Infrastructure Services Limited	21/05/2010																		
Operation and Maintenance Agreement (Service Only) for the 15 MW project with Suzlon Infrastructure Services Limited	21/05/2010																		

	<p>MR.</p> <p>3. Location of the project mentioned in section A.2 is now updated as per the Annex 20 of EB 66.</p> <p>4. Reference of applied methodology mentioned is now included in the section A.4 of the revised MR.</p>
<p>DOE Assessment #1</p> <p><i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>1. Verification team assessed the revised MR and found that description of duration of the monitoring period is now revised in line with Annex 20 of EB 66.</p> <p>2. Relevant dates e.g. agreement with Suzlon Infrastructure Services Limited for Operation and Maintenance for 5 MW and 15 MW plants and Power Purchase Agreement with JVVNL and SEL for the project activity have been incorporate in the revised MR. Further, during site visit, verification team confirmed that the project activity has been in continuous operation since the date of commissioning except for shut down periods for maintenance purposes. Further, assessment team has checked the above mentioned documents and found that PP has appropriately incorporated the respective dates in the revised MR.</p> <p>3. Location of the project has been revised in section A.2 as per the Annex 20 of EB 66.</p> <p>4. References of applied methodology have been incorporated in the revised MR.</p> <p>CAR is closed.</p>
<p>Conclusion</p> <p><i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input type="checkbox"/> Additional action should be taken (finding remains open)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>

Implementation of the project activity	B1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p>Description of finding</p> <p><i>Describe the finding in unambiguous style; address the context (e.g. section)</i></p>	<p>During the onsite visit and discussions with the PP, it was found that there were no such significant downtime occurred for this monitoring period except for the scheduled maintenance and operational breakdowns. Further, section B.1 of the MR does not mention the breakdown details occurred during the monitoring period. Appropriate correction is sought.</p>		
<p>Corrective Action #1</p> <p><i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<p>The details of the downtime for scheduled maintenance and operational breakdowns during the monitoring period are now included in the updated MR.</p>		

Implementation of the project activity	B1
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The shut down details have been incorporated in the revised MR version 2 as Appendix 1. The break down occurred during the monitoring period have been checked by the validation team and found correct.</p> <p>Thus the CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Description of the monitoring system	C1
Classification	<input type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Information flows of the project activity and diagram of the monitoring system are not mentioned in section C of the webhosted monitoring report in line with Para 190 of EB 65 Annex 5 and section C of EB 66 Annex 20. Appropriate corrections are sought.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Information flow for the project activity and diagram of the monitoring system are now included in the revised monitoring report
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The information flow of the project activity and the diagram of the monitoring system have been incorporated in the revised MR version 2 in line with Para 190 of EB 65 Annex 5 and section C of EB 66 Annex 20. Assessment team checked the revised monitoring report version 02 and found that appropriate corrections have been taken. Hence, CAR is closed
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Data and parameters monitored	D1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	During assessment, verification team found that calibration of the energy meters was scheduled on 10/03/2012 but actual calibration was delayed. Appropriate correction is sought as per Para 4 (a) of EB 52 Annex 60.

Data and parameters monitored	D1
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>There has been a delay in calibration of the meter (Meter Calibration Due Date: 10/03/2012, Meter Calibrated on: 14/03/2012). Thus, a correction factor has been applied conservatively to the Electricity Exported and the Electricity Imported for the month March 2012 as per the "Guidelines For Assessing Compliance With The Calibration Frequency Requirements", EB 52, Annex 60. The values for the Electricity Exported and the Electricity Imported for March 2012 have been corrected by applying the maximum permissible error of the meter conservatively. The correction factor applied is the accuracy of the Meter i.e. 0.2%.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Verification team assessed the revised emission reduction calculation and revised monitoring report and found that PP has appropriately applied the delay in calibration in line with para 4(a) EB 52 annex 60. CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed </p>

Emission Reductions Calculation	E1
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Duration of the monitoring period of the project activity is from 27/11/2010 to 30/04/2012. Further, emission reduction has been calculated from 01/12/2010 to 31/04/2012. PP is requested to clarify the same.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The monitoring period begins from 27/11/2010. However, since the crediting period falls in between the billing cycles, the emission reductions are claimed conservatively only for the period that falls entirely within the billing cycle. Thus, emission reductions are claimed from the start date of the next billing cycle i.e. 1/11/2010 and the electricity generation from 27/11/2010 to 30/11/2010 has been conservatively taken as zero.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Assessment team check the credit notes from the state electricity utility and found that PP has taken conservative approach during emission reduction estimation. Hence the clarification is accepted by the assessment team. CL is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed </p>

5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CRs are closed out. For details of the assessments pl. refer to the discussion of the verification findings in chapter 4 and the verification protocol (Annex 1).

5.1. Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity.

Table 5-1: Project Parties and project participants

Characteristic	Party	Project Participant
Non-Annex 1	India	Modern Road Makers Pvt. Ltd.
Annex 1	NA	NA

5.2. Implementation of the project

During the verification, a site visit was carried out. On the basis of this site visit and the reviewed project documentation it can be confirmed that w.r.t. the realized technology, the project equipment, as well as the monitoring and metering equipment, the project has been implemented and operated as described in the registered PDD. The project uses wind energy for electricity generation. There are no changes in the equipment since the registration of the project. Also no change is envisaged. These facts have been verified during site visit. Further, during assessment, verification team found that the information regarding the relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) and total GHG emission reductions by sinks achieved in this monitoring period are not mentioned in the section A.1 of the webhosted MR. Hence, CAR A1 has been raised. Replying to this CAR, PP incorporated the description of the schedule maintenance of the project activity which leads to closure of the CAR.

In this project, WTGs are commissioned in two phases. 4 WTGs under the project activity were commissioned^{/CC/} on 28/09/2008 and remaining 12 WTGs were commissioned^{/CC/} on 12/01/2009. The commissioning dates^{/CC/} for all the WTGs included in the project activity is given in the section B.1 of monitoring report^{/MR/}. Commissioning dates stated under section B.1 of MR were checked by the

assessment team with the respective commissioning certificate^{/CC/} and found appropriate.

All necessary monitoring instruments are installed in this project activity. The measuring devices are well known and state of the art. All required instruments and operating procedures for the same have been implemented in an appropriate manner. For the metering purpose, there are two sealed energy meters installed at the Soda Mada substation. The meter readings are recorded once in every month. As per the registered PDD, the apportioning procedure for the project activity is done based on the main energy meter and the WTG controller readings. State electricity utility (JVVNL) apportions the net electricity supplied to the grid for all the project owners connected to the main meter. The net electricity generated by the project owners is provided by JVVNL in the form of credit note. The values of the electricity exported to the grid by the project activity, electricity imported from the grid by the project activity are directly taken from the credit note for calculation of emission reductions.

Calibration reports^{/CAL/} of the energy meters covering the reported monitoring period were verified for their frequency and traceability to industry standards. Calibration records of all installed meter were checked during the assessment and found satisfactory.

5.3. Project history

During validation, the validating DOE has not raised any FAR. Hence no remaining issues are pending in the validation report. Furthermore as this is the 1st periodic verification, so no issues from former verifications are to be considered..

5.4. Post registration changes

No post registration changes applicable for this monitoring period have been observed during the monitoring period. Therefore, assessment team conclude that same is not applicable to this project activity.

5.5. Compliance with the monitoring plan

The monitoring system and all applied procedures are in compliance with the registered monitoring plan. Same has been satisfactorily checked during the verification site visit, interview with the plant personal and stakeholders and document review.

5.6. Compliance with the monitoring methodology

The monitoring system is in compliance with the applied monitoring methodology 'Consolidated baseline methodology for grid-connected electricity generation from renewable sources' (ACM0002) Version 10. Same has been checked during the verification site visit, interview with the plant personal and found in line with the registered monitoring methodology.

5.7. Monitoring parameters

The project activity includes Suzlon windmills (having capacity 1.25 MW, S-66) with internal electrical lines connecting the project activity with local evacuation facility. Suzlon Energy Limited is responsible for operation and maintenance activities for this project which is also the technology and equipment supplier. According to the ACM0002, ver 10 and registered PDD following are the monitoring parameters need to be monitored:

- Total Electricity Exported to the grid in MWh
- Total Electricity Import from the grid in MWh

Hence, net electricity export is calculated as the difference between total export and electricity import by the project activity. In this project activity, WTGs are connected to two separate feeders which are also fed by WTGs belongs to other project developers. Both the feeders are connected to one set of common energy meter (Main and check energy meter). The meter readings is collected in the form of Joint Meter Reading (JMR) at this metering points in presence of SEL and JVVNL representatives as per Power Purchase Agreement^{/PPA/}.

Both the main and check energy meters are under the custody of the JVVNL and duly tested once in a year. All necessary monitoring instruments are installed at sites and all required instruments operating procedures for the project have been implemented in an appropriate manner. In this project, energy meters with 0.2% accuracy have been installed for monitoring of the electricity export and import. Calibration details of the energy meter covering the monitoring period are listed below which were check by the assessment team:

Meter	Meter No.	Sub-station	Date of Calibration	Calibration Due date	Test Result
Main meter	RJB00316	Soda Mada	14/03/2012	13/03/2013	Satisfactory
			11/03/2011	10/03/2012	Satisfactory
			20/04/2010	19/04/2011	Satisfactory
Check meter	RJB00317	Soda Mada	14/03/2012	13/03/2013	Satisfactory
			11/03/2011	10/03/2012	Satisfactory
			20/04/2010	19/04/2011	Satisfactory

However during the review of calibration certificates, delay in calibration was observed in the month of March-2012. Thus in line with the para 4(a) of EB 52 annex 60; 0.2% of export of electricity has been deducted from the total exported electricity and 0.2% of import has been added with the Net electricity imported, to arrive to a conservative value of net electricity exported to the grid during the period of delay. Further, in the webhosted MR, delay in energy meter calibration has not been mentioned. Thus, CAR D1 has been raised. Subsequently, PP revised the emission reduction sheet and accordingly revised the monitoring report which leads to closure of the CAR.

During the monitoring period (2010-11-27 to 2012-04-30 (including both days)) the project exported 39,124 MWh of net electricity to the NEWNE grid. This was verified by the verification team during the on site visit by checking the credit notes^{/CN/} and electricity sales invoice^{/INV/}. As the Joint meter reading^{/JMR/} is conducted once in every month, thus for the sake of simplicity, the PP is not claiming emission reductions for the period of 2010-11-27 to 2010-11-30 which covers a part of previous billing cycle. The approach is acceptable to the assessment team as it leads to lower emission reduction. Further, the initial ER sheet^{/XLS/} has not mentioned the same consideration and at the same time same justification was not mentioned in the webhosted MR^{/MR/} which leads to CL E1. Replying to this clarification, PP revised the emission reduction^{/XLS/} and monitoring report^{/MR/} appropriately which leads to closure of the CL.

Assessment team checked the value of grid emission factor of NEWNE grid ($EF_{Grid,CM,y}$) (an ex-ante fixed data) that was opted as ex-ante as per registered PDD. For this project, 0.9058 tCO₂/MWh is considered as emission factor for NEWNE grid of India, which is the Combined Margin Emission Factor as per the CEA database (version 4) and same is used for emission reduction calculation.

The credit notes^{/CN/} and invoice records^{/INV/} have been checked by the verification team during on-site visit and the figures made available in the monitoring report have been checked for their authenticity. During the verification all relevant monitoring parameters (as listed in section B.7.1 of registered PDD) have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the monitoring report.

5.8. Monitoring report

A draft monitoring report^{/MR/} was submitted to the verification team by the project participants. The team has made this report publicly available prior to the start of the verification activities. During this tenure no comments were received.

During the assessment, verification team observed that description of duration of the monitoring period and the description of the project location mentioned in section A of the webhosted MR is not in line with the Annex 20 of EB 66. Further, references of

applied methodology mentioned in section A.4 of the webhosted MR is also not in line with the Annex 20 of EB 66. Thus, assessment team raised CAR A1. Replying to this CAR, PP revised the monitoring report^{/MR/} appropriately which leads to closure of the CAR.

5.9. ER Calculation

The calculation of emission reductions is estimated as the difference of baseline emissions and the sum of project emissions and leakage. As there is no usage of fossil fuel during the project execution and the import of electricity are accounted to calculate the net electricity exported to the grid, project emissions from this project is considered as zero. Further, as per applied methodology, leakage is considered as zero. Thus for the project activity the emission reductions equals to the baseline emissions. Further, the baseline emissions are calculated as the product of net electricity supplied to the grid and the ex-ante fixed emission factor of NEWNE grid. Assessment team checked the emission reduction estimation and found that PP has appropriately estimated the baseline emission, project emission and leakage of the project activity.

Further, in this monitoring period (2010-11-27 to 2012-04-30), the project activity exported 39,124 MWh of net electricity to the grid. Moreover, during assessment, verification team found that emission reduction has been calculated from 2010-12-01 to 2012-04-30. Moreover, justification for the same inconsistency is not demonstrated neither in MR nor in ER sheet. . Thus CL E1 has been raised. Subsequently PP clarified that for simplicity of emission reduction calculation, PP has ignored the emission reduction during 2010-11-27 to 2011-11-30. The same justification is accepted by the assessment team which leads to closure of the CAR.

Based on the above corrections and justification of the CAR and CL, it was observed that the values used in the emission reduction calculation^{/XLS/} are correct and formula and justification used for the calculation is consistent with the registered PDD.

5.10. Quality Management

Quality Management procedures for measurements, collection and compilation of data, data storage and archiving, calibration^{/CAL/}, maintenance and training of personnel^{/TR/} in the framework of this CDM project activity have been defined. The procedures defined can be assessed as appropriate for the purpose. No significant deviations thereof have been observed during the verification.

Further, it is evident from the monitoring data that the monitoring system ensures for continuous (except some breakdowns or outage) operation. All internal data are subjected to QA/QC measures. No significant deviations thereof have been observed during the verification. All monitored data are archived appropriately in line with the revised monitoring plan.

5.11. Comparison with ex-ante estimated emission reductions

The monitoring report^{MR/} includes a comparison of the actual emission reductions with the ex-ante calculated values in the registered PDD. The actual emission reduction in this monitoring period is 35,439 tCO_{2e} for monitoring period (2010-11-27 to 2012-04-30 (including first and last day) as compared to 46,801 tCO_{2e} in PDD which is 24% lower than the estimated CER as in PDD. Verification team assessed the same calculation and found correct.

5.12. Overall Aspects of the Verification

All necessary and requested documentation was provided by the project participants so that a complete verification of all relevant issues could be carried out.

Access was granted to all installations of the plant which are relevant for the project performance and the monitoring activities.

No issues have been identified indicating that the implementation of the project activity and the steps to claim emission reductions are not compliant with the UNFCCC criteria and relevant guidance provided by the COP/CMP and the CDM EB (clarifications and/or guidance).

5.13. Hints for next periodic Verification

No FAR has been raised during the course of 1st periodic verification.

6. VERIFICATION AND CERTIFICATION STATEMENT

Modern Road Makers Pvt. Ltd. has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "MRMPL Wind Power Project", with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to generation of electricity from wind energy. This verification covers the period from 2010-11-27 to 2012-04-30 (including both days).

In the course of the verification 4 Corrective Action Requests (CAR) and 1 Clarification Requests (CR) were raised and successfully closed. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the registered PDD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

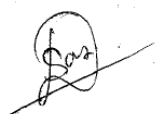
As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., ACM0002 ver.10
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 1st periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **35,439** CO_{2e}

Mumbai, 2012-11-26



Sukanta Das
TÜV NORD JI/CDM Certification Program
Verification Team Leader

Essen, 2012-11-26



Ingo Klein
TÜV NORD JI/CDM Certification Program
Final Approval

7. REFERENCES

Table 7-1: Documents provided by the project participant(s)

Reference	Document
/BR/	Break Down and maintenance Records of the project activity WTGs during the monitoring period i.e. 2010-11-27 to 2012-04-30.
/CAL/	Calibration certificates for the energy meters under the project activity dated 2010-04-20, 2011-03-11 and 2012-03-14
/CC/	Commissioning certificate of all 16 WTGs involved in the project activity dated 2009-09-01 and 2008-09-28.
/INV/	Invoices raised to Jodhpur Discom during the monitoring period i.e. 2010-11-27 to 2012-04-30
/LS/	Project layout Design and metering cluster arrangement for the project activity.
/MR/	<ul style="list-style-type: none"> Monitoring Report Version 01.1, dated 06/07/2012 based on which project assessment is carried out. Monitoring Report Version 01.2, dated 01/08/2012 based on which final assessment is carried out.
/O&M/	Operation and maintenance contract signed between MRMPL and SEL
/PPA/	Power Purchase Agreement between MRMPL, SEL and JVVNL dated 2008-09-15
/CN/	Credit Note issued by SEL during the monitoring period i.e. 2010-11-27 to 2012-04-30
/TR/	Training records of the personal working onsite for the project activity.
/TS/	Technical specifications of the WTG
/XLS/	<ul style="list-style-type: none"> Emission reduction calculation sheet for the project activity version 1, dated 2012-07-06 on which project assessment is carried out Emission reduction calculation sheet for the project activity version 2, dated 2012-08-01 on which final assessment is carried out.

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM0002/	ACM0002 ver.10, ““Consolidated baseline methodology for grid-connected electricity generation from renewable sources”,”
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/GLMP/	Guidelines for completing the monitoring report form (EB 66 Annex 20)
/IPCC/	<ol style="list-style-type: none"> 1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book
/KP/	Kyoto Protocol (1997)
/TOOL/	<ul style="list-style-type: none"> • Tools for the demonstration and assessment of additionality, Version 05.2, EB 39 • Tools to calculate the emission factor for an electricity system, Version 02, EB 50
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)
/MRT/	Monitoring Report Form (F-CDM-MR) Version 2.0
/PDD/	Project Design Document for CDM project: “ <i>MRMPL Wind Power Project</i> ” version 6, dated 2010-06-14
/PS/	Project Standard (EB 65 Annex 5)
/VAL/	Validation Report for CDM project “ <i>MRMPL Wind Power Project</i> ” version 02, dated 2010-6-15
/VER/	Documents of previous verifications (Monitoring report, verification report, ER calculation sheet)
/VVS/	UNFCCC Validation and Verification Standard (Version 2.0, EB 65)

Table 7-3: Websites used

Reference	Link	Organisation
/MoEF/	http://envfor.nic.in/	DNA of India
/UNFCCC/	http://cdm.unfccc.int	UNFCCC
/IPCC/	www.ipcc-nggip.iges.or.jp	IPCC publications

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Shilpa Todankar	DGM, MRMPL
/IM02/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Satish Sharma	Senior Engineer, SEL

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Verification Protocol
- A2:** Statements of Competence of
involved Personnel

ANNEX 1: VERIFICATION PROTOCOL

Table A-1: GHG calculation procedures and management control testing / detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
Raw data generation				
<ul style="list-style-type: none"> • Installation of measuring equipment • Dysfunction of installed equipment • Maloperation by operational personnel • Downtimes of equipment • Exchange of equipment • Change of measurement equipment characteristic • Insufficient accuracy • Change of technology 	<ul style="list-style-type: none"> • Installation of modern and state of the art equipment • Process control automation • Internal data review • Regular visual inspections of installed equipment • Only skilled and trained personnel operates the relevant equipment • Daily raw data checks • Immediate exchange of dysfunctional equipment • Stand-by duty is 	<ul style="list-style-type: none"> • Inadequate installation / operation of the monitoring equipment • Inadequate exchange of equipment • Change of personnel • Undetected measurement errors • Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies) • Non-application of management system procedures • Insufficient accuracy • Inappropriate QA/QC 	<ul style="list-style-type: none"> • Site – visit • Check of equipment • Check of technical data sheets • Check of suppliers information / guarantees • Check of calibration records, if applicable • Check of maintenance records • Counter-check of raw data and commercial data • Check of CDM management system • Check of CDM related procedures 	<ul style="list-style-type: none"> • See Table A-2

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
<ul style="list-style-type: none"> Accuracy of values supplied by Third Parties 	<ul style="list-style-type: none"> organized Training Internal audit procedures Internal check of QA/QC measures of involved Third Parties 	measures of Third Parties	<ul style="list-style-type: none"> Application of CDM management system procedures Check of trainings Check of responsibilities Check of QA/QC documentation / evidences of involved Third Parties 	
Raw data collection and data aggregation				
<ul style="list-style-type: none"> Wrong data transfer from raw data to daily and monthly aggregated reporting forms IT Systems Spread sheet programming Manual data transmission Data protection Responsibilities 	<ul style="list-style-type: none"> Cross-check of data Plausibility checks of various parameters. Appropriate archiving system Clear allocation of responsibilities Application of CDM Management system procedures Usage of standard software solutions 	<ul style="list-style-type: none"> Unintended usage of old data that has been revised Incomplete documentation Ex-post corrections of records Ambiguous sources of information Non-application of management system procedures Manual data transfer mistakes 	<ul style="list-style-type: none"> Check of data aggregation steps Counter-calculation Data integrity checks by means of graphical data analysis and calculation of specific performance figures Check of management system certification Check of data archiving system 	<ul style="list-style-type: none"> See Table A-2



Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
	(Spreadsheets) <ul style="list-style-type: none"> Limited access to IT systems Data protection procedures 	<ul style="list-style-type: none"> Unintended change of spread sheet programming or data base entries Problems caused by updating/upgrading or change of applied software 	<ul style="list-style-type: none"> Check of application of Management system procedures 	
Other calculation parameters				
<ul style="list-style-type: none"> Emission factors, oxidation factors, coefficients 	<ul style="list-style-type: none"> The values and data sources applied are defined in the PDD and monitoring plan 	<ul style="list-style-type: none"> Unintended or intended Modification of calculation parameters Wrong application of values Misinterpretations of the applied methodology and/ or the PDD Missing update of applicable regulatory framework (e.g. IPCC values) 	<ul style="list-style-type: none"> Update-check of regulatory framework Countercheck of the applied MP in the MR against the methodology and the PDD 	<ul style="list-style-type: none"> See Table A-2
Calculation Methods				

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
<ul style="list-style-type: none"> Applied formulae Miscalculation Mistakes in spread-sheet calculation 	<ul style="list-style-type: none"> Advanced calculation and reporting tools A CDM coordinator is in charge of the CDM related calculations Usage of tested / counterchecked Excel spreadsheets Involvement of external consultants 	<ul style="list-style-type: none"> The danger of miscalculation can only be minimized. 	<ul style="list-style-type: none"> Countercheck on the basis of own calculation. Spread sheet walk-through. Plausibility checks Check of plots 	<ul style="list-style-type: none"> See Table A-2
Monitoring reporting				
<ul style="list-style-type: none"> Data transfer to the author of the monitoring report Data transfer to the monitoring report Unintended use of outdated versions 	<ul style="list-style-type: none"> An experienced CDM consultant is responsible for monitoring reporting. CDM QMS procedures are defined 	<ul style="list-style-type: none"> The danger of data transfer mistakes can only be minimized Inappropriate application of QMS procedures 	<ul style="list-style-type: none"> Counter check with evidences provided. Audit of procedure application 	<ul style="list-style-type: none"> See Table A-2

Table A-2: (Project specific) Periodic Verification Checklist

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
A. Description of the project activity				
A.1. Purpose and general description of the project activity (EB 66 Annex 20, A.1) <i>Check if section A.1 of the MR includes the following:</i> <ul style="list-style-type: none"> - Purpose of the PA and the measures taken to reduce GHG emissions - Brief description of the installed technology and equipment - Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc.) - Total emission reductions achieved in this monitoring period 	/MR/ /GLMP/ /IM/	<p>The verification team has checked section A.1 of the MR and confirms that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Purpose of the PA and the measures taken to reduce GHG emissions <input checked="" type="checkbox"/> Brief description of the installed technology and equipments <input type="checkbox"/> Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc) <input type="checkbox"/> Total emission reductions achieved in this monitoring period <p>In this context the following findings have been identified:</p> <p><i>Description:</i> During assessment, verification team found that section A.1 of the monitoring report is not in line with MR filing guideline. Hence, CAR A1 has been raised.</p> <p><i>Verifier's action:</i> Assessment team checked the webhosted MR ver 1.1 and MR filling guideline. Further, justification will be reserved till the closure of the CAR.</p>	CAR A1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		Conclusion: CAR A1 has been raised.		
A.2. Location of project activity (EB 66 Annex 20, A.2) <i>Check if section A.2 of the MR reflects correctly the following:</i> <ul style="list-style-type: none"> - Host Party(ies) - Region / State / Province etc. - City / Town / Community etc. - Physical / geographical location (e.g. Latitude and Longitude) 	/MR/ /PDD/ /IM/	<p>The verification team has checked section A.2 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Host Party(ies) <input checked="" type="checkbox"/> Region / State / Province <input type="checkbox"/> City / Town / Community <input checked="" type="checkbox"/> Physical / Geographical location <p>In this context the following findings have been identified:</p> <p><i>Description:</i></p> <p>During assessment, verification team found that that section A.2 of the monitoring report is not in line with MR filing guideline. Hence, pending CAR A1 has been raised.</p> <p><i>Verifier's action:</i></p> <p>Assessment team checked the webhosted MR ver 1.1 and MR filling guideline. Further, justification will be reserved till the closure of the CAR.</p>	Pending closure of CAR A1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p><i>Conclusion:</i></p> <p>Pending CAR A1 has been raised.</p>		
<p>A.3. Parties and Project Participants (EB 66 Annex 20, A.3)</p> <p>Check if section A.3 of the MR includes the following:</p> <ul style="list-style-type: none"> - All PPs as displayed on the UNFCCC website - A correctly filled table as per the MR template 	/MR/ /unfccc/	<p>The verification team has checked section A.3 of the MR as well as the UNFCCC website and confirms that:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> all PPs as displayed on the project related UNFCCC website are correctly listed <input checked="" type="checkbox"/> the table as per the template MR has been correctly filled <p>In this context the following findings have been identified:</p> <p>N/A</p>	OK	OK
<p>A.4. Reference of applied methodology (EB 66 Annex 20, A.4)</p> <p>Check if section A.4 of the MR correctly describes / includes the following:</p> <ul style="list-style-type: none"> - Reference to the applicable version of the methodology - Reference to the applicable version(s) of relevant methodological tools - Relevant EB decisions, if applicable 	/MR/ /PDD/ /UNFCCC/	<p>The verification team has checked section A.4 of the MR and confirms by means of comparison with the information given in the PDD and displayed on the UNFCCC website that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Number, title and version of the applicable CDM Methodology <input type="checkbox"/> Name and version of applicable CDM methodological tools <input type="checkbox"/> Relevant EB decisions <p>In this context the following findings have been identified:</p> <p>Description:</p> <p>During assessment, verification team found that that section A.4 of the monitoring report is not in line with MR filing guideline.</p>	Pending closure of CAR A1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>Hence, pending CAR A1 has been raised.</p> <p><i>Verifier's action:</i></p> <p>Assessment team checked the webhosted MR ver 1.1 and MR filling guideline. Further, justification will be reserved till the closure of the CAR.</p> <p><i>Conclusion:</i> Pending CAR A1 has been raised.</p>		
<p>A.5. Crediting period of project activity (EB 66 Annex 20, A.5)</p> <p><i>Check if section A.5 of the MR correctly includes the following:</i></p> <ul style="list-style-type: none"> - <i>Start date of the crediting period. In this context please check, if applicable, whether post registration changes to the start date have been accepted by the EB.</i> - <i>Length and type of the crediting period</i> 	/MR/ /UNFCCC/	<p>The verification team has checked section A.5 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Start date of the crediting period. <input checked="" type="checkbox"/> Type and length of the crediting period <p>In this context the following findings have been identified: N/A</p>	OK	OK
<p>A.6. Publication of the Monitoring Report (EB 65 Annex 4, 207)</p> <p><i>Check if the monitoring report has been made</i></p>	/UNFCCC/	<p>The verification team has ensured and confirms by means of checking the respective project information on the UNFCCC website that:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The draft monitoring report, as received from the project participants, has been made publicly available prior to the 	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>publicly available on the UNFCCC website before the verification commenced. Check if comments have been received and if yes, how they have been addressed.</i>		start of the verification activities. <input checked="" type="checkbox"/> No comments have been received. In this context the following findings have been identified: N/A		
A.7. Compliance with standardized format of the Monitoring Report (EB 65 Annex 4, 212 h) <i>Check (only) if the latest applicable MR template has been used. For compliance assessment with the MR guideline pl. refer to the respective MR sections.</i>	/MRT/	The verification team has checked all sections of the MR and confirms by means of comparison with the MR template that: <input checked="" type="checkbox"/> the standardized MR template has been used In this context the following findings have been identified: N/A	OK	OK
B. Implementation of project activity				
B.1. Description of implemented registered project activity (EB 66 Annex 20, B.1) <i>Check if section B.1 of the MR correctly describes / includes the following:</i> <ul style="list-style-type: none"> - Implementation status of the PA - Detailed description of installed technology(ies) / technical processes and equipment applied - Diagrams (where appropriate) 	/MR/ /PDD/ /PS/ /IM/	The verification team has checked section B.1 of the MR and confirms by means of comparison with the information given in the PDD, the project standard and information gathered during the site visit that: <input checked="" type="checkbox"/> the description of the implementation status of the PA is in line with the applicable provisions of the project standard <input checked="" type="checkbox"/> an appropriate description of the installed technology(ies), technical process and equipment incl. diagrams, where applicable, has been included. In this context the following findings have been identified: N/A	OK	OK
B.1.1. Initial project implementation	/IM01/	<i>Description:</i> The project is implemented as described in the	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p>(EB 65 Annex 4; § 225 a, 226)</p> <p><i>Assess whether the project has been implemented and operated as per the registered PDD and are all physical features of the project in place?</i></p> <p><i>Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.</i></p> <p><i>Also, discuss – if applicable – any approvals of the necessary request of notification or request for approval of changes from the project activity as described in the registered PDD (EB 48 Annex 66/67).</i></p>	/PDD/	<p>PDD. Further, all the physical features of the project are in place. The project includes 16 WTGs and all were commissioned before registration of the project i.e. 27/11/2010.</p> <p><i>Verifier's action:</i> Verification team checked the physical implementation of project during the site visit. The commissioning dates of the WTGs installed under this project are confirmed from the commissioning certificates.</p> <p><i>Conclusion:</i> All 16 WTGs are commissioned before the registration of the project activity. Moreover, there is no change in project implementation since registration of the project activity. The total geographic coordinates are checked onsite with GPS system and found correct as per the registered PDD.</p>		
<p>B.1.2. Technical equipment changes –(EB 65 Annex 4; § 225 a, 226)</p> <p><i>Check if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period. Further ensure that consistent notations of key equipment (meters etc.) in PDD, MR and calculation spreadsheet are applied</i></p> <p><i>Consider e.g. interviews with operational personnel, QMS records, maintenance records, instrument specifications.</i></p> <p><i>In case of changes, check whether the project is still in line with the registered PDD and assure that these</i></p>	/IM01/ /PDD/	<p><i>Description:</i> The project is implemented as described in the PDD. Further, all the physical features of the project are in place. The project includes 16 WTGs and all were commissioned before registration of the project i.e. 27/11/2010. Technical equipment of the project activity has not been changed or modified during the monitoring period. The project is in line with the registered PDD in terms of operation.</p> <p><i>Verifier's action:</i> According to the discussions carried out with plant personnel onsite and subsequent document review it is found that relevant technical equipment of the project activity has not been exchanged or modified during the monitoring period.</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>changes have been considered in the monitoring report and the emission reduction calculation.</i></p> <p><i>In case of post registration changes pl. refer to chapter B.2.</i></p>		<p>Conclusion: No technical equipment in the project have been changed</p>		
<p>B.1.3. Operation of the project activity –(EB 65 Annex 4; § 225 a, 226)</p> <p><i>Check if relevant operation modes of the project activity have been exchanged or modified during the monitoring period.</i></p> <p><i>Consider e.g. interviews with operational personnel, operation log sheets, data management system records.</i></p> <p><i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission reduction calculation.</i></p> <p><i>In case of post registration changes pl. refer to chapter B.2.</i></p>	<p>/IM01/ /PDD/ /CC/</p>	<p>Description:</p> <p>The project activity consists of 16 WTGs of 1250 kW capacities each, and the operation of the project activity is in line with the monitoring plan in terms of operation. The operation mode of the project have not been changed / replaced during the monitoring period.</p> <p>Verifier's action:</p> <p>During site visit and interview with the operational personnel no change in the project equipment is observed. Further, commissioning certificate and the break down records have been checked by the assessment team.</p> <p>Conclusion:</p> <p>All the operation modes are as per the registered PDD. During the onsite visit the subsequent documents are cross checked and found correct.</p>	OK	OK
<p>B.1.4. Incidents (EB 65 Annex 4; § 225 a, 226)</p> <p><i>Identify if there have been any significant incidents, deviant operation modes and / or downtimes of the equipment?</i></p>	<p>/IM01/ /BR/</p>	<p>Description:</p> <p>During the onsite visit and discussion with PP, it was found that there were no such significant forced downtime occurred for this monitoring period except for the scheduled maintenance and operational breakdowns. Moreover, section B.1 of the MR does not mention summary of description of events or situations</p>	CAR B1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Consider e.g. interviews with operational personnel, operational log sheets, analysis of performance data.</i>		<p>occurred during the monitoring period Thus CAR B1 has been raised.</p> <p><i>Verifier's action:</i> The O&M contractor, SEL maintains the record of the project operation. During the site visit the same was checked and found correct.</p> <p><i>Conclusion:</i> CAR B1 was raised.</p>		
<p>B.1.5. Legislation</p> <p>Find out – esp. in the context of methodological requirements - whether relevant legislation with effect on the project activity in the host country has been changed.</p> <p>Assess, in case of changes, whether consequences for the PA with regard to relevant CDM requirements have been accounted for.</p> <p>In case of changes data sources shall be referenced.</p>	/IM01/ /PPA/	<p><i>Description:</i> The legislation has not changed w.r.t projects for which the PPA is already signed and is valid for a period of 20 years from commissioning. No regulation with impact on the project could be identified.</p> <p><i>Verifier's action:</i> The legislation for projects already implemented remains as described in the PPA.</p> <p><i>Conclusion:</i> Relevant legislation associated with this project activity has not changed during this monitoring period.</p>	OK	OK
<p>B.1.6. Open issues from validation -(EB 65 Annex 4; § 213)</p> <p><i>Check (esp. in case of 1st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR)?</i></p>	/VAL/	<p><input checked="" type="checkbox"/> There were no open issues addressed in the validation report</p> <p><input type="checkbox"/> All open issues from the validation have been appropriately addressed.</p> <p><input type="checkbox"/> The following issues related to the validation have not yet been appropriately addressed:</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.												
B.1.7. Open issues from previous verification -(EB 65 Annex 4; §§ 213; 284 h) <i>Check in case of further periodic verifications whether there are any open issues indicated in previous verification reports (FAR) and take into consideration the guidance as specified in VVS.</i>	/VER/	<div><input checked="" type="checkbox"/> There were no open issues addressed in the previous verification report</div> <div><input type="checkbox"/> All open issues from the previous verification have been appropriately addressed.</div> <div><input type="checkbox"/> The following issues related to the previous verification have not yet been appropriately addressed:</div>	OK	OK												
B.2. Post registration changes																
B.2.1. Are post registration changes applicable to the proposed project activity?		<div><input checked="" type="checkbox"/> No, by means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology. <i>(Please proceed with section C)</i></div> <div><input type="checkbox"/> Yes, post registration changes have been identified and are assessed in detail in the subsequent steps. <i>(Please proceed with B.2.2.)</i></div>	OK	OK												
B.2.2. Temporary deviations from the registered monitoring plan or applied methodology (TDfrMP; TDfMM) (EB 66 Annex 20, B.2.1; EB 65 Annex 4; §§ 251 - 256))	/PS/ /unfccc/	<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td><input type="checkbox"/></td><td colspan="3">The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC</td></tr><tr><td>1</td><td>Title</td><td colspan="2"></td></tr></table>	<input checked="" type="checkbox"/>	No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period			<input type="checkbox"/>	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC			1	Title			OK	OK
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1	Title															

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																
<p>Indicate whether any temporary deviations have been applied during this monitoring periods.</p> <p>In cases where approval has been sought from the EB please provide reference.</p> <p>If applied, provide a description of the deviation(s).</p> <p>This should include the reasons for the deviation(s), how it deviates from the monitoring plan and/or applied methodology(ies), the duration for which the deviation(s) is(are) applicable and justification on the conservativeness of the approach. Indicate if the deviation will lead to a reduction in the accuracy and if so, which conservative assumptions and discount factors have been applied.</p> <p>For deviation(s) that require prior approval by the Board, include the date of approval and reference number.</p>		<table border="1"> <tr> <td rowspan="3"></td> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref. No.</td> <td></td> </tr> <tr> <td rowspan="4">2</td> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref.No.</td> <td></td> </tr> </table>		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref. No.		2	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref.No.			
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		<input checked="" type="checkbox"/> During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA																		
		<input type="checkbox"/> An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.																		
		<table border="1"> <tr> <td>1</td> <td>Issue:</td> <td></td> </tr> <tr> <td>2</td> <td>Issue:</td> <td></td> </tr> </table>	1	Issue:		2	Issue:													
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		<input type="checkbox"/> The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:																		
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2	Issue:																			
<p>In cases of approved TDfrMP or TDfM the EB guidance has</p>																				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.														
		<p><i>been applied as follows:</i></p> <p><i>Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:</i></p> <p>In this context the following findings have been identified: N/A</p>																
<p>B.2.3. Corrections (EB 66 Annex 20, B.2.2)</p> <p><i>Indicate whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report.</i></p> <p><i>In cases where the correction(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i></p> <p><i>Please check and report that the corrected information is an accurate reflection of the actual project information and that the corrected parameters are in accordance with the applied methodology and</i></p>		<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">During the verification of the current MP no need for corrections has been identified.</td></tr><tr><td rowspan="3"><input type="checkbox"/></td><td colspan="3">The following corrections have been applied:</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr><tr><td>2</td><td>Issue:</td><td></td></tr></table> <p><i>Detailed description and justification each correction:</i></p> <p>In this context the following findings have been identified: N/A</p>	<input checked="" type="checkbox"/>	During the verification of the current MP no need for corrections has been identified.			<input type="checkbox"/>	The following corrections have been applied:			1	Issue:		2	Issue:		OK	OK
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Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																																					
<i>the monitoring plan.</i>																																									
B.2.4. Permanent changes from the registered monitoring plan or applied methodology (PCfrMP; PCfMM) (EB 66 Annex 20, B.2.3) <i>Indicate whether any permanent changes from the registered monitoring plan or applied methodologies have been approved during this monitoring period or submitted with this monitoring report.</i> <i>In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i>		<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="8"><input type="checkbox"/></td><td colspan="3">The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC</td></tr><tr><td rowspan="4">1</td><td>Title</td><td></td></tr><tr><td>Status</td><td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td>Ref. No.</td><td></td></tr><tr><td rowspan="4">2</td><td>Title</td><td></td></tr><tr><td>Status</td><td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td>Ref.No.</td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td colspan="3">During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA</td></tr><tr><td rowspan="2"><input type="checkbox"/></td><td colspan="3">An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr></table>	<input checked="" type="checkbox"/>	No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period			<input type="checkbox"/>	The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC			1	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref. No.		2	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref.No.		<input checked="" type="checkbox"/>	During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA			<input type="checkbox"/>	An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.			1	Issue:		OK	OK
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	1	Issue:																
	2	Issue:																
B.2.5. Changes to the project design of the registered project activity (CoPD) <i>(EB 66 Annex 20, B.2.4)</i> <i>Indicate whether any changes to the project design of</i>		<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No CoPD has been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td><input type="checkbox"/></td><td colspan="3">The following CoPD has been approved or are under approval by the UNFCCC</td></tr></table>	<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period			<input type="checkbox"/>	The following CoPD has been approved or are under approval by the UNFCCC			OK	OK						
<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period																	
<input type="checkbox"/>	The following CoPD has been approved or are under approval by the UNFCCC																	



Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.		
<p><i>the project activity have been approved during this monitoring period or submitted with this monitoring report.</i></p> <p><i>In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i></p>		1	Title			
			Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved		
			Appr.date			
			Ref. No.			
		2	Title			
			Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved		
			Appr.date			
			Ref.No.			
		<input checked="" type="checkbox"/>	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA			
		<input type="checkbox"/>	An approval of the following CoPD.is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.			
		1	Issue:			
		2	Issue:			
		<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:			
		1	Issue:			
		2	Issue:			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.		
		<p><i>In cases of approved CoPD the EB guidance has been applied as follows:</i></p> <p><i>Detailed description and justification each CoPD for which appendix 1 is applicable:</i></p> <p>In this context the following findings have been identified: N/A</p>				
C. Description of monitoring system						
<p>C.1. Monitoring Plan – PDD Compliance (EB 65 Annex 1, § 233-236)</p> <p><i>Check if the monitoring plan is in accordance with the monitoring plan contained in the registered PDD (or any accepted revised MP).</i></p> <p><i>Please check esp. if</i></p> <ul style="list-style-type: none">- <i>all parameters stated in the MP of the registered PDD have been monitored and updated as applicable</i>- <i>the monitoring equipment has been controlled and calibrated as per the MP</i>- <i>the monitoring results are consistently recorded as per the approved frequency</i>- <i>QA/QC procedures have been applied in</i>	<p>/MR/ /PDD/</p>	<p>By means of comparison of the MR with the registered PDD (or any revisions thereof) the verification team has checked whether the MP is in compliance with the registered PDD. The outcome is as follows:</p> <table border="1"><tr><td><input checked="" type="checkbox"/></td><td>The MP is completely in accordance with the last registered/approved version of the PDD / MP.</td></tr></table> <p>In this context the following findings have been identified: N/A</p>	<input checked="" type="checkbox"/>	The MP is completely in accordance with the last registered/approved version of the PDD / MP.	OK	OK
<input checked="" type="checkbox"/>	The MP is completely in accordance with the last registered/approved version of the PDD / MP.					

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																												
accordance with the MP																																
C.2. Monitoring Plan – Meth Compliance (EB 65 Annex 4, § 229-232) <i>Check if the monitoring plan is in accordance with the applied methodology.</i> <i>In case the methodology references applicable tools it has to be ensured that the MP is also compliant with those tools.</i> <i>Also please specify if monitoring aspects have been identified that are not specified in the methodology but may enhance the level of accuracy and completeness of the monitoring plan – this esp. applies for SSC PAs.</i>	/MR/ /PDD/ /AM9/ /T-FFC/ /T-EC/ /T-CAD/	<div>By means of comparison of the MR with the applied CDM methodology and related tools the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology. The outcome is as follows:</div> <table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)</td></tr><tr><td><input type="checkbox"/></td><td colspan="3">The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:</td></tr><tr><td rowspan="3">1</td><td>Title (of the tool)</td><td colspan="2">Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion</td></tr><tr><td>Version</td><td colspan="2">2</td></tr><tr><td>MP compliance</td><td colspan="2"><input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)</td></tr><tr><td rowspan="3">2</td><td>Title (of the tool)</td><td colspan="2">Tool to calculate baseline, project and/or leakage emissions from electricity consumption</td></tr><tr><td>Version</td><td colspan="2">1</td></tr><tr><td>MP compliance</td><td colspan="2"><input type="checkbox"/> full compliance</td></tr></table>	<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)			<input type="checkbox"/>	The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:			1	Title (of the tool)	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion		Version	2		MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)		2	Title (of the tool)	Tool to calculate baseline, project and/or leakage emissions from electricity consumption		Version	1		MP compliance	<input type="checkbox"/> full compliance		Pending closure of CAR A1	OK
<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)																															
<input type="checkbox"/>	The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:																															
1	Title (of the tool)	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion																														
	Version	2																														
	MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)																														
2	Title (of the tool)	Tool to calculate baseline, project and/or leakage emissions from electricity consumption																														
	Version	1																														
	MP compliance	<input type="checkbox"/> full compliance																														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.	
					<div><input type="checkbox"/> findings have been raised</div> <div><input checked="" type="checkbox"/> N/A (for MP)</div>			
		3	Title (of the tool)	Combined tool to identify the baseline scenario and demonstrate additionality				
			Version	2.1				
			MP compliance	<div><input type="checkbox"/> full compliance</div> <div><input type="checkbox"/> findings have been raised</div> <div><input checked="" type="checkbox"/> N/A (for MP)</div>				
		In this context the following findings have been identified: Verification team assessed the webhosted monitoring report and found that applicable tool used in this project is not mentioned. Hence, pending CAR A1 has been raised.						
C.3. Management System (EB 65 Annex 4, § 217 (iii)) <i>Check if the GHG data monitoring system can be assessed as appropriate.</i> <i>In case reference is made to a (certified) company quality management system, check if all CDM related monitoring procedures have been fully integrated in the project participant's quality management system.</i> <i>In case of a stand-alone system, check how the GHG management system has been implemented and</i>		<i>Description:</i> SEL is responsible for maintaining all the monitoring data, recording, reporting, and archiving the data. The meter reading is being taken jointly by the representatives of SEL and JVVNL in the form of JMR. The net electricity generated by the project owners is being provided by SEL in form of credit note of electricity generated. Further, MR is silent about the same. Hence, CAR C1 has been raised. <i>Verifier's action:</i> Verification team checked the organizational structure in this					CAR C1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>effectiveness is ensured.</i>		project activity and interview with the O&M officials to confirm that proper Management systems are being followed. <i>Conclusion:</i> CAR C1 has been raised.		
C.4. Metering diagram (EB 66 Annex 20, C; EB 65 Annex 5 §190) <i>Check first if the MR includes a metering diagram showing all relevant monitoring points.</i> <i>Check further if this diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.</i>	/PS/	<i>Description:</i> The WTGs under this project activity are connected to two separate feeders. Further, both these feeders are connected to a common energy meter (main and check) and Joint Meter Reading for this project activity is taken by SEL and JVVNL. The same has been described in the section C of the MR, which is in line with the approved registered PDD. Further, MR is lacks about the metering diagram involved in this project activity. Hence pending CAR C1 has been raised. <i>Verifier's action:</i> The metering positions have been confirmed during the site visit and found correct. Further, MR, project standard and MR filling guideline have been checked by the assessment team. Further, justification is reserved till the closure of the pending CAR. <i>Conclusion:</i> Pending CAR C1 has been raised	Pending closure of CAR C1	OK
C.5. Roles and Responsibilities (EB 66 Annex 20, C; EB 65 Annex 5 §190) <i>Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan.</i>	/PS/	<i>Description:</i> SEL has the operation and maintenance contract for monitoring related to the project. SEL is ISO 9000:2008 certified organization. Responsibilities for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel are in place as	Pending closure of CAR C1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>Please consider the complete data trail from raw data generation to submission of the final data.</i></p> <p><i>Identify, if relevant personnel w.r.t. monitoring has been exchanged?</i></p> <p><i>If so, have appropriate training measures been carried out.</i></p> <p><i>In case of changes, assure that the implemented monitoring procedures have not been affected.</i></p>		<p>mentioned in the registered PDD. Further, pending CAR C1 has been raised.</p> <p><i>Verifier's action:</i></p> <p>Verification team During the site visit it was observed that all the data acquired is in the safe custody of the project participant. Further, justification is reserved till the closure of the pending CAR.</p> <p><i>Conclusion:</i> Pending CAR C1 has been raised.</p>		
<p>C.6. Emergency procedures for the monitoring system (EB 54 Annex 34, C; EB 65 Annex 5 §190)</p> <p><i>Check, as appropriate, whether relevant emergency procedures for the monitoring system have been included in the MR and assess whether these procedures have been implemented, when required</i></p>	/PS/	<p><i>Description:</i></p> <p>All the Main and Check meters are tested for accuracy annually with reference to a portable standard meter. As the instruments are calibrated and marked at regular intervals, the accuracy of measurement can be assured at all times. To ensure accurate and continuous monitoring, MRMPL has a standby meter. Same was checked during verification and found correct.</p> <p><i>Verifier's action:</i> MR and registered PDD have been checked by the assessment team and found correct</p> <p><i>Conclusion:</i> Emergency procedure for this project activity is in place.</p>	OK	OK
<p>C.7. Data archive and data protection</p>		<p><i>Description:</i></p>	OK	OK



Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p>(EB 65 Annex 5 §56 b)</p> <p>Check whether all records of monitoring parameters are archived according to the monitoring plan.</p> <p>Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data.</p>		<p>The data (electricity supplied to the grid) will be archived on electronic media as well as on paper. The archive will be kept for the period up to two years after the completion of the crediting period.</p> <p><i>Verifier's action:</i></p> <p>During the site visit it was observed that the data archiving procedure and data management structure is as per the registered PDD.</p> <p><i>Conclusion:</i></p> <p>All records of monitoring parameters are archived according to the monitoring plan</p>		
D. Data and parameters				
D.1. Data and Parameters fixed ex ante				



Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p>a) Compliance with registered PDD (EB66 Annex 20; D1)</p> <p><i>Check whether the value applied is in compliance with the registered PDD.</i></p>	<p>/MR/ /PDD/</p>	<p><i>Description:</i></p> <p>In this project activity, PP has considered following three parameters that would be fixed throughout the crediting period.</p> <ul style="list-style-type: none"> • Weighted Average Simple Operating margin of the grid • Build Margin of the grid. • Combined Margin emission factor of the grid <p>Assessment team checked the monitoring report and found that the ex ante fixed data are described appropriately on the MR.</p> <p><i>Verifier's action:</i></p> <p>MR and registered PDD has been checked by the verification team.</p> <p><i>Conclusion:</i> The value applied is in compliance with the registered PDD.</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
b) Compliance with the applied methodology (EB66 Annex 20; D1) <i>Check whether the value applied is in compliance with the applied methodology or any other tool.</i>	/MR/ /PDD/	<p><i>Description:</i></p> <p>In this project activity, PP has considered following three parameters that would be fixed throughout the crediting period.</p> <ul style="list-style-type: none"> • Weighted Average Simple Operating margin of the grid • Build Margin of the grid. • Combined Margin emission factor of the grid <p>Assessment team checked the monitoring report and found that the ex ante fixed data are described appropriately on the MR.</p> <p><i>Verifier's action:</i></p> <p>MR and registered PDD have been checked by the verification team.</p> <p><i>Conclusion:</i> The value applied is in compliance with the registered PDD.</p>	OK	OK
D.2. Data and Parameters monitored				
D.2.1. EG_y				
a) Measurement / Determination method (EB 65 Annex 4, § 233, 236) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged</i>	/IM01/ /PDD/ /ACM002 /	<p><i>Description:</i></p> <p>The electricity exported by the project activity has been taken directly from the credit note issued by state electricity utility on monthly basis. It has been calculated on the basis of main meter reading located at Soda Mada sub-station and the individual</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>		<p>WTG controller reading.</p> <p><i>Verifier's action:</i></p> <p>The measurement procedure has been verified by interview with the O&M team during onsite verification conducted by the verification team. The credit note of electricity for the entire monitoring period are verified by the verification team and found appropriate.</p> <p><i>Conclusion:</i> The verification team concludes that the measurement method of the parameter is in line with the registered monitoring plan and the applied methodology, ACM0002, Version 10.</p>		
<p>b) Accuracy and QA/QC Procedure (EB 65 Annex 4, §§ 237-241)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p>	/CAL/	<p><i>Description:</i></p> <p>This parameter is monitored by the energy meter located at Soda Mada substation. The meter installed to monitor this data is calibrated once in a year as per the monitoring plan and the accuracy class of this meter is $\pm 0.2\%$. Moreover, calibration of the main meter was delayed 4 days. Further, same is not taken into account in the ER calculation. Hence CAR D1 has been raised.</p> <p><i>Verifier's action:</i></p> <p>Energy meter and the calibration of energy meters are checked During site visit by the verification team. Further, justification would be provided after the closure of the CAR.</p>	CAR D1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		Conclusion: CAR D1 has been raised.		
c) Correctness (EB 65 Annex 4, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/	<input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct (initial assessment) Description: During assessment, verification team found that calibration of the energy meter was scheduled on 10/03/2012 but actual calibration was delayed. Further, same is not taken into account in the ER calculation. Hence pending CAR D1 has been raised. Verifier's action: Energy meter and the calibration of energy meters are checked During site visit by the verification team. Further, justification would be provided after the closure of the CAR. Conclusion: Pending CAR D1 has been raised.	Pending closure of CAR D1	OK
D.2.2. EC_y				
a) Measurement / Determination method (EB 65 Annex 4, § 233, 236) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i>	/IM01/ /PDD/ /ACM002 /	Description: The electricity imported by the project activity has been taken directly from the credit note issued by state electricity utility on monthly basis. It has been calculated on the basis of main meter reading located at Soda Mada sub-station and the individual WTG controller reading. Verifier's action: The measurement procedure has been verified by interview by	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.		<p>the O&M team during onsite verification conducted by the verification team. The credit note of electricity for the entire monitoring period are verified by the verification team and found appropriate.</p> <p><i>Conclusion:</i> The verification team concludes that the measurement method of the parameter is in line with the registered monitoring plan and the applied methodology, ACM0002, Version 10.</p>		
<p>b) Accuracy and QA/QC Procedure (EB 65 Annex 4, §§ 237-241)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p>	/CAL/	<p><i>Description:</i></p> <p>This parameter is monitored by the energy meter located at Soda Mada substation. The meter installed to monitor this data is calibrated once in a year as per the monitoring plan and the accuracy class of this meter is $\pm 0.2\%$. Moreover, calibration of the energy meter was delayed 4 days. Further, same is not taken into account in the ER calculation. Hence pending CAR D1 has been raised.</p> <p><i>Verifier's action:</i></p> <p>Energy meter and the calibration of energy meters are checked During site visit by the verification team. Further, justification would be provided after the closure of the CAR.</p> <p><i>Conclusion:</i> Pending CAR D1 has been raised.</p>	Pending closure of CAR D1	OK
<p>c) Correctness (EB 65 Annex 4, §§ 233, 236)</p>	/MR/	<p><input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p>	Pending closure	OK


Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p>		<p>During assessment, verification team found that calibration of the energy meter was scheduled on 10/03/2012 but actual calibration was delayed. Further, same is not taken into account in the ER calculation. Hence pending CAR D1 has been raised.</p> <p><i>Verifier's action:</i> Energy meter and the calibration of energy meters are checked During site visit by the verification team. Further, justification would be provided after the closure of the CAR.</p> <p><i>Conclusion:</i> Pending CAR D1 has been raised.</p>	e of CAR D1	
E. Calculation of Emission reductions				
<p>E.1. Traceability (EB 65 Annex 4, §§ 212, 214)</p> <p><i>Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spread-sheet shall be used. All applied formulae must be visible.</i></p>	/XLS/	<p><i>Description:</i></p> <p>The calculation of the emission reduction is traceable. An emission reduction calculation spread sheet is submitted by the project proponent along with the monitoring report. The formulae applied for the emission reduction calculation are clearly correct. Duration of the monitoring period of the project activity is from 27/11/2010 to 30/04/2012. Further, emission reduction has been calculation from 01/12/2010 to 31/04/2012. Hence, CL E1 has been raised.</p> <p><i>Verifier's action:</i> The registered PDD, MR and ER sheet have been checked in order to ensure correctness the formulae applied for the</p>	CL E1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>calculation. Further, justification would be provided after the closure of the CL.</p> <p><i>Conclusion:</i> CL E1 has been raised.</p>		
<p>E.2. Parameter consistency (EB 65 Annex 4, § 214)</p> <p><i>Assess whether all internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet?</i></p> <p><i>Consider only the correct data exchange between the monitoring report and the calculation spreadsheet (if any). Further ensure the consistency of notations for all parameters in the PDD, MR, calculation spreadsheet.</i></p>	/XLS/	<p><i>Description:</i></p> <p>All the internal and external parameters and data used for the calculation are verified by the verification team. The data between the monitoring report and the emission reduction calculation sheet are also assessed. Designations of the parameters are also used consistently in the MR in line with the registered PDD. Further, duration of the monitoring period of the project activity is from 27/11/2010 to 30/04/2012. But, emission reduction has been calculation from 01/12/2010 to 31/04/2012. Hence, pending CL E1 has been raised.</p> <p><i>Verifier's action:</i></p> <p>The registered PDD, monitoring report and the emission reduction calculation spread sheet are checked by the verification team to confirm the same. Further, justification would be provided after the closure of the CL.</p> <p><i>Conclusion:</i> Pending CL E1 has been raised.</p>	Pending closure of the E1	OK
<p>E.3. Correctness of calculation (EB 65 Annex 1, §§ 235-236)</p> <p><i>Check if the applied formulae and methods for calculating baseline emissions, project emissions and</i></p>	/XLS/ /MR/ /PDD/	<p><i>Description:</i></p> <p>The applied formulae and methods for calculating baseline emissions are as per the Monitoring plan. Further project emissions and leakage are zero as per the registered PDD.</p>	Pending closure of CAR D1 and	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>leakage are in accordance with the monitoring plan and / or the approved methodology.</i></p> <p><i>Assess whether the provided calculations are complete and reflect all requirements of the monitoring plan.</i></p> <p><i>Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.</i></p>		<p>Further, duration of the monitoring period of the project activity is from 27/11/2010 to 30/04/2012. But, emission reduction has been calculation from 01/12/2010 to 31/04/2012 and calibration of the energy meter has been delayed. But same has not been incorporated in the emission reduction calculation. Hence, pending CAR D1 and CL E1 has been raised.</p> <p><i>Verifier's action:</i> The formulae in the MR are checked with the approved Monitoring plan. Further, justification would be provided after the closure of the CAR and CL.</p> <p><i>Conclusion:</i> Pending CAR D1 and CL E1 has been raised.</p>	CL E1	
<p>E.4. Emission reductions table (EB 66 Annex 20, E.4)</p> <p><i>Check if the MR includes a summary table of the emission reductions calculation specifying separately</i></p> <ul style="list-style-type: none"> - Total baseline emissions - Total project emissions: - Total leakage - Total emission reductions. <p><i>Assess whether the values are correct or need to be revised as a consequence of issues identified above.</i></p>		<p><input checked="" type="checkbox"/> The MR includes in section E.4 a summary table of the emission reductions calculation.</p> <p><input checked="" type="checkbox"/> The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.</p> <p><input type="checkbox"/> The values as specified in the ER summary table are correct; no issues have been identified during the verification which require changes in the ER calculation.</p> <p><input type="checkbox"/> During the verification issues with impact on the ER calculation have been identified. Thus subject to the closure of above listed findings the summary table in E.4 needs to be revised.</p> <p>In this context the following additional findings have been identified:</p>	Pending closure of CAR D1 and CL E1	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		Further, duration of the monitoring period of the project activity is from 27/11/2010 to 30/04/2012. But, emission reduction has been calculation from 01/12/2010 to 31/04/2012 and calibration of the energy meter has been delayed. But same has not been incorporated in the emission reduction calculation. Hence, pending CAR D1 and CL E1 has been raised.		
E.5. Comparison with ex-ante determined emission reductions (EB 66 Annex 20, E.5; E.6) <i>Check if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.</i> <i>Check further whether in case of an increase an appropriate explanation is included in the MR.</i> <i>Assess in case of a significant increase whether this is due to technical or organisational changes within or outside the control of the PP which might require a notification / approval of changes (as per EB 48 Annex 66/67).</i>	/XLS/ /MR/ /PDD/	<p><i>Description:</i></p> <p>The MR includes the comparison of values of the monitoring period with the estimations in the registered PDD. The emission reductions during the current monitoring period are lower than the PDD estimates. Further, duration of the monitoring period of the project activity is from 27/11/2010 to 30/04/2012. But, emission reduction has been calculation from 01/12/2010 to 31/04/2012</p> <p><i>Verifier's action:</i> The comparison in the MR is checked. Further, justification would be provided after the closure of the CL</p> <p><i>Conclusion:</i> Pending CL E1 has been raised.</p>	Pending closure of the CL E1	OK

ANNEX 2: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Sukanta Das

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2014-03-08
VCS / ISO 14064-2	Lead Assessor	2014-03-08


Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies

089 - Rev. 1, Date: 2012-06-18

089_S01-F003_2012-06-18_rev1.doc

S01-F003 rev2 / 2012-04-05



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Sandip Saha

SCHEME	STATUS	VALID UNTIL
CDM	Assessor (Validation, Verification)	2015-08-22
VCS / ISO 14064-2	Assessor	2015-08-22


Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable energies

275 - Rev. 2, Date: 2012-08-23

275_S01-F003_2012-08-23_rev2.doc

S01-F003 rev2 / 2012-04-05



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Ingo Klein

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification) Technical Reviewer	2013-10-17
VCS	Lead Assessor Technical Reviewer	2013-10-17

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal

122 - Rev. 1, Date: 2011-08-08

122_S01-F003_2011-08-08_rev1

S01-F003 rev1 / 2011-08-02



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Tahsin Choudhury

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	
8.2	Oil and Gas Industry	
10.2	Oil and Gas Industry	

281 – Rev. 0, Date: 2011-10-10

281_801-F003_2011-10-10_rev0

801-F003 rev1 / 2011-08-02