VERIFICATION AND CERTIFICATION REPORT

Enercon (India) Limited

"20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra"

In

India

URS VERIFICATION PRIVATE LIMITED
F 31, Sector 6,
Noida – 201 301
India
T : +91 (0120) 640223-26
F : +91 (0120) 4297916
E : ccms@urs-climate.com
W:www.ursindia.com/www.urs-climate.com

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0.1 Abbreviations

BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CDM-PCP	Clean Development Mechanism Project Cycle Procedure
CDM-PS	Clean Development Mechanism Project Standard
CDM-VVS	Clean Development Mechanism Validation and Verification Standard
CER(s)	Certified Emission Reduction(s)
CH_4	Methane
CL	Clarification Request
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MoV	Means of Verification
MOC	Modalities of Communication
MP	Monitoring Plan
MR	Monitoring Report
MSEDCL	Maharshtra State Electricity Distribution Company Limited
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PE	Project Emission
PP(s)	Project Participant(s)
Ref.	Document Reference
SS(s)	Sectoral Scope(s)
SSC	Small Scale
SV	Site Visit
TA	Technical Area within the Sectoral Scope
UNFCCC	United Nations Framework Convention on Climate Change
URS	URS Verification Private Limited
VVS	Validation & Verification Standard
WTGs	Wind Turbine Generators
WECs	Wind Energy Convertors
YMPL	Yadav Measurements Pvt. Ltd.

0.2 Executive Summary and Conclusion:

Project Title:		**URS Project Report Number:**	
"20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra"		CCMS/000103	
UN Reference Number:		**Country**	
3854		India	
Estimated CERs (tCO_2e):		**Certified CERs (tCO_2e):**	
22,232 tCO_{2e}		17,896 tCO_{2e}	
Methodology: – "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"			
Number	ACM0002	**Version**	version 11 dated 12/02/2010
SS(s) and Scale:		01 & TA: 1.2, Large Scale	
Client:			
Enercon (India) Limited			
Date of this Report:		**Date of Approval:**	
25/08/2012		03/10/2012	
Publication of Monitoring Report:			
Monitoring Period:		01/08/2011 to 31/03/2012	
Summary:		**CDM Verification**	

URS Verification Private Ltd has performed the 2nd periodic verification of the CDM project "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra", with UNFCCC reference number of 3854, registration date of 14/12/2010 and crediting period from 14/12/2010 to 13/12/2020 (Fixed). The verification includes confirming the implementation of the monitoring plan of the registered PDD version 04 dated 12/04/2010 and the application of the monitoring methodology as per ACM 0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 11 dated 12/02/2010. A site visit was conducted to verify the data submitted in the monitoring report. URS confirms the following has been reviewed:

(a) The registered PDD, including the monitoring plan and the corresponding validation report;

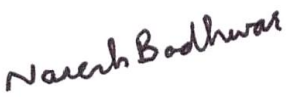
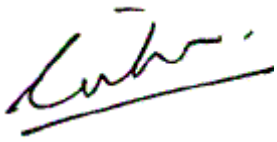
(b) Monitoring report, previous verification reports,

(c) The applied monitoring methodology;

(d) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board;

(e) All information and references relevant to the project activity's resulting in emission reductions.

URS confirms that the project is implemented in accordance with the validated and registered Project Design Document. The monitoring system is in place and the emission reductions are calculated without material misstatements. The permanent changes to the monitoring plan and corrections in PDD are submitted alongwith request for issuance in line with para 134 of Project Cycle Procedure. Based on the information seen and evaluated, we confirm that the implementation of the project has resulted in 17,896 tCO_{2e} emission reductions during period 01/08/2011 to 31/03/2012.

Work Carried out by: (Team Compostion)	Vinay Singh – Lead Assessor & Technical Expert Rajeev Singhal – Financial Expert		☒ No Distribution without permission from the client or responsible organisation unit
Technical Review (Internal Quality Control)			☐ Limited Distribution
	Naresh Badhwar	24/09/2012	
Final Report Verified: (Scheme Manager)			☐ Unrestricted Distribution
	Mukesh Singhal	03/10/2012	

1. INTRODUCTION

1.1 Objective

URS Verification Private Ltd has been contracted by Enercon (India) Limited (project participant of the project) to perform an independent verification of its CDM project "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra". CDM projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Certified Emission Reductions (CERs).

The objectives of this verification exercise are to establish that:

- The project activity has been implemented and operated as per the registered PDD and that all physical features (technology, project equipment and monitoring and metering equipment) of the project are in place;

- The monitoring report, emission report and other supporting documents provided are complete in accordance with latest applicable version of the completeness checklist for requests for issuance of CERs and verifiable and in accordance with applicable CDM requirements;

- The actual monitoring system and procedures comply with the monitoring systems and procedures described in the monitoring plan and approved methodology;

- The data recorded and reported are transparent and as per the monitoring methodology.

1.2 Scope

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

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

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

1.3 Project Activity and Description

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

1.3.1 General Description:

The project activity consists of the installation of 25 WTGs with a unit capacity of 0.8 MW, resulting in total capacity of 20 MW. The purpose of the project activity is to generate electricity from renewable wind energy and exports to the NEWNE (earlier called as Western regional grid) grid, thereby leading to the reduction of GHG emissions by displacing the equivalent amount of electricity which would have been generated predominantly from fossil fuel fired power projects connected to NEWNE grid.

1.3.2. Project Verification Histroy:

Essential events since the registration of the project are presented in the following Table

S.no	Item	Year (dd/mm/yyyy)	Status
1	**Date of registration**	14/12/2010	Registered
2	**Start date of crediting period**	14/12/2010 – 13/12/2020	As per registered PDD, UNFCCC website
3	**1st Monitoring period**	14/12/2010 – 31/07/2011	Completed and CERs issued
4	**Request for revision of / deviation from the monitoring plan**	Not applicable	-

1.3.3 Parties and Project Participants:

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

Characteristics	Party	Project Participant
Host Party	Government of India	Enercon (India) Limited
Annex I Country	Not applicable	Not applicable

1.3.4 Project Location:

No.	Project Location
Host Country	India
Region/State/Province	Maharashtra
Project Location address city/town/community	Ahmednagar
Latitude	19^0 45' to $19^0$50'North (project area)
Longitude	73^0 45' to 73^0 55'4' East (project area)

Latitude Longitude of the WTGs are given in the section 3.1 below.

1.3.5 Period of Verification:

Monitoring Period Covered in this Report:	01/08/2011 to 31/03/2012

1.4 Verification Team:

A team of competency has been selected to perform the verification of the project.

Name	Role
Vinay Singh	Lead Assessor & Technical Area expert
Rajeev Singhal	Financial Expert

2. METHODOLOGY

2.1 General Approach

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

The checklist gives the assessment team a full understanding of:

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

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

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

2.2 Means of Verification

2.2.1 Desk Review

Verification was conducted using URS procedures in line with the requirements specified in the CDM M&P. the latest vesion of the CDM Validation and Verification Standard and relevant decisions of the COP/MOP and the CDM EB and applying the standard auditing techniques.

- The verfication consisted of the following three phases:
- Desk Review
- On-site Assesment
- The resolution of outstanding issues and the issuance of the final verification report and certification.

Document References:

/1/	(a) Enercon (India) Limited: CDM-PDD for the project activity "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra", version 04 of 12/04/2010, http://cdm.unfccc.int/Projects/DB/DNV-CUK1279516994.31/view (b) Revised CDM-PDD, version 05 dated 19/09/2012
/2/	Enercon (India) Limited: Monitoring Report for the project activity "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra", version 01 of 14/06/2012 and version 02 of 18/06/2012 and version 03 dated 06/08/2012, version 04 dated 18/09/2012
/3/	Enercon (India) Limited: Emission reduction calculation sheet and Apportionment sheet version 01 dated 14/06/2012, version 02 dated 20/09/2012
/4/	DNV: Validation report no 2009-0327, revision no. 05, of 30/06/2010
/5/	KBS: 1st Verification & Certification Report, Ref. No: CDM.11.VER.173.MP01, version no. 01, dated 17/01/2012
/6/	CDM Executive Board: Approved consolidated baseline and monitoring methodology ACM0002 – "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 11, of 12/02/2010
/7/	CDM Executive Board: Validation and Verification Standard, version 2 of 25/11/2011, EB 65 Annex 4
/8/	CDM Executive Board: Guidelines for completing the monitoring report form (CDM-MR), version 02, EB 66, Annex 20 of 02/03/2012
/9/	Calibration Certificates: Main meters a) MSEDCL: Meter No. 04862979, Ref. No. EE/TD/Nashik/Tech/No 00934, dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik b) MSEDCL: Meter No. 04862986, Ref. No. EE/TD/Nashik/Tech/No 00945, dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik c) MSEDCL: Meter No. 04862984, Ref. No. EE/TD/Nashik/Tech/No 00943, dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik d) MSEDCL: Meter No. 04862987, Ref. No. EE/TD/Nashik/Tech/No 00948, dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik Check Meters a) MSEDCL: Meter No. 04961781, Ref. No. EE/TD/Nashik/Tech/No 00946, dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik b) MSEDCL: Meter No. 04862988, Ref. No. EE/TD/Nashik/Tech/No 00944, dated 30/07/2011,

	issued by Executive Engineer, MSEDCL Nashik c) MSEDCL: Meter No. 05126137, Ref. No. EE/TD/Nashik/Tech/No 00942 , dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik d) MSEDCL: Meter No. 04862982, Ref. No. EE/TD/Nashik/Tech/No 00949 , dated 30/07/2011, issued by Executive Engineer, MSEDCL Nashik
/10/	MSEDCL: Monthly Credit Notes in Respect of M/s Enercon(I) Ltd from the period Aug. 2011 to Mar. 2012
/11/	ENERCON (India) Limited: Invoices raised to MSEDCL, for the period Aug. 2011 to Mar. 2012
/12/	Yadav Measurements Pvt. Ltd.(NABL Accredited Calibration Laboratory No. C-035): Certificate of Calibration for LCS Electronic Meter (Static Energy Meter) for 25 WTGs ,dated 01/11/2011
/13/	MAHA VITRAN: Apportioned "Units Sold to MSEDCL", for each WTGs of the project activity from the period Aug. 2012 to Mar. 2012
/14/	Enercon India: Training Programme on Operation and Maintenance of the Wind Turbine Generators (WTGs) of Enercon Wind Farms, between 24/08/2008 to 09/02/2009 and 08/08/2011 to 11/11/2011
/15/	The Germanischer Llyod Certification: ISO 9001:2008 to ENERCON India Limited dated 08/02/2010 valid till 08/02/2013
/16/	CA Certified- AXIS BANK STATEMENT: Transaction details on the payment made by MSEDCL to M/s Enercon Wind Farms (Sai) Private Limited, for the net electricity supplied by Enercon (India) Limited for the monitoring period August 2011 to March 2012
/17/	MSEDCL: Commissioning certificates of Wind Energy Generators, commissioning date 28 February 2007, 13 September 2008, 24 September 2008, 4 December 2008, 11 February 2009, 26 February 2009 & 17 March 2009
/18/	Power purchase agreement signed for the project activity dated 21 May 2007, 3 August 2008, 1 October 2008, 10 December 2008, 17 March 2009 & 30 March 2009
/19/	Ministry of Power (Gov. of India) - "CO_2 Baseline Database for Indian Power Sector", version 2, dated June 2007, http://www.cea.nic.in/reports/planning/cdm_co2/user_guide_ver2.pdf (Language-English, retrieved on 11/07/2012)
/20/	CDM Executive Board: Clean Development Mechanism Project Standard, version 01.0 of 25/11/2011, EB 65 Annex 5
/21/	CDM Executive Board: Clean Development Mechanism Project Cycle Procedure, version 2 of 02/03/2012, EB 66 Annex 64
/22/	Central Monitoring System Archived Data (current monitoring period) maintained by Enercon (India) Limited, verified during the site inspection, submitted on 21/07/2012

2.2.2 Site Visits and Follow up Interviews

As part of the verification, the following on-site inspections have been performed by Vinay Singh:

Location: Ahmednagar, Maharashtra

Date: 20/07/2012 to 21/07/2012		
Coverage and Topics:	**Sources/Persons Interviewed**	**Designation, Organization**
Operational data, O&M, Calibration, Calculation of ERs, CDM requirements	Ms. Mallika Bose	Deputy Manager – CDM, Enercon (India) Ltd.
Data collection & Apportioning O&M, QA/QC procedures	Mr. Prashant B. Patil	Senior Engineer (Supervisor), Enercon (India) Ltd.
	Mr. Ulkesh	Operation & Maintenance Staff
	Mr. Neeraj Sahani	Operation & Maintenance Staff

2.3 Resolution of Clarifications, Corrective and Forward Action Requests:

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

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

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

I. Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;

II. Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;

III. Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;

IV. Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants

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

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

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

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

All CARs, CLs and FARs for this verification period are included in the Appendix I of this report.

Verification Checklist Table:

This Verification Report consists of tables in the Appendix I consisting of the different columns in which are described as in below tables:

Table 1 – Verification Requirements for the project: for Clean Development Mechanism (CDM) Project Activities (Appropriate Sections need to be entered from the CDM VVS)

Checklist Questions	**Ref.**	**MoV**	**Verification Assessment**	**Conclusion**
The Checklist-Question in table 1 are based on the CDM VVS.	Refers to the documents where the answer to the Requirements checklist questions are found	Explain how conformance with Checklist questions are investigated. Examples are document review (DR), interview or follow up actions, cross checking with publicly available or other authentic document.	The discussion on how the conclusion was arrived at and conclusion on compliance with Checklist Question.	For CAR, CL see definitions above. In the event of adequate information/evidence Ok is used to demonstrated compliance with CDM Requirements.

Table 2 - Resolution of Corrective Action Requests and Clarification:

<table>
<tr><td colspan="2" rowspan="2">Summary of Findings</td><td>CAR</td><td>CL</td><td colspan="2">FARs</td></tr>
<tr><td>Total Number of CARs</td><td>Total Number of CLs</td><td colspan="2">Total Number of FARs</td></tr>
<tr><td rowspan="2"><u>Date:</u></td><td></td><td colspan="2" rowspan="2"><u>Raised by:</u></td><td colspan="2" rowspan="2">Name of the assessment team member</td></tr>
<tr><td>DD/MM/YYYY</td></tr>
<tr><td rowspan="3"><u>Type of Finding</u></td><td></td><td rowspan="3"><u>S. No. of Finding</u></td><td rowspan="3">----</td><td></td><td rowspan="3">Reference of finding for example-page no. of MR</td></tr>
<tr><td>CAR/ CL</td><td>Reference</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="3">Details of the <u>Finding</u>:</td><td colspan="3">DD/MM/YYYY</td></tr>
</table>

Findings for not meeting the Requirements/Checklist questions as per table 1 or 2 as applicable.	
Project Participant Response	DD/MM/YYYY
(Response provided by the PP)	
Documents/ information provided by the Project Participant:	
(Evidences/ documents provided by Project participant)	
Reasoning for acceptance or non-acceptance:	DD/MM/YYYY
(Reasoning provided by Lead Assessor/ Assessor for acceptance or non-acceptance of the response provided by the project participant.	
Close out by Lead Assessor	DD/MM/YYYY

Table 3 - Forward Action Requests (if no FAR the table 3 is deleted):

Forward Action Request	Reference to table 2	Response by project participants and validation opinion
The FAR is raised in table 2 is repeated here	Reference to checklist question	Response by project participant on how FAR will be addressed and opinion of validation team.

2.4 Internal Quality Control

The Verification Report and its respective versions have underwent an Internal Quality Control through an Independent Technical Review (ITR).

ITR is an independent process performed to examine that the process of verification has been carried out in conformance with the requirements of verification scheme as well as URS verification procedures and the conclusion is justified. The technical review is performed by designated competent person, Independent Technical Reviewer, in accordance with URS qualification scheme for CDM validation and verification. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

Technical Review Team

Name	Role
Naresh Badhwar	Technical Reviewer and Technical Area Expert, TA 1.2

3. VERIFICATION CONCLUSIONS

3.1 Project Implementation

The project has been registered as CDM activity on 14/12/2010 having the reference number 3854 (see: http://cdm.unfccc.int/Projects/DB/DNV-CUK1279516994.31/view) /1(a)/.

The project activity is implemented in accordance with the approved consolidated baseline and monitoring methodology ACM0002 Version 11 /06/. The project activity meets the following criteria :

- The Project is grid connected renewable power generation project activity
- The Project represents electricity capacity additions from wind sources
- The Project does not involve switching from fossil fuel to renewable energy at the site of project activity since the Project is green-field electricity generation capacities from wind sources at sites where there was no electricity generation source prior to the Project, and

This is the second monitoring period (01/08/2011 to 31/03/2012) of the project activity. The project has been implemented as per the registered PDD /1(a)/. As per the registered PDD version 04 dated 12/04/2010, the project activity consists of the installation of 25 WTGs with a unit capacity of 0.8 MW.

The first monitoring period of the project activity was from 14/12/2010 to 31/07/2011. The project has been implemented as per the registered PDD and the same has been verified during the site inspection and found to be correct.The capacity of the WTGs are same as per the registered PDD.

The commissioning date and the unique identification number of each WTGs are given below in the table.

S.NO.	WTG Location no.	Unique Identification No.	Date of Commissioning	Latitude	Longitude
1	523	EWFSPL -01	17 March, 2009	19.6264	73.7842
2	524	EWFSPL -02	26 February, 2009	19.6275	73.7838
3	525	EWFSPL -03	26 February, 2009	19.6286	73.7834
4	526	EWFSPL -04	11 February, 2009	19.6296	73.7830
5	527	EWFSPL -05	11 February, 2009	19.6307	73.7829
6	79	EWFSPL -06	22 May, 2008	19.7480	73.8370
7	529	EWFSPL -07	26 February, 2009	19.6328	73.7829
8	530	EWFSPL -08	17 March, 2009	19.6341	73.7836
9	504	EWFSPL -09	17 March, 2009	19.6076	73.7888
10	506	EWFSPL -10	26 February, 2009	19.6087	73.7888
11	507	EWFSPL -11	11 February, 2009	19.6104	73.7887
12	521	EWFSPL -12	4 December, 2008	19.6244	73.7849
13	510	EWFSPL -13	4 December, 2008	19.6133	73.7888

S.NO.	WTG Location no.	Unique Identification No.	Date of Commissioning	Latitude	Longitude
14	512	EWFSPL -14	4 December, 2008	19.6155	73.7889
15	513	EWFSPL -15	13 September, 2008	19.6166	73.7887
16	514	EWFSPL -16	13 September, 2008	19.6176	73.7884
17	35	EWFSPL -17	28 February, 2007	19.6604	73.8144
18	36	EWFSPL -18	28 February, 2007	19.6617	73.8145
19	37	EWFSPL -19	28 February, 2007	19.6630	73.8146
20	38	EWFSPL -20	28 February, 2007	19.6642	73.8144
21	39	EWFSPL -21	28 February, 2007	19.6655	73.8141
22	516	EWFSPL -22	13 September, 2008	19.6196	73.7877
23	517	EWFSPL -23	24 September, 2008	19.6205	73.7871
24	518	EWFSPL -24	4 December, 2008	19.6216	73.7866
25	519	EWFSPL -25	4 December, 2008	19.6224	73.7859

Project was implemented and equipment installed as described in the registered PDD.

3.2 Post registration changes

3.2.1 Temporary deviations from registered monitoring plan or applied methodology

Not applicable as there are no deviations from registered monitoring plan or applied methodlogy.

3.2.2 Corrections

Following are the corrections from the registered PDD which do not require prior approval by the Board as per para 1 of Appendix 1 of CDM Project Standard,EB 65, Annex 5 /20/:

a) In section B 6.2 of registered PDD, EF cm,y is mentioned as EF om,y and combined margin emission factor is mentioned as build margin emission factor

b) In section B 7.1 of registered PDD, $EG_{JMR,Export}$ is mentioned as $E_{JMR,Export}$

c) In section B 7.1 of registered PDD, $EG_{JMR,Import}$ is mentioned as $E_{JMR,Import}$

PP has made these corrections in the revised PDD /1b/ and also the same has been corrected in the Monitoring report. The verification team has accepted these changes as these are typographical errors that do not effect design of the project. In line with para 134 of Project Cycle Procedure (PCP) EB 66, Annex 64 /21/, these changes in revised PDD are submitted for acceptance of the Board as a part of request for issuance.

The correct notation of combined emission factor is $EF_{cm,y}$ and the correct notation of Electricity exported, as recorded by the main meter at the MSEDCL substation is $EG_{JMR,Export}$ and correct notation of Electricity imported, as recorded by the main meter at the MSEDCL substation is $EG_{JMR,Import}$. In line with para 259 of VVS, DOE confirms that the corrected information reflects actual project information.

3.2.3 Permanent changes from registered monitoring plan or applied methodology

In the registered PDD, the accuracy of the main and check meter at sub-station is mentioned as 0.5 and it is in line with the PPA that has been signed. During site inspection it is found that the accuracy class of both main & check meter is 0.2. Accordingly, the accuracy class for the meters has been mentioned as 0.2 in the monitoring report and the revised PDD. PP has revised the PDD to incorporate the change in accuracy of main and check meter at sub-station. This has no impact on the monitoring procedures as the meters installed are of higher accuracy and leads to a more accurate and conservative approach. Further, as per para 5(b) of Appendix 1 of CDM Project Standard,EB 65, Annex 5, changes in accuracy of meter falls under permanent changes to monitoring plan which do not require prior approval by the Board. Also, there is no requirement of any adjustment of the monitoring equipment, if the installed one is of higher accuracy class compared to the one mentioned in the registered PDD/1a/. Further, the change of the meter is beyond the control of the project participant as it is carried out by state utility. The accuracy of meter was changed during implementation of project and the same issue was identified during the first verification also. The change in accuracy of meter was accepted by the verification team as they lead to more accurate measurements. In line with para 134 of Project Cycle Procedure (PCP) EB 66, Annex 64, these changes in revised PDD are submitted for acceptance of the Board as a part of request for issuance.

The permanent changes were identified during verification. In line with para 267 of VVS, verification team confirms that these permanent change are in line with approved guidance from the Board regarding the permanent changes from the provisions of the registered monitoring plan. As per para 5 (c) of Appendix I of Project Standard (EB 65, Annex 5), changes in accuracy of meter fall under the category of permanent Changes from the registered monitoring plan that do not require prior approval. As the accuracy of meter has been changed from 0.5 to 0.2 which is more accurate, there is no requirement of any adjustment, hence the changes were accepted by the verification team.

3.2.4 Changes to project design of registered project activity

Not applicable as there are no changes to project design.

3.2.5 Changes to start date of crediting period

Not applicable as there are no changes to start date of crediting period.

3.3 Remaining Issues, CARs, FARs from Previous Validation or Verification

There are no FAR from the previous validation & verification, however the correction to the PDD are mentioned in the section 3.2.2 and permanent changes from the registered monitoring plan are mentioned in section 3.2.3 above.

3.4 Compliance of the monitoring plan with the monitoring methodology.

As per the applied methodology ACM0002, version 11 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", the monitoring data should be archived electronically and be kept at least for 2 years after the end of the last crediting period. As per the monitoring plan of the registered PDD/1a/, the electricity generated through the WTGs is measured through a two step procedure wherein the first metering is carried out at the electronic meter inbuilt in the WTGs controller panel. The monitoring of all these wind turbines is done from a central monitoring station (CMS).

The second metering is carried out at grid interconnection point (sub-station) wherein the Joint Meter Reading (JMR) is recorded on first day of every month in presence of the representatives of the project

participant& the state electricity utility (MSEDCL). Then MSEDCL issues a monthly credit report (also called as JMR) to the PP. This monthly credit report is used for calculation of the amount of electricity supplied to the grid against which the state utility makes the payment to the project participant. The compliance of the monitoring plan has been verified with the monthly credit report, invoices raised to the state utility and payment made against it and has been cross verified during the site inspection.

Corresponding to the paragraph 229 to 232 of VVS version 2 /7/, verification team has verified the validated monitoring plan, including the data and parameters required to be monitored, measurement procedures, monitoring frequency and QA/QC procedures as described in the registered PDD/1a/, and is able to confirm that the monitoring plan is in accordance with the approved methodology applied by the registered CDM project activity.

The verification team has checked the monitoring plan with the registered PDD and monitoring plan in the registered PDD is as per the applied methodology ACM 0002 version 11.

3.5 Compliance of Monitoring activities with the monitoring plan

There is no deviation in the implemented monitoring plan from the registered PDD and the monitoring activities are in accordance with the monitoring plan.

3.5.1 Verification of monitoring of parameters

Monitoring of reductions in GHG emissions to result from the registered project have been implemented in accordance with the monitoring plan contained in the registered PDD /1(a)/ The monitoring mechanism, including the data collection system, is effective and reliable.

The monitored parameters are mentioned below:

Table 1: **EGy**

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	EGy,	The parameter is in accordance with the registered PDD.
Description	Net electricity supplied to the grid by the machines of the project	The same has been cross verified during the site visit and found to be correct. The description is as per the registered PDD/1a/.
Value of Monitored Parameter	19,872 MWh	The method of calculation of net electricity is in compliance with the monitoring plan of the registered PDD. The verification team has checked the calculations and they are found to be correct.
Measured/Calculated /Default	This parameter is calculated as described in the section 3.7.1 below.	The calculation is as per the registered PDD.
Source of data	Source of data is Credit note/JMR /10/. The value is calculated as the difference between EG_{Export} and EG_{Import} for the project activity WTGs.	The source of data has been checked by the verification team and it is in line with the registered PDD and as observed during site inspection.

	Please refer EG_{Export} and EG_{Import} and section 3.7.1 for details.	
Monitoring equipment	The parameter is calculated parameter, however, the monitoring equipments used are electronic tri-vector energy meters as installed at MSEDCL sub-station Panchpatta site, these meters provide import and export of electricity supplied by the all the WTGs connected to the particular feeder. On the basis of the substation meter reading and LCS reading of individual WEG, net electricity is calculated.	The details are as per the registered PDD/1a/ and as observed during site inspection.
Measuring/Reading/ Recording frequency	Calculated on monthly basis..	The calculation frequency is as per the registered PDD and as observed during site.
Calculation method (if applicable)	EGy = EG export – EG import, please refer section 3.7.1 below.	The calculation method is in line with the monitoring plan of the registered PDD. The verification team has checked the calculations and they are found to be correct.
QA/QC procedures	The calibration of the substation meters (main and check) /9/ and LCS meter is carried out annually /12/.QA/QC procedures have been implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA). The data (electricity supplied to the grid) is archived electronically as well as on paper. The data will be kept for the period up to two years after the completion of the crediting period.	The value of electricity supplied to the grid mentioned in the monthly credit note (JMR) has been cross checked with the invoices /11/ also against payments received from the State Utility and found to be correct. This is in line with the registered PDD. Data archiving details have also been checked by the verification team and found to be in line with the monitoring plan in registered PDD.

Table 2: $EG_{JMR,Export}$

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	$EG_{JMR,Export}$	The parameter is in accordance with the registered PDD.
Description	Electricity Export recorded at main meters connected to the feeders at the MSEDCL substation	The same has been cross verified during the site visit and found to be correct. The description is as per the registered PDD.

Value of Monitored Parameter	39,821 MWh	The paramter is in line with the registered PDD and MR. The verification team has cross-checked the values with the credit note/JMR and it is found to be correct.
Measured/Calculated /Default	This is the measured parameter.	The measurement is continuous and the same has been cross verified with the monthly recorded value in the Credit Notes/JMR). The same has been found be correct during the site inspection and in line with the registered PDD and MR /2/.
Source of data	The source of data is Credit Note/JMR.	The credit notes/JMR /10/ have been verified and found to be consistent with the reported values. The verification team confirms the data collection procedures are correctly indicated in the MR Version 04.
Monitoring equipment	The monitoring equipments used are electronic tri-vector energy meters. Please refer section 3.5.3 below for details.	Monitoring equipments were checked by the verification team during the site visit. Refer section 3.2.3 above for further details.
Measuring/Reading/ Recording frequency	Measurement is continous and it is monthly recorded.	The verification team cross checked the Credit Notes/JMR and observed that the data is recorded monthly and measured continuously as observed during site visit.
Calculation method (if applicable)	Not applicable	Not applicable
QA/QC procedures	QA/QC procedures have been implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA) /18/. The calibration of the substation meters (main and check) is carried out annually /9/. The data (electricity supplied to the grid) is archived electronically as well as on paper. The data will be kept for the period up to two years after the completion of the crediting period.	The verification team checked the calibration certificate of main & check meter and no gaps were found.

Table 3: $EG_{JMR,Import}$

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	$EG_{JMR,Import}$	The parameter is in accordance with the registered PDD.
Description	Electricity import, recorded at main meters, connected to the feeders at MSEDCL sub-station	The same has been cross verified during the site visit and found to be correct, the description is as per the registered PDD.
Value of Monitored Parameter	42.40 MWh	The paramter is in line with the registered PDD /1a/ and MR. /2/ The verification team has cross-chceked the values with the credit note/JMR and it is found to be correct.
Measured/Calculated /Default	This is the measured parameter.	It is measured continuously and recorded monthly in the Credit Note/JMR The same has been found be correct during the site inspection and in line with the registered PDD and MR.
Source of data	The source of data is credit note/ JMR.	The credit notes/JMR /10/ have been verified and found to be consistent with the reported values. The verification team confirms the data collection procedures are correctly indicated in the MR Version 04 /2/.
Monitoring equipment	The monitoring equipments used are electronic tri-vector energy meters. Please refer section 3.5.3 belwo for details.	Monitoring equipments were checked by the verification team during the site visit. Refer section 3.2.3 above for further details
Measuring/Reading/ Recording frequency	Measurement is continous and it is monthly recorded.	The verification team cross checked the Credit Notes/JMR and observed that the data is recored monthly and measured continuously as observed during site visit.
Calculation method (if applicable)	Not applicable	Not applicable
QA/QC procedures	QA/QC procedures have been implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA) /18/. The calibration of the	The verification team checked the calibration certificate of main & check meter and no gaps were found

	substation meters (main and check) is carried out annually /9/. The data (electricity supplied to the grid) is archived electronically as well as on paper. The data will be kept for the period up to two years after the completion of the crediting period	

M

Table 4: Σ EG gross, y

y=0

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	M Σ EG gross, y y=0	The parameter is in accordance with the registered PDD.
Description	Summation of $EG_{gross, y}$ is the electricity generated from individual wind turbines other than the project activity connected to common MSEDCL meter measured through its panel.	The same has been cross verified during the site visit and found to be correct. It is in line with the registered PDD.
Value of Monitored Parameter	20,487 MWh	It is is in compliance with the monitoring plan of the registered PDD. The verification team has cross-chceked the value and it is found to be correct.
Measured/Calculated /Default	It is the measured parameter.The gross generation at the WTGs (other than the project activity) but connected to the same feeder (to which the project activity WTGs are connected) is measured continuously and daily and monthly recorded at CMS /22/ for each WTG.	The same was verified during ths site inspection and found to be correct.
Source of data	The monitored data is recorded at the CMS /22/ and archived therein. Generation value from the WTG panels (electronically)	The verification team confirms the data collection procedures are correctly indicated in the MR Version 04.

Monitoring equipment	LCS Electronic Meter in-built in the Controller Panel of WTGs.	During the site inspection the verification team verified the LCS meter and found it to be operational. Refer section 3.5.3 of this report for monitoring equipment details.
Measuring/Reading/ Recording frequency	Measurement is continous and daily and it is monthly recorded at CMS for each WTG.	The same was verified during the site inspection and found to be correct.
Calculation method (if applicable)	Individually monitored for wind turbines from the WTG panels and can be aggregated to the arrive at the value	The same was verified during the site inspection and found to be correct and in line with the registered PDD & MR..
QA/QC procedures	The monitored data is archived at CMS in accordance with the QA/QC procedures defined in the registered PDD. The LCS meters are calibrated annually.	The monitoring & QA/QC procedures were verified during the site inspection.There was delay in calibration of LCS meter and further details are mentioned below in section 3.7.1.

N

Table 5: Σ EG gross, y

y=0

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	N Σ EG gross, y y=0	The parameter is in accordance with the registered PDD.
Description	Summation of $EG_{gross, y}$ is the electricity generated from wind turbines of the project activity measured through WTGs controller panel	The same has been cross verified during the site visit and found to be correct. . It is in line with the registered PDD.
Value of Monitored Parameter	20,527 MWh	It is in compliance with the monitoring plan of the registered PDD. The verification team has cross-chceked the value and it is found to be correct.
Measured/Calculated /Default	It is the measured parameter. The gross generation at the WTGs (project activity) but connected to	The same was verified during ths site inspection and found to be correct.

	the same feeder (to which other WTGs are connected) is measured continuously and daily and monthly recorded at CMS /22/ for each WTG.	
Source of data	The monitored data is recorded at the CMS /22/ and archived therein. Generation value from the WTG panels (electronically)	The verification team confirms the data collection procedures are correctly indicated in the MR Version 04.
Monitoring equipment	LCS Electronic Meter in-built in the Controller Panel of WTGs.	During the site inspection the verification team verified the LCS meter and found it to be operational. Refer section 3.5.3 of this report for monitoring equipment details.
Measuring/Reading/ Recording frequency	Measurement is continous and daily and it is monthly recorded at CMS for each WTG.	The same was verified during the site inspection and found to be correct.
Calculation method (if applicable)	Individually monitored for wind turbines from the WTG panels and can be aggregated to the arrive at the value	The same was verified during the site inspection and found to be correct and in with the registered PDD & MR.
QA/QC procedures	The monitored data is archived at CMS in accordance with the QA/QC procedures defined in the registered PDD. The LCS meters are calibrated annually.	The monitoring & QA/QC procedures were verified during the site inspection. There was delay in calibration of LCS meter and further details are mentioned below in section 3.7.1.

Table 6: EG $_{Export}$

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	EG $_{Export}$	The parameter is in accordance with the registered PDD.
Description	Electricity exported by the project activity to the grid	The same has been cross verified during the site visit and found to be correct and is in line with the registered PDD and MR.
Value of Monitored Parameter	19,897 MWh	The verification team has cross checked the value which has been calculated using credit note and LCS generation data and found to be correct.
Measured/Calculated /Default	It is a calculated value using credit note and LCS generation data.	The same was verified during ths site inspection and found to be correct.
Source of data	The value is calculated by apportioning using credit note and	The calculations have been checked and found to be correct.

	LCS generation data.	
Monitoring equipment	The value is calculated parameter and detail is given in section 3.7.1 below.	The calculations have been checked and found to be correct.
Measuring/Reading/ Recording frequency	The export is measured continuously at sub station main and check meters at each feeder. The values are calculated on monthly basis.	The calculation frequency has been checked and found to be correct.
Calculation method (if applicable)	Calculated as per empirical formula in the registered PDD and MR. The details are given in section 3.7.1. below.	The calculation method has been checked and found to be correct.
QA/QC procedures	This is a calculated parameter, the data is calculated using measured value by meter at sub-station and LCS meter for which the details are mentioned in tables above. The data will be kept for the period up to two years after the completion of the crediting period	The calculation has been checked and found to be correct. The details of monitoring equipment are given in section 3.5.3. below.

Table 7: EG $_{Import}$

	Implementation of the project	**Conclusion on the compliance of the implementation with the monitoring plan**
Data/Parameter	EG $_{Import}$	The parameter is in accordance with the registered PDD.
Description	The electricity imported by project activity from the grid	The same has been cross verified during the site visit and found to be correct and is in line with the registered PDD and MR.
Value of Monitored Parameter	24.85 MWh	The verification team has cross checked the value which has been calculated using credit note and LCS generation data and found to be correct.
Measured/Calculated /Default	It is a calculated value using credit note and LCS generation data.	The same was verified during ths site inspection and found to be correct.
Source of data	The value is calculated by apportioning using credit note and LCS generation data.	The calculations have been checked and found to be correct.
Monitoring equipment	The value is calculated parameter and detail is given in section 3.7.1	The calculations have been checked and

	below.	found to be correct.
Measuring/Reading/ Recording frequency	The import is measured continuously at sub station main and check meters at each feeder. The values are calculated on monthly monthly.	The calculation frequency has been checked and found to be correct.
Calculation method (if applicable)	Calculated as per empirical formula in the registered PDD and MR. The details are given in section 3.7.1 below.	The calculation method has been checked and found to be correct .
QA/QC procedures	This is a calculated parameter, the data is calculated using measured value by meter at sub-station and LCS meter for which the details are mentioned in tables above. The data will be kept for the period up to two years after the completion of the crediting period	The calculation has been checked and found to be correct. The details of monitoring equipment are provided in section 3.5.3. of this report.

The verification team on-site checked the meters and verified the calibration records. All meters were properly configured and checked annually and are within accuracy level required in the registered PDD /1(a)/. Corresponding to the paragraph 235 of VVS version 2 /7/, URS can confirm that:

- The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD
- All parameters stated in the monitoring plan of the registered PDD have been sufficiently monitored and correctly listed. The monitored data for required parameters have been verified and found complete and consistent by checking the whole procedure for information aggregation.

3.5.2 Verification of implementation of sampling plan

Not applicable, as no sampling was involved in the verification of the project activity.

3.5.3 Accuracy of Equipment

The URS verified the accuracy and monitoring of equipment used in the project activity by checking the calibration report of the meters, monitoring procedures and cross verified the same during the site inspection and confirms that:

(i) Monitoring results are consistently recorded as per approved frequency;

(ii) Quality assurance and quality control procedures

In line with the para 234 of VVS, the URS checked the monitoring equipment and the details of the meters are given below:

Table 8: Main Meter

Monitoring equipment	Main Meter	Main Meter	Main Meter	Main Meter
Monitoring parameter	$EG_{JMR, Export,}$ $EG_{JMR, Import}$	$EG_{JMR, Export,}$ $EG_{JMR, Import}$	$EG_{JMR, Export,}$ $EG_{JMR, Import}$	$EG_{JMR, Export,}$ $EG_{JMR, Import}$
S.No.	4862979	4862986	4862984	4862987
Make	Elster	Elster	Elster	Elster
Accuracy	0.2	0.2	0.2	0.2
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	14/06/2011	14/06/2011	14/06/2011	14/06/2011
Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	No	No	No	No
Calibration Entity	MSEDCL	MSEDCL	MSEDCL	MSEDCL

Table 9: Check Meter

Monitoring equipment	Check Meter	Check Meter	Check Meter	Check Meter
Monitoring parameter	$EG_{JMR, Export,}$ $EG_{JMR, Import}$	$EG_{JMR, Export,}$ $EG_{JMR, Import}$	$EG_{JMR, Export,}$ $EG_{JMR, Import}$	$EG_{JMR, Export,}$ $EG_{JMR, Import}$
S.No.	4961781	4862988	5126137	4862982
Make	Elster	Elster	Elster	Elster
Accuracy	0.2	0.2	0.2	0.2
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	14/06/2011	14/06/2011	14/06/2011	14/06/2011
Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	No	No	No	No
Calibration Entity	MSEDCL	MSEDCL	MSEDCL	MSEDCL

In the registered PDD, the accuracy of the meter is 0.5 and it is in line with the PPA that has been signed. During site inspection it is found that the accuracy class of both main & check meter is 0.2. These permanent changes are mentioned in detail in section 3.2.3 above.

Table 10: LCS Meter Details

Monitoring equipment	LCS METER	LCS METER	LCS METER	LCS METER
Monitoring parameter	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0
S.No.	01183959	01215610	475537	475553
Make	Elster	Elster	NZR	NZR
Accuracy	0.5	0.5	0.5	0.5
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	22/10/2011	22/10/2011	22/10/2011	22/10/2011
Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)
Calibration Entity	YMPL	YMPL	YMPL	YMPL

Table 11: LCS Meter Details

Monitoring equipment	LCS METER	LCS METER	LCS METER	LCS METER
Monitoring parameter	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0
S.No.	475728	475533	01184004	01215541
Make	NZR	NZR	ELSTER	ELSTER

Accuracy	0.5	0.5	0.5	0.5
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	22/10/2011	21/10/2011	22/10/2011	22/10/2011
Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)
Calibration Entity	YMPL	YMPL	YMPL	YMPL

Table 12: LCS Meter Details

Monitoring equipment	LCS METER	LCS METER	LCS METER	LCS METER
Monitoring parameter	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0
S.No.	01215571	01215575	475489	475521
Make	ELSTER	ELSTER	NZR	NZR
Accuracy	0.5	0.5	0.5	0.5
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	22/10/2011	22/10/2011	22/10/2011	22/10/2011
Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)
Calibration Entity	YMPL	YMPL	YMPL	YMPL

Table 13: LCS Meter Details

Monitoring equipment	LCS METER	LCS METER	LCS METER	LCS METER
Monitoring parameter	M Σ EG gross, y y=0	M Σ EG gross, y y=0	M Σ EG gross, y y=0	M Σ EG gross, y y=0

	N Σ EG gross, y y=0	N Σ EG gross, y y=0	N Σ EG gross, y y=0	N Σ EG gross, y y=0
S.No.	475523	475541	475760	475543
Make	NZR	NZR	NZR	NZR
Accuracy	0.5	0.5	0.5	0.5
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	22/10/2011	22/10/2011	22/10/2011	22/10/2011
Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)
Calibration Entity	YMPL	YMPL	YMPL	YMPL

Table 14:LCS Meter Details

Monitoring equipment	LCS METER	LCS METER	LCS METER	LCS METER
Monitoring parameter	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0
S.No.	475519	475094	475558	475560
Make	NZR	NZR	NZR	NZR
Accuracy	0.5	0.5	0.5	0.5
Calibration frequency requirement	Annual	Annual	Annual	Annual
Calibration date	21/10/2011	21/10/2011	21/10/2011	21/10/2011

Validity	1 year	1 year	1 year	1 year
Are there delays in calibration?	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)
Calibration Entity	YMPL	YMPL	YMPL	YMPL

Table 15:LCS Meter Details

Monitoring equipment	LCS METER	LCS METER	LCS METER	LCS METER	LCS METER
Monitoring parameter	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0	M Σ EG gross, y y=0 N Σ EG gross, y y=0
S.No.	475095	475545	475294	475536	475709
Make	NZR	NZR	NZR	NZR	NZR
Accuracy	0.5	0.5	0.5	0.5	0.5
Calibration frequency requirement	Annual	Annual	Annual	Annual	Annual
Calibration date	21/10/2011	22/10/2011	22/10/2011	22/10/2011	22/10/2011
Validity	1 year	1 year	1 year	1 year	1 year
Are there delays in calibration?	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)	Yes (delay of almost 3 months)
Calibration Entity	YMPL	YMPL	YMPL	YMPL	YMPL

The calibration of LCS meter was delayed and the maximum error of 0.64 % was observed and the same was applied in calculating ER as described in section 3.7.1 below.

3.5.4. Management and operational System and Quality Assurance

Quality Management procedures for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel in the framework of this CDM project activity

have been defined. Enercon (India) Limited has training centre for training the person involved in the O&M of the project activity. On basis of site verification and document review (training record the verification team confirms that the CDM responsibility allocated is followed at the site and is the one as described in the registered PDD. Quality assurance procedures are in place and PP conducts the third party audit to determine whether data is compiled accurately as per the monitoring plan. Staffs are made aware of the quality assurance procedures. The same has been cross checked with ISO certification (ISO 9001:2008) /15/ of Enercon (India) Limited.

The operation and maintenance of the project activity is carried out by the Enercon(India) Limited O&M team. During the site visit, the team has interviewed the site personnel, who are involved in data collection, monitoring and archiving. The team found that these people are competent enough to carry out their duties and confirmed that organization structure followed as defined in the monitoring plan.

The site visit confirmed that monitoring and reporting is carried out consistently and records are kept in a secure and consistent manner.

3.5.5 Quality of Evidence to determine the Emission Reductions:

The reported values, notation, units and sources in the monitoring report for all the monitoring parameters have being cross checked with the emission reduction sheet and with revised monitoring report. During verification, the data is cross verified with the reading mentioned in the Monitoring report, the procedure for data transfer and compilation was also verified and found in compliance with the requirement.

Furthermore, the cross checks have been performed during site inspection on the continuous operation of the monitoring equipment and procedures. The audit team verified on site data from the CMS, controller panel of the WTGs and electricity generation reports.

3.5.6 Data and Parameters fixed ex-ante:

Data/Parameter, Unit: $\mathbf{EF_{OM,y}}$, tCO_2e/MWh

	Discussion and verification assessment
Verified value	0.9985, Operating Margin Emission Factor of Western Regional Electricity Grid
Source of value	"CO_2 Baseline Database for Indian Power Sector", version 2, http://www.cea.nic.in/reports/planning/cdm_co2/user_guide_ver2.pdf
Justification	Consistent with registered PDD page 24 and defined fixed ante.

Data/Parameter, Unit: $\mathbf{EF_{BM,y}}$, tCO_2e/MWh

	Discussion and verification assessment
Verified value	0.6300, Build Margin Emission Factor of Western Regional Electricity Grid
Source of value	"CO_2 Baseline Database for Indian Power Sector", version 2, http://www.cea.nic.in/reports/planning/cdm_co2/user_guide_ver2.pdf
Justification	Consistent with registered PDD page 24 and defined fixed ante.

Data/Parameter, Unit: **$EF_{CM, y,}$** tCO_2e/MWh

	Discussion and verification assessment
Verified value	0.90641, Combined Margin Emission Factor of Western Regional Electricity Grid
Source of value	"CO_2 Baseline Database for Indian Power Sector", version 2, http://www.cea.nic.in/reports/planning/cdm_co2/user_guide_ver2.pdf
Justification	Consistent with registered PDD page 25 and defined fixed ante.

The verification team has verified the value with the Central Electricity Authority data base user guide version 2.0 /19/ and registered PDD /1a/ and found to it to be correct and consistent. Hence accepted the default value used in the project activity.

3.6 Compliance with the calibration frequency requirements for measuring instruments

The calibration frequency of main meter, check meter at sub-station and in built LCS meter are in line with the registered PDD and conducted annually at the frequency as specified by the monitoring plan of the registered PDD. Refer section 3.5.3. for calibration details of measuring instruments.In line with the para 243 of VVS, URS confirms that the calibration of main & check meter is carried out annually as per the frequency specified in the registered PDD. There was delay in calibration of LCS meter and maximum error was observed as 0.64% and the same was applied in calculating emission reduction. The details are mentioned in section 3.7.1 below.

3.7 Assesment of data and calculation of Greenhouse Gas emission reductions:

The start date of the this monitoring period is 01/08/2011, which is subsequent to the previous monitoring period of the project activity. The monitored period data to determine emission reductions have been used from 01/08/2011 to 31/03/2012. The verification team confirmed this through interactions with the project participant and that the recording of key parameters to determine emission reductions is done on monthly basis (full month basis, as monthly recording takes place on the last day of each month) and therefore the monitoring data is available on full month basis and not part of it.
In line with VVS Version 2 para 246 the data was available for monitoring period 01/08/2011 to 31/03/2012. There being no other project or leakage emissions for the project activity, the approach by PP was accepted.

3.7.1 Calculation of Emission Reductions:

Parameter	Reported Value	Verified Value
EGy	19,872 MWh	19,872 MWh
$EG_{JMR,Export}$	39,821 MWh	39,821 MWh
$EG_{JMR,Import}$	42.40 MWh	42.40 MWh
M Σ EG gross, y y=0	20,487 MWh	20,487 MWh

N Σ EG gross, y y=0	20,527 MWh	20,527 MWh
EG_{Export}	19,897 MWh	19,897 MWh
EG_{Import}	24.85 MWh	24.85 MWh

The critical parameter used for the determination of the Emission Reductions is the EGy.

The data pertaining to the above parameter are maintained in the identified records. All the data are in compliance with that stated in the Monitoring Report version 04 /2/.

As per the methodology ACM0002 Version 11 /06/ and the registered PDD /1a/, the emission reductions for the Project are calculated as the baseline emissions minus the project emissions and leakage. Hence, the emission reductions are determined by the following formula:

ERy = BEy – PEy – Ly

Where:
ERy = Emission reductions
BEy = Baseline emissions
PEy = Project emissions
Ly = Leakage emissions

In linewith the applied methodology, there are no project emissions and no leakages and review of the project implementation and operation, at site inspection the verification team established there are no project emissions and leakages associated with the project activity.

Consequently,

ERy = BEy

Baseline emissions

Baseline emissions in year y (tCO2/yr)

$BEy = EG_y * EF_y$

Where;

EGy is the net electricity supplied to the grid in year y and is applied directly from the credit note
EFy is the CO_2 emission factor of the grid = 0.90641 tCO_2e/ MWh; (fixed ex-ante)

Therefore, the net electricity supplied to the grid is calculated as follows:

EGy = $EG_{Export} – EG_{Import}$

EG_{export}, the electricity exported to the grid by the project activity is calculated as follows:

$$EG_{export} = \frac{EG_{JMR,\,export} \times \sum_{y=0}^{n} EG_{gross,\,y}}{\left(\sum_{y=0}^{n} EG_{gross,\,y} + \sum_{y=0}^{m} EG_{gross,\,y}\right)}$$

EG_{import}, the electricity drawn from the grid by the project activity is calculated as follows:

$$EG_{import} = \frac{EG_{JMR,\,import} \times \sum_{y=0}^{n} EG_{gross,\,y}}{\left(\sum_{y=0}^{n} EG_{gross,\,y} + \sum_{y=0}^{m} EG_{gross,\,y}\right)}$$

Therefore, emission reductions would have been calculated (if there would not have been any delay in the calibration of LCS meters) as under;

ERy = BEy = (EG_{Export} – EG_{Import}) * EFy
ERy = BEy = (19,897 – 24.85) * (0.90641 tCO_2/MWh)
= (19,872 MWh) * (0.90641 tCO2e/MWh)

However, as the calibration of LCS meters (in built meters at WTGs) of the project activity was delayed in the monitoring period, an error 0.64% was observed in the delayed calibration results. The error has been multiplied conservatively on the EG_{Export} and EG_{Import} to re-calculate the emission reductions in line with Appendix I of CDM VVS as under;

ERy = BEy = [(19,897 MWh) * (1-0.64%)– (24.85 MWh) *(1+0.64%)] * [0.90641 tCO2/MWh]
= [19,744 MWh] * [0.90641 tCO2e/MWh]
= 17,896 tCO_2e (Rounded down)

The verified emission reductions for the current monitoring period are 17,896 tCO2e.

Comparison of estimated ERs and actual ERs

The annual estimated emission reductions are 33,348 tCO_2e as per the registered PDD /1/. The estimated emission reductions for the monitoring period from 01/08/2011 to 31/03/2012 are approximately 22,232 tCO2e considering eight months (as the emission reductions are claimed only for eight months i.e. from 01/08/2011 to 31/03/2012) as per the registered PDD.

The actual emission reductions from 01/08/2011 to 31/03/2012, is 17,896 tCO2e, which is lower than the corresponding estimated emission reductions, as per the PDD is 22,232 tCO2e for a comparable period.

In line with para 246 of VVS the verification team confirms the following:

- The data used for the determination of the emission reductions were available for the period 01/08/2011 to 31/03/2012.
- The reported data has been cross checked with the recorded data in the CMS, JMR(Credit Notes) and Invoices. The calibration certificates were also checked. The monitored data was cross checked during site visit by the verification team;
- The methods and formulae for calculating baseline emissions,have been properly followed in accordance with the provisions in the registered PDD and applied methodology. There are no project and leakage emission in the project activity;
- The assumptions, emission factors and default values that were applied in the monitoring report and the calculations have been justified.

3.8 Recommendations for Changes in the Monitoring Plan

The verification team has reviewed the validation report and previous verification report /05/ and confirms that there are no outstanding issue. The permanent changes in the registered monitoring plan have been mentioned in section 3.2.3 above.

3.9 Materiality

The actual emission reductions in the monitoring period are 17,896 tCO_2e which are less than the estimated emission reductions 22,232 tCO_2e as per the registered PDD hence there is no requirement of applying Guidlines on Application of Materiality in Verifications (EB 69, Annex 6) in the project activity. The verification team has checked the monitoring data for the entire monitoring period as described in section 3.5 above and the same is found to be correct. The verification team confirms that the claimed emission reductions are free from material errors, omissions or misstatements, with a reasonable level of assurance.

4. VERIFICATION AND CERTIFICATION STATEMENT

URS Verification Private Ltd has been contracted by Enercon (India) Limited to perform the verification of the emission reductions reported for the CDM project "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra", UNFCCC Ref. No. 3854 for the monitoring period 01/08/2011 to 31/03/2012 in the Monitoring Report Version 04 dated 18/09/2012.

The verification activity is with regards to relevant requirements of CDM procedures which is based on the validated and registered project design document and the monitoring report for this project. Verification is performed in accordance with section I of Decision 3/CMP.1, and relevant decisions of the CDM EB and CoP/MoP. The scope of this engagement covers the verification and certification of greenhouse gas emission reductions generated by the above project during the mentioned period as above, as reported in Monitoring report for the project activity "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra",Version 04 dated 18/09/2012.

The management of the Enercon (India) Limited is responsible for the preparation, calculation and determination of GHG emission reductions from the project. The development and maintenance of records and reporting procedures are in accordance with the monitoring report.

It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period 01/08/2011 to 31/03/2012 based on the reported emission reductions in the Monitoring Report version 04 dated 18/09/2012 for the same period.

Based on documented evidences and corroborated by an on-site assessment URS Verifications confirms that:

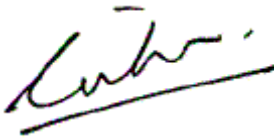
- The project activity has been implemented and operated as per the registerted PDD;
- The monitoring plan is in place as per the applied baseline and monitoring methodology;
- The monitoring report, data and calculation of the GHG emission reduction and other supporting documents provided are complete, verifiable and supports the emssion reductions being claimed;
- The monitoring complies with the monitoring plan in the registrered PDD;

The verification team confirms that the claimed emission reductions are free from material errors, omissions or misstatements, with a reasonable level of assurance.The permanent changes to the monitoring plan and corrections in PDD which do not require prior approval are submitted alongwith request for issuance in line with para 134 of Project Cycle Procedure. URS confirms that the project is implemented as described in the validated, registered and revised project design document. The GHG emission reduction stated in the monitoring report version 04 of the 18/09/2012 for the "20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra" project in India for the period 01/08/2011 to 31/03/2012 are fairly stated.

Based on the information evaluated, we confirm the following:

Project Title:	20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra
UNFCCC Reference Number:	3854
Registered PDD and Revised PDD Used for Verification:	Version 04 dated 12/04/2010 and revised PDD version 05 dated 19/09/2012
Methodology Used for Verification:	"Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 11 dated 12/02/2010
Monitoring Period:	01/08/2011 to 31/03/2012
Total GHG Emission Reductions Verified:	17,896 tCO_{2e}

Signed on behalf of the Verification Body by Authorized Signatory

Signature: 

Name: Mr. Mukesh Singhal

Designation: CEO

Date: 03/10/2012

APPENDIX I

Verification Checklist

Table 1 Compliance with CDM Project Verification Requirements as per the CDM VVS relevant paragraphs.

S. No.	Check-List Questions	Reference	MoV.	Verification Assesment	Conclusion
1. Applicability of applied methodology					
1.1	Please check if the applicability criteria of the methodology has been met by the project and report the check result.	ACM 0002 version 11	DR	The project is implemented in accordance with the methodology ACM 0002 and the applicability criteria are in line with the methodology.	OK
2. Implementation of the Registered CDM project					
	Is it confirmed that the project activity and its operation is in accordance with the registered		DR, SV	The operation of the project activity is in accordance with the registered PDD.	OK

2.1	project design document? Please describe the general implementation status of the project.	VVS V1 Para 226		The project is implemented and all the WTGs has been commissioned and are operational. The commissioning date of first WTG is 28/02/2007.The same has been verified during the site inspection.	
2.2	Verify and confirm that the monitoring report and the supporting documents are complete in accordance with the latest applicable version of the information and reporting checklist for request for issuance of CERs, verifiable in accordance with CDM requirements (refer to Request for issuance information and reporting checklist)	VVS V1 Para 225b	DR, SV	The verification team verified the supporting documents (calibration certificates, metering details, commissioning certificates) and cross checked the implementation and monitoring procedures during the site inspection and found them in accordance with CDM requirements and Issuance-Information & Reporting Checklist (version 2.0)	OK
3. Post registration changes					
3.1	Are there any post registration to the project activity? It should be determined whether these changes require prior approval or not.	VVS 248 and Appendix 1 of the project standard	DR	There are post registration changes to the project activity as detailed in section 3.5 and 3.6 below. These changes do not require prior approval of the board.	~~CAR 5, CAR 3~~, OK
3.2	If the post registration changes are solely of a type(s) listed in Appendix 1 of the project standard it should be discussed in the report and submitted as part of the regular issuance process.	VVS paragraphs 249(a)	DR	These post registration changes as detailed in section below are listed in Appendix I of project standard, hence do not require prior approval of board.	OK

3.3	If the changes fall outside the guidelines in Appendix 1 of the project standard are separate then a separate approval should be obtained using the prior approval procedures. The internal forms for Deviation/RMP/RCPDD should be followed.	VVS Paragraph 249(b)-250	DR	Refer section 3.2	OK
3.4	Are there Temporary deviations from registered monitoring plan or applied methodology?	VVS Paragraph 251-256,PDD M.R	DR	There are no temporary deviations from the registered monitored plan.	OK
3.5	Are there Corrections to project information? Do the corrections affect the project design?	VVS Paragraph 257-259PDD M.R	DR	The following monitoring parameters are not correctly depicted in the registered PDD especially for the notations; - $EG_{JMR, Export}$ is mentioned as $E_{JMR, Export}$ - $EG_{JMR, Import}$ is mentioned as $E_{JMR, Import}$ - EFcm,y is mentioned as EFom,y	~~CAR 5~~ OK
3.6	Are there Permanent changes from registered monitoring plan or applied methodology?	VVS Paragraph 262-268 PDD Monitoring report	DR	PP is requested to justify that: In the MR, the accuracy class of the meters used for measuring the import and export (main and check meter) is 0.2, however in the registered PDD it is 0.5. During the site verification it was observed that the all the installed meters (main and check) are of 0.2 class.	~~CAR 03~~ OK
3.7	Are there Changes to project design of registered project activity	VVS Paragraph 269-282	DR	There are no changes to the project design.	OK

		PDD Monitoring report			
3.8	Are there Changes to start date of crediting period	VVS Paragraph 260-261 PDD Monitoring report	DR	There is no change to the start date of crediting period.	OK
4. Outstanding Issues from Previous Validation/Verification					
4.1	Are there any issues from the previous validation/verification?	VVS Paragraph 224 PDD Validation report Verification report for previous MPs(if any)	DR	There are no outstanding issues from previous validation and verification of the project activity.	OK
4.2	At the last verification were any requests for reviews or full reviews raised?	Verification report for previous MPs(if any)	DR	There was no request for review for first verification.	OK

5. Conformance with Monitoring Methodology					
5.1	Is the monitoring report consistent with the version of the methodology (and applicable tools) the projects was registered against?	VVS Paragraph 229; PDD; Applied methodology.	DR	Yes the monitoring report is consistent with the version of the methodology ACM 0002 version 11. However the web-link provided in section A.4 of the MR for the methodology reference is not operational.	~~CL 01~~ OK
5.2	Are there any differences between the methodology and the monitoring plan in the registered PDD?	VVS Paragraph 229; PDD; Applied methodology	DR	No, the monitoring plan is in accordance to the applied methodlogy and the same was cross verified during the site visit and found to be consistent.	OK
6. Conformance with the registered monitoring plan					
6.1	Is the monitoring implemented in compliance with the monitoring plan?	VVS Paragraph 230; PDD;	DR	Yes, the implemented monitoring activities are in accordance to the monitoring plan of the applied methodlogy and the same was cross verified during the site visit and found to be consistent	OK

		Applied methodology; Monitoring report			
7. Verification of implementation of sampling plan					
7.1	Has sampling plan been implemented by the project?	Monitoring report template; PDD; Applied methodology; Monitoring report	DR	No sampling was involved in the project activity.	OK
7.2	Has the data regarding the calculations of the GHG emission reductions are as per the approved methodology followed in the registered PDD	VVS 244-245 PDD; Applied methodology; MR	DR	The data calculations of the GHG emissions are in line with the approved methodology.	OK
8. Accuracy of equipment					

8.1	The accuracy of the equipment used and calibration is in accordance with the monitoring plan and is also in accordance with the guidance from the CDM Executive Board ?	VVS Paragraph 234-237; PDD; Applied methodology; Monitoring report	DR	The accuracy class of main & check meters(equipment) used are of 0.2 and is in more accurate and conservative. Please refer section 3.6. above However, PP is requested to provide - Calibration record of main & check meter for which the calibration was done on 14/06/2011 - Calibration record of LCS meter for which the calibration was done in Oct. 2011 Calibration frequency of LCS meters is not in line with the registered PDD as the monitoring period starts from August 2011 and the first calibration of LCS meter is done in the month of October 2011. PP is requested to justify the delay in calibration of LCS meters and substantiate with the supporting evidence.	~~CL 02, CAR 04~~ OK
9.					
9.1	For monitoring aspects not specified in the methodology, particularly in case of small scale methodologies(e.g additional	Para 231 VVS Version 02.0	DR	In the registered PDD the accuracy class of meters as mentioned is 0.5s, however the actual accuracy class of meters used in the project activity is 0.2s	OK

	monitoring parameters, monitoring frequency and calibration frequency, are there any issues which may enhance the level of accuracy and completeness of the monitoring plan			and which is more conservative and accurate. This enhance the level of accuracy and completeness of the monitoring plan.	
10. Management and operational System and Quality Assurance					
10.1	What management and operational system and quality assurance procedures are specified in the MR?	VVS Paragraph 234; PDD; Applied methodology; Monitoring report	DR	The management & operation system and quality assuarance procedures are specified in the MR and it is in line with the registered PDD.	OK
10.2	Has the management and operational system and quality assurance been implemented as per the monitoring plan?	VVS Paragraph 234; PDD; Applied methodology;	DR	Yes, the operation and management system and quality assurance are implemented in accordance with the monitoring plan. The operation & management is done by Enercon O&M team. The same was verified during the site inspection and found to be correct and in line with the monitoring plan in the registered PDD.	OK

		Monitoring report			

11. Compliance with the Registered PDD/Information about the project on the UNFCCC website

Is the information below reported in the MR consistent with that in the UNFCCC website of the project?

OK

Title of the project activity	20 MW Enercon Wind farms (SAI) Pvt. Limited in Maharashtra
Reference number of the project activity	UNFCCC Reg. No. 3854
Registration date of the project activity	14/12/2010
Project participant(s)	Enercon (India) Limited
Host Party(ies)	India
Sectoral scope(s) and applied methodology(ies)	01 & ACM 0002/Version 11
Annual Estimated amount of GHG emission reductions or net anthropogenic GHG removals by sinks for the project in the registered PDD	22,232 tCO_{2e}

12. Project Boundary

12.1	Is the project boundary consistent with the registered PDD?	VVS paragraph 82 PDD;Monitoring report	DR	The project boundary is consistent with the registered PDD. The spatial extent of the project boundary includes the project site and all power plants connected physically to the electricity system that the CDM project power plant is connected to. The same was verified during the site inspection and found to be correct.	OK
13. Additional Sources & Proposed Changes					
13.1	Are there any additional sources which are attributable to the project?	VVS paragraph 87 PDD; Monitoring report	DR	There are no additional sources to the project activity.	OK
13.2	Are there any observed or planned changes to the CDM Project activity?	VVS paragraph 212 PDD; Monitoring report	DR	Please refer section 3.5 and 3.6 above.	~~CAR 5, CAR 3,~~ OK

Table 2:

Resolution of Corrective Action Requests and Clarification and Forward Action Requests:

Summary of Findings	**CAR**	**CL**	**FAR**
	03	02	Nil

Date:	26/07/2012	**Raised by:**		Verification Team	
Type of Finding	CL	**S. No. of Finding**	01	**Reference**	MR
Details of the Finding:		26/07/2012			
The web-link provided in section A.4 of the MR for the methodology reference is not operational.					
Project Participant Response		06/08/2012			
The web link has been revised in section A.4 of the MR.					
Documents/ information provided by the Project Participant:					
Please refer to the revised MR, section A.4.					
Reasoning for acceptance or non-acceptance:		10/08/2012			
PP has provided the correct link and the same has been checked by the verification team and found to be correct. Hence this CL is closed.					
Close out by Lead Assessor		10/08/2012			

Date:	26/07/2012	**Raised by:**		Verification Team	
Type of Finding	CL	**S. No. of Finding**	02	**Reference**	MR
Details of the Finding:		26/07/2012			
PP is requested to provide - Calibration record of main & check meter for which the calibration was done on 14/06/2011 - Calibration record of LCS meter for which the calibration was done in Oct. 2011					
Project Participant Response		06/08/2012			
All the calibration reports have been provided to the DOE.					
Documents/ information provided by the Project Participant:					
Please refer to the Calibration reports of Main and Check meters for the year 2011. Please refer to the calibration report of the LCS meters for the year 2011.					
Reasoning for acceptance or non-acceptance:		10/08/2012			
PP has provided the calibration record of main & check meter and LCS meter and the same has verified by the URS verification team and found to be correct. Hence this CL is closed.					
Close out by Lead Assessor		10/08/2012			

Date:	08/09/2012	**Raised by:**		Verification Team	
Type of Finding	CAR	**S. No. of Finding**	03	**Reference**	MR

Details of the Finding:	08/09/2012
PP is requested to justify that: In the MR, the accuracy class of the meters used for measuring the import and export (main and check meter) is 0.2, however in the registered PDD it is 0.5. During the site verification it was observed that the all the installed meters (main and check) are of 0.2 class.	

Project Participant Response	18/09/2012
At the time of project registration, the PPA has been signed considering the meter accuracy as 0.5, which is also being reflected in the registered PDD. But afterwards the meters have been installed with an accuracy class of 0.2, which have been observed during the site visit. Accordingly, the accuracy class for the meters has been mentioned as 0.2 in the monitoring report. This has no impact on the monitoring procedures as the meters installed are of higher accuracy and leads to a more accurate and conservative approach. Further, as per Clean Development Mechanism Project Standard, Annex 5, page no. 40, point 4, there is no requirement of any adjustment of the monitoring equipment, if the installed one is of higher accuracy class compared to the one mentioned in the registered PDD. However, the PP has revised the PDD.	

Documents/ information provided by the Project Participant:
The supportive document (PPA reference page no. 23) has been submitted to the DOE.

Reasoning for acceptance or non-acceptance:	19/09/2012
All the energy meters (main and check meters) of the project activity are of 0.2 class accuracy level in contrast to 0.5 as written in the registered PDD. The accuracy of current installed meters (main and check) is higher than what is prescribed in the registered PDD and therefore the current set up is found meeting the requirements in the monitoring plan of the registered PDD. Further, as per para 5(b) of Appendix 1 of CDM Project Standard, EB 65, Annex 5, changes in accuracy of meter falls under permanent changes to monitoring plan which do not require prior approval by the Board. Also, there is no requirement of any adjustment of the monitoring equipment, if the installed one is of higher accuracy class compared to the one mentioned in the registered PDD/1a/. The change in accuracy of meter was accepted by the verification team as they are more accurate measurements. PP has revised the PDD and the same has been checked by the verification team and found to be correct. Hence the CAR is closed.	

Close out by Lead Assessor	19/09/2012

Date:	08/09/2012	**Raised by:**		Verification Team	
Type of Finding	CAR	**S. No. of Finding**	04	**Reference**	MR
Details of the Finding:		08/09/2012			
Calibration frequency of LCS meters is not in line with the registered PDD as the monitoring period starts from August 2011 and the first calibration of LCS meter is done in the month of October 2011. PP is requested to justify the delay in calibration of LCS meters and substantiate with the supporting evidence.					
Project Participant Response		18/09/2012			
As per the starting date of the present monitoring period, there is a delay of the LCS calibration of approximate three months. However, The PP has revised the ER sheet considering the delay in the LCS calibration report after applying the correction factor for the whole monitoring period under conservative approach. This is in line with Annex 4, "Clean Development Mechanism Validation and Verification Standard", Version 02.0, Appendix 1: Calibration. The monitoring report has been revised accordingly.					
Documents/ information provided by the Project Participant:					
Please refer to the revised ER sheet and the monitoring report.					
Reasoning for acceptance or non-acceptance:		19/09/2012			
Regarding the delay in calibration of LCS meters, PP has taken into account the maximum error factor as per Appendix I of VVS and applied the error in calculating actual emission reductions. The maximum error factor is 0.64% as per the calibration report. The revised MR and ER sheet has been reviewed and the correction factor has now been applied on the monitoring values in conservative manner. Since, all the LCS meters are of 0.5s accuracy class, the observed error applied (0.64%) is correct in accordance with the procedures. The verification team has checked the revised calculations after applying the error and they are found to be correct, hence the CAR is closed.					
Close out by Lead Assessor		19/09/2012			

Date:	08/09/2012	**Raised by:**		Verification Team	
Type of Finding	CAR	**S. No. of Finding**	05	**Reference**	MR
Details of the Finding:		08/09/2012			
The following monitoring parameters are not correctly depicted in the registered PDD especially for the notations; - $EG_{JMR, Export}$ is mentioned as E JMR, Export - $EG_{JMR, Import}$ is mentioned as EJMR, Import - $EF_{CM,y}$ is mentioned as $EF_{OM,y}$ -Combined margin emission factor has been mentioned as Build margin emission factor					
Project Participant Response		18/09/2012			
The above parameters as mentioned in section B.7.1 of the registered PDD reflect a typographical error. The correct forms of the parameters have been there in the section B.7.2 of the registered PDD. The same has been corrected in the monitoring report and in section B.7.1 of the revised PDD. The Combined margin emission factor has also been mentioned as Build margin emission factor and the parameter EFCM,y has been mentioned as EFOM,y in the registered PDD. The same has been revised in the section B.6.2 of the registered PDD and the monitoring report.					
Documents/ information provided by the Project Participant:					
Please refer to the Monitoring report and revised PDD					
Reasoning for acceptance or non-acceptance:		19/09/2012			
PP has revised the MR and the PDD. The corrections in the revised PDD are correct and hence accepted by the verification team. Hence the CAR is closed.					
Close out by Lead Assessor		19/09/2012			

APPENDIX 2

QUALIFICATION CERTIFICATE

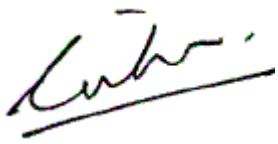
We declare that Mr./Ms Vinay Singh

is qualified as Validator/Verifier,

for the Technical Area 1.2

Technical Area	Technical Area Description	Sectoral Scope
1.2	Energy generation from renewable energy sources	1

He is also qualified as Team Leader for validation/verification functions



CEO

QUALIFICATION CERTIFICATE

We declare that Mr./Ms

Rajeev Singhal

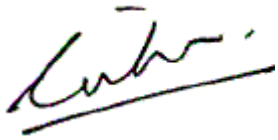
is qualified as

Financial expert

for the Technical Area

-

Technical Area	Technical Area Description	Sectoral Scope
-	-	-



CEO

QUALIFICATION CERTIFICATE

We declare that Mr./Ms Naresh Badhwar

is qualified as Validator/Verifier, Technical Reviewer

for the Technical Area 1.2, 13.1

Technical Area	Technical Area Description	Sectoral Scope
1.2	Energy generation from renewable energy sources	1
13.1	Waste handling and disposal	13

He is also qualified as Team Leader for validation/verification functions

CEO