

44 MW BUNDLED WIND POWER PROJECT IN MAHARASHTRA MANAGED BY ENERCON INDIA LIMITED.



SGS United Kingdom Limited

Project Title	44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited.
Version	04
Report ID	CCP.VOL0890 VCS VER (VCS Project ID: 489)

Report Title	44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited.
Client	Enercon (India) Limited
Pages	28
Date of Issue	12/02/2013
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Summary:

This project activity is a bundled wind power generation project with total installed capacity of 44 MW. This project activity consists of the installation of 55 Wind Turbine Generators of capacity 800 kW each. The electricity generated from these WTGs is being supplied to the NEWNE Grid; hence replacing fossil fuel dominated grid connected electricity generation.

SGS United Kingdom Ltd has performed the verification of the project “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited.” and VCS Project ID: 489 against VCS Standard Version 3.3.

The verification includes confirming the implementation of the monitoring plan of the VCS Project Description dated 16/09/2009 and the application of the monitoring methodology as per ACM0002 version 10 valid from 11/06/2009. A site visit was conducted to verify the data submitted in the monitoring report.

The report describes a total of 03 findings which include:

- 03 Corrective Action Requests (CARs);
- 00 Clarification Requests (CLs);
- 00 Forward Action Requests (FARs);

All findings have been closed satisfactorily and same has been discussed in Annex 2 of this verification report.

SGS confirms that the project is implemented in accordance with the validated VCS Project Description. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and validated project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 64,008 tCO₂e emission reductions during period 01/12/2011 up to 30/09/2012.

Abbreviations

BEF	Baseline Emission Factor
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CERC	Central Electricity Regulatory Commission
CL	Clarification Request
CMP	Conference of Parties Serving as Meeting of Parties
CO ₂	Carbon dioxide
DISCOM	Distribution Company
EB	Executive Board
ER	Emission Reduction
EIL	Enercon India Limited
EPC	Engineering, Procurement and Construction
FAR	Forward Action Request
GHG	Green House Gas
ISO	International Standards Organization
JMR	Joint Meter Reading
kW	Kilowatt
kWh	Kilowatt hour
MFR	Multi-Function Relay
MR	Monitoring Report
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MW	Megawatt
MWh	Megawatt-hour
NEWNE	Northern Eastern Western Northern-Eastern
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
PPA	Power Purchase Agreement
SCADA	Supervisory Control And Data Acquisition
SGS	SGS United Kingdom Limited
QA/QC	Quality Assurance and Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual
WTG/WEG/WEC	Wind Turbine Generator/Wind Energy Generator/Wind Energy Converter
VCS	Verified Carbon Standard
VCSA	Voluntary Carbon Standard Association
VCS PD	VCS Project Description
VCUs	Verified Carbon Units
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

SGS United Kingdom Ltd has been contracted by Enercon (India) Limited to perform an independent verification of its project “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited.” against VCS Standard Version 3.3. The verifiers have reviewed the GHG data collected to date for the period from 01/12/2011 up to 30/09/2012.

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the project has resulted in emission reductions as declared by the organisation or GHG project’s GHG assertion;
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

1.2 Scope and Criteria

This engagement covers verification of emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited”.

Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the project’s GHG emission reductions for the defined reporting period.

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 Level of assurance

The level of assurance of the verification report is reasonable assurance engagements as selected by the Client. Materiality for the project is 5%.

1.4 Summary Description of the Project

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

Title of Project Activity:	44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited
Project database ID	VCSPD 489
Monitoring Period Covered in this Report	01/12/2011 up to 30/09/2012
Project Proponent	Enercon (India) Limited (India-host)
Location of the Project Activity:	Villages in Kadvekhurd, Varekarwadi,

Bhambarwadi & Panchpatta, in Satara, Sangli, Nasik & Ahmednagar district in the state of Maharashtra (India)

The project activity is located in districts Satara, Sangli, Nasik and Ahmednagar in the state of Maharashtra, India. The project activity consists of the installation of 55 WTGs of capacity 800 kW each invested by 29 investors. The electricity generated from these WTGs is being supplied to Maharashtra State grid which is integral part of NEWNE Grid. The equivalent amount of electricity would have been generated through fossil fuel fired power plants connected to NEWNE Grid resulting in higher GHG emissions in absence of the project activity. Hence generation of power through the project activity contributes to GHG emission reductions. The project activity is already commissioned^{/11/} and it is found to be running satisfactorily.

2 VALIDATION PROCESS, FINDINGS AND CONCLUSION

2.1 Validation Process

This project activity is registered under VCS standard 2007.1. Thus it is concluded that all the rules and validation requirements set by VCS are already taken care at the time of VCS validation of the project activity under 2007.1. Thus no further validation is required for the project activity. The PP has not applied this project activity to any other GHG program and hence there is no double counting of emission reductions.

2.2 Validation Findings

2.2.1 Gap Validation

This project activity is not registered under CDM; gap validation with reference to the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description template is not required as the project activity is registered under VCS 2007.1.

2.2.2 Methodology Deviations

Not applicable as no methodological deviations are found. Monitoring plan implemented at project site is in line with registered VCS PD^{/1/} as well as applied methodology^{/2/} for the project activity.

2.2.3 Project Description Deviations

Not applicable as no project description deviations are found. Monitoring plan implemented at project site is in line with registered VCS PD^{/1/}.

2.2.4 New Project Activity Instances

Not applicable as no new project activity instances are included in the project activity. During the site visit to the project activity, it is confirmed that the implementation of the project activity is in accordance with the project description mentioned in registered VCS PD^{/1/}.

2.3 Validation Conclusion

Since the project activity is not registered under CDM or any other GHG program, no further validation is required for the project activity. It is concluded that all the rules and validation requirements set by VCS are already taken care at the time of VCS validation of the project activity under 2007.1 and it is also found in line with VCS version 3.3.

3 VERIFICATION PROCESS

3.1 Method and Criteria

SGS' approach to the verification is a two-stage process.

In the first stage, SGS completed a strategic review and risk assessment of the projects activities and processes in order to gain 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.

At the end of this stage, SGS produced a Verification Checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

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

3.2 Document Review

The VCS PD, monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in Annex 1 of this report.

3.3 Interviews

The site visit to the project activity was conducted during period 27/12/2012 to 29/12/2012. During site visit to the project activity, personnel responsible for monitoring of the project activity, data collection and management, QA/QC procedure to be followed for the project activity is interview. Summary of the same is discussed in table as below. Interview with relevant personnel of the PP after the site visit also have been recorded in the table below;

Date	Name	Position	Short Description of Subject Discussed
27/12/2012 – 29/12/2012	Mr. Bhupendra Verma	Assistant Manager – CDM, EIL	• Plant Operations • Project boundary

and onwards	Ms. Anushree Mishra		• Monitoring & Measuring System • Collections and recoding of data • Data archiving system • Calibration of measuring Equipments • Operation and Maintenance procedures • VCS monitoring & Reporting documentation • Quality Assurance-Management & Operating System • Training procedures
27/12/2012 – 29/12/2012	Mr. Ramesh Nikam Mr. Ulkesh Sonawane Mr. Vaibhav Sharma Mr. Md. Majhar Hussain Mr. Bapan Mishra	Assistant Engineers – Enercon (India) Limited	• Plant Operations • Monitoring & Measuring System • Collections and recoding of data • Data archiving system • Calibration of measuring Equipments • Operation and Maintenance procedures • Quality Assurance-Management & Operating System • Training procedures

3.4 Site Inspections

As part of the verification, the following on-site inspections have been performed by the Assessor/ Local Assessor/ Sectoral Scope Expert.

Location: Villages in Kadvekhurd, Varekarwadi, Bhambarwadi & Panchpatta, in Satara, Sangli, Nasik & Ahmednagar district in the state of Maharashtra	
Date: 27/12/2012 – 29/12/2012	
Coverage:	Source of Information / Persons Interviewed
VCS monitoring and reporting documentation Assessment of project boundary	Mr. Bhupendra Verma, Assistant Manager – CDM, EIL
Plant Operations	Mr. Ramesh Nikam Mr. Ulkesh Sonawane Mr. Vaibhav Sharma Mr. Md. Majhar Hussain Mr. Bapan Mishra Assistant Engineers – EIL

Monitoring and measuring system • Collection of measurements • Observations of established practices Data Verification of monitoring parameters	Mr. Bhupendra Verma, Assistant Manager – CDM, EIL Mr. Ramesh Nikam Mr. Vaibhav Sharma Mr. Md. Majhar Hussain Mr. Bapan Mishra Mr. Ulkesh Sonawane, Assistant Engineers, EIL
Quality Assurance – Management and operating system	Mr. Ramesh Nikam Mr. Ulkesh Sonawane, Assistant Engineers, EIL

3.5 Resolution of Any Material Discrepancy

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

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

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

- I. the verification is not able to obtain sufficient evidence for the reported emission reductions or part of the reported emission reductions. In this case these emission reductions shall not be verified and certified;
- II. the verification has identified misstatements in the reported emission reductions. Emission reductions with misstatements shall be discounted based on the verifiers ex-post determination of the achieved emission reductions

The verification process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

FARs may be raised which are for the benefit of future projects and future verification actors. These have no impact upon the completion of the verification activity.

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

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

4.1.1 Implementation Status of the project activity

Project activity is implemented and equipments are installed^{/11/} as described in the registered VCS PD.

This is the fourth verification for the project activity. The project activity has been commissioned^{/11/} and implemented satisfactorily. The same has been checked and verified during the site visit to the project activity.

Sr. No	Customer Name	Capacity of Each WTG	Loc No.	Capacity	Date of Commissioning
1	G. B. Rubber Products	0.8	1	1.6	14/02/2006
2	G. B. Rubber Products	0.8	2		14/02/2006
3	Shah Lulla Estate Developers	0.8	4	0.8	14/02/2006
4	Liberty Oil Mills Ltd.	0.8	6	2.4	07/02/2006

Sr. No	Customer Name	Capacity of Each WTG	Loc No.	Capacity	Date of Commissioning
5	Liberty Oil Mills Ltd.	0.8	7		07/02/2006
6	Liberty Oil Mills Ltd.	0.8	8		07/02/2006
7	Liberty Oil Mills Ltd.	0.8	1	1.6	08/02/2006
8	Liberty Oil Mills Ltd.	0.8	2		08/02/2006
9	Paceman Sales Promotion P. Ltd.	0.8	36	0.8	22/03/2006
10	Delta Enterprises	0.8	37	1.6	22/03/2006
11	Delta Enterprises	0.8	38		15/06/2006
12	Delta Enterprises	0.8	19	0.8	15/06/2006
13	Mahanagar Developers	0.8	53	4.8	05/01/2007
14	Mahanagar Developers	0.8	54		06/03/2007
15	Mahanagar Developers	0.8	55		05/01/2007
16	Mahanagar Developers	0.8	56		05/01/2007
17	Mahanagar Developers	0.8	57		05/01/2007
18	Mahanagar Developers	0.8	61		05/01/2007
19	Mahanagar Developers	0.8	62	2.4	06/03/2007
20	Mahanagar Developers	0.8	63		05/01/2007
21	Mahanagar Developers	0.8	60		06/03/2007
22	Mahanagar Developers	0.8	30	0.8	28/02/2007
23	Kishor Food Products P. Ltd.	0.8	47	0.8	10/12/2008
24	Mr. J. P. Patel	0.8	95	0.8	29/03/2007
25	Mr. C. P. Patel	0.8	84	0.8	31/03/2007
26	Mr. V. V. Patel	0.8	80	0.8	31/03/2007
27	Mr. J. V. Patel	0.8	83	0.8	29/03/2007
28	Mr. S. V. Patel	0.8	94	0.8	29/03/2007
29	Mr. V. L. Patel	0.8	76	0.8	29/03/2007
30	Laxmi Narayan Best Chiwda	0.8	81	0.8	29/03/2007
31	New Sahyadri Industries Ltd.	0.8	74	1.6	27/01/2007
32	New Sahyadri Industries Ltd.	0.8	75		27/01/2007
33	Mr. P. L. Patel	0.8	45	0.8	06/02/2007
34	Elpro International	0.8	52	0.8	30/12/2006
35	Prachar Energy	0.8	31	1.6	03/03/2007
36	Prachar Energy	0.8	32		03/03/2007
37	D.J. Malpani (Panama Wind Energy transferred WTGs to D.J. Malpani in April 2011)	0.8	47	1.6	30/12/2006
38	D.J. Malpani	0.8	48		30/12/2006
39	International Conveyors Ltd.	0.8	51	0.8	30/12/2006
40	Shreem Capacitors Pvt. Ltd.	0.8	50	3.2	10/12/2008
41	Shreem Capacitors Pvt. Ltd.	0.8	51		10/12/2008

Sr. No	Customer Name	Capacity of Each WTG	Loc No.	Capacity	Date of Commissioning
42	Shreem Capacitors Pvt. Ltd.	0.8	52		10/12/2008
43	Shreem Capacitors Pvt. Ltd.	0.8	58		10/12/2008
44	Metalfab Hightech Private Limited	0.8	46	0.8	06/02/2007
45	Atlas Tours & Travels Pvt. Ltd.	0.8	5	0.8	07/02/2007
46	Om Shanti Wind Farms P. Ltd.	0.8	82	0.8	31/03/2007
47	Gargi Construction Co. Pvt. Ltd.	0.8	49	1.6	30/12/2006
48	Gargi Construction Co. Pvt. Ltd.	0.8	50		30/12/2006
49	Mohite & Mohite	0.8	59	2.4	30/12/2006
50	Mohite & Mohite	0.8	60		30/12/2006
51	Mohite & Mohite	0.8	61		30/12/2006
52	Indiana Engineering Works (Bombay) P. Ltd.	0.8	33	1.6	03/03/2007
53	Indiana Engineering Works (Bombay) P. Ltd.	0.8	34		03/03/2007
54	Welpack Industries Ltd.	0.8	29	0.8	28/02/2007
55	Sunilkumar Ramanlal Shah	0.8	77	0.8	30/03/2008

The WTGs have been commissioned between 07/02/2006 & 10/12/2008 as mentioned in the monitoring report^{/3/} and this has been cross verified with the commissioning certificates^{/11/}. The monitoring report for the fourth monitoring period is in compliance with the monitoring plan of the registered VCS PD.

The start date of the current monitoring period is 01/12/2011 which is found to be consistent with end date of third monitoring period i.e. 30/11/2011.

A verification site visit to the project activity has been carried out by members of the verification team during period of 27/12/2012 to 29/12/2012. The Operation and Implementation of the project activity have been checked and the same has been confirmed during the site visit to the project activity. It is also found to be consistent with the registered VCS PD^{/1/}.

The monitoring report^{/3.3/} has been checked for consistency with the registered VCS PD^{/1/}; it is found to be consistent. The PP has considered the monitoring parameters in the monitoring report as per the registered monitoring plan and the deviation approved during the previous monitoring period.

The recording frequency and completeness of the data for the monitoring period have been checked and it is found to be appropriate as per the registered monitoring plan^{/1/}.

The locations of the monitoring instruments i.e. energy meters have been checked and confirmed during the site visit. The same is found to be appropriate and consistent with the registered VCS PD^{/1/}.

CAR #1 (point 1) - In the table in section 1.7 of the MR version1 dated 03/12/2012, the PP is requested to clarify why a range of coordinates is mentioned (in some cases) for a single WTG. In response, the PP has clarified that the range of co-ordinates mentioned in the registered VCS PD and the table in section 1.7 of the MR version1 dated 03/12/2012 is for WTGs of the following customers: Atlas Tours & Travels Pvt. Ltd, Shah Lulla Estate Developers, Liberty Oil Mills Ltd., & G. B. Rubber Products. All the WTGs of these customers are present in the Kadvekhurd site and the range reflects the location of all WTGs. This

was checked and confirmed during the site visit with the personnel at the site. Hence accepted and CAR #1 (point 1) was **closed** out.

CAR #1 (point 4) - Section 3.3 of the MR Version 1 dated 03/12/2012 mentions that a deviation is taken from the current monitoring period. The PP was requested to clarify if this was appropriate. In response, the PP has clarified that no deviation has been sought in the current monitoring period. A deviation was sought and approved in the 3rd monitoring period and the monitoring plan mentioned in the MR Version 2 dated 31/12/2012 is in line with the monitoring plan mentioned in the registered VCS PD and the deviation sought during the 3rd verification. The PP has reflected the same in Section 3.3 of the MR Version 2 dated 31/12/2012. The final MR and verification report for the 3rd monitoring period has been checked to confirm the deviation. Hence accepted and CAR #1 (point 4) was **closed** out.

CAR #3 (point 1) - The report ID was not been mentioned on the title page of the MR. In response the PP has now mentioned the report ID on the title page of the MR. Hence accepted and CAR #3 (point 1) was **closed** out.

Corresponding to paragraphs 229 to 232 of VVS 3.0, the verification team confirms that the monitoring has been carried out in accordance with the approved methodology ACM0002 version 10, which was applied to the project activity. This is found to be appropriate and it is accepted.

4.1.2 Remaining Issues from Previous Validation or Verification

This is the fourth verification for the project activity. During the current verification assessment of the project activity, project validation report and previous verification reports^{/9/} have been checked and reviewed by the verification team. There are no pending or open issues observed for the project. The monitoring methodology observed to be followed in the current monitoring period is in accordance with the registered monitoring plan^{/1/}.

4.1.3 Compliance of the monitoring plan with the monitoring methodology

The monitoring plan of the registered project is in accordance with the applied methodology ACM0002 version 10^{/2/}.

The project had been registered with the approved methodology ACM0002, "Consolidated baseline methodology for grid-connected electricity generation from renewable sources," version 10 valid from 11/06/2009^{/2/}. The monitoring plan implemented for the current verification is in accordance with the registered monitoring plan^{/1/} except deviation approved during the previous monitoring period. The registered monitoring plan has been checked and it is found to be consistent with the requirements of applied monitoring methodology ACM0002 version 10 valid from 11/06/2009^{/2/}. Also the project boundary was found to be consistent with the registered VCS PD^{/1/}. It was checked and confirmed during the site visit that there is no other additional source of GHG emissions which are attributable to the project activity.

This is in line with paragraphs 229 – 232 of VVS Version 3.0.

4.1.4 Implementation Status of the Monitoring Plan and Completeness of Monitoring

Monitoring of reductions in GHG emissions to result from the project have been implemented in accordance with the monitoring plan contained in the VCS PD. The monitoring mechanism is effective and reliable.

Monitoring of reductions in GHG emissions to result from the project have been implemented in accordance with the monitoring plan contained in the VCS PD except for the deviation approved during the previous monitoring period. The monitoring mechanism is effective and reliable.

The project activity was registered under VCS 2007.1 with VCS project ID 489. All versions of the monitoring reports for the current verification mention the monitoring period from 01/12/2011 up to 30/09/2012. During the site visit, personnel involved at various levels of operation of the project activity have been interviewed. It has been confirmed that the onsite personnel are conscious of the importance of monitoring related activities. The onsite verification of measurement records also substantiate consistency in recording and reporting of the monitored data.

The following parameters have been verified for current monitoring period:

(1) Net electricity supplied to the grid by the Project, EG_y , net

This parameter is being calculated based on the apportioned values of electricity export and import at MSEDCL's meter at substation^{6/}. The value of this parameter is being sourced from JMR reports^{6/} and it is further crosschecked with invoices^{5/} raised by individual investors involved in the project activity. This parameter is being used for the calculation of the emission reductions for the project activity. This is found to be consistent with the monitoring methodology as per registered VCS PD^{1/}; hence this is accepted. Since MSEDCL is the third party government agency; this parameter has been considered from the JMR reports^{6/} for emission reductions calculations for the project activity. The value of this parameter for the current monitoring period is **70,657.894 MWh**.

(2) Electricity exported to the grid by the project activity in year y, $EG_{Export y}$

This parameter is apportioned value of electricity export being measured at the meter installed at MSEDCL's substation based on proportion of electricity generation by WTGs involved in the project activity in total electricity generation by all WTGs connected to a particular feeder at the MSEDCL substation. The value of this parameter is being used for calculation net electricity supplied to grid by project activity. As per the registered VCS PD, this parameter is being monitored at energy meter located at MSEDCL's substation. However, this parameter is not directly being measured but it is apportioned value of electricity export measured at meter installed at the MSEDCL substation. Electricity is being measured hourly and same is being recorded monthly at substation. The PP calculated and reported electricity exported to the grid by the project activity on monthly basis. This is in line with the applied methodology ACM0002 version 10. Joint Meter Reading is being taken on a monthly basis and it is signed by MSEDCL's and EIL's. The value of this parameters is directly sourced from JMR Reports^{6/} and this is further crosschecked with invoices^{5/} raised by individual investors involved in the project activity. The value of this parameter for the current monitoring period is **70,693.181 MWh**.

(3) Electricity imported from the grid, $EG_{Import y}$

This parameter is apportioned value of electricity import being measured at meter installed at MSEDCL's substation based on proportion of electricity generation by WTGs involved in the project activity in total electricity generation by all WTGs connected to a particular feeder at MSEDCL substation. The value of this parameter is being used for calculation net electricity supplied to grid by project activity. As per the registered VCS PD, this parameter is being monitored at energy meter located at MSEDCL's substation. However, this parameter is not directly being measured but it is apportioned value of electricity import measured at meter installed at MSEDCL substation. Electricity is being measured hourly and same is being recorded monthly at substation. The PP calculated and reported electricity imported from the grid by the project activity on monthly basis. This is in line with the applied methodology ACM0002 version 10.

Joint Meter Reading is being taken on a monthly basis and it is signed by MSEDCL's and EIL's. The value of this parameters is directly sourced from JMR Reports^{/6/} and this is further crosschecked with invoices^{/5/} raised by individual investors involved in the project activity. The value of this parameter for the current monitoring period is **35.287 MWh**.

The registered VCS PD^{/1/} mentions that calibration/testing of monitoring equipments installed for the project activity will be done annually. During the site visit to the project activity, it is observed that MSEDCL is carrying out calibration of these energy meters annually. Also CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006^{/17/} which is considered as national standard mentions that *"All interface meters shall be tested at least once in five years."* Hence annual calibration frequency considered for the project activity is found to be conservative. This is found to be appropriate and it is accepted. The test results are found to be within the permissible limit and they are found to be accepted. However, a delay in calibration is observed which has been described in section 4.1.5 below.

The project participant had proposed deviation to exclude monitoring parameter $EG_{Gross, y}$ i.e. electricity generation at controller from section 3.2 of the monitoring report. This deviation was sought during the previous monitoring period. The VCUs for the previous monitoring period have been issued.

CAR #1 (point 3) - The PP was requested to clarify the inconsistency in the value of $EG_{Export, y}$ and $EG_{y, net}$ between the MR and the spreadsheet. The values of $EG_{Export, y}$ and $EG_{y, net}$ are now consistent between the MR and the spreadsheet. This has been checked and confirmed. Hence accepted and CAR #1 (point 3) was **closed** out.

CAR #2 - Excel spreadsheet tab titled "VER Calculation & Generation" - Cells G34; P31; Q31; Y30; AH31; AI31 – The values are inconsistent with the source. In response, the PP has submitted a revised excel spreadsheet version 2 dated 31/12/2012, which was checked for the revisions made by the PP to the values in the above mentioned cells. These values are not found consistent with the source. Hence accepted and CAR #2 was **closed** out.

CAR #3 (point 2) - Section 3.2 and section 3.3 of the MR described the parameters $EG_{import, y}$ and $EG_{export, y}$ as measured as well as calculated parameters. The PP is requested to clarify this inconsistency. In response the PP has now revised the description of the parameters $EG_{import, y}$ and $EG_{export, y}$ in Section 3.2 of the MR. These parameters are calculated by the state utility using the formulae mentioned in section 3.3 of the MR. This process is not in control of the PP. This description is consistent with the actual process on site and clarifies the procedure mentioned in the MR. Hence accepted and CAR #3 (point 2) **closed** out.

CAR #3 (point 5) - The value of net electricity supplied to the grid was inconsistent in the MR (Section 1.1 and 3.2). In response, the PP has revised the value of net electricity supplied to the grid in section 1.1 of the MR to make it consistent throughout the MR. Hence accepted and CAR #3 (point 5) was **closed** out.

4.1.5 Accuracy of Equipment

During the verification assessment of the project activity accuracy and calibration of all the metering and plant installations have been checked and found appropriate. The details of monitoring equipments involved in the project activity and their calibration details are mentioned in below table;

Sr. No.	Meter Serial No.	Accuracy Class	Calibration Dates	Delayed Calibration Error applied for period
1	04760188	0.2s	08/09/2011 and 03/05/2012	-
2	04760189	0.2s	26/08/2011 and 05/05/2012	-
3	04862746	0.2s	22/06/2011 and 27/08/2012	01/06/2012 to 31/08/2012
4	04862747	0.2s	22/06/2011 and 27/08/2012	01/06/2012 to 31/08/2012
5	04862984	0.2s	14/06/2011 and 20/06/2012	01/06/2012 to 30/06/2012
6	04862987	0.2s	14/06/2011 and 20/06/2012	01/06/2012 to 30/06/2012
7	04862989	0.2s	14/06/2011 and 20/06/2012	01/06/2012 to 30/06/2012
8	04862978	0.2s	14/06/2011 and 20/06/2012	01/06/2012 to 30/06/2012

The installation and working condition of the plant equipments and meters were checked during the site visit for the project activity and it was found to be satisfactory. It is also evident from the above table that calibrations for all monitoring equipment involved in the project activity are valid for current monitoring period. Delay in calibration is observed for the period 22/06/2012 to 27/08/2012 for meter nos. 4862746 and 4862747; and for the period 14/06/2012 to 20/06/2012 for the meter nos. 4862978; 4862983; 4862984; and 4862987 considering the annual calibration frequency. Thus the project participant applied the maximum permissible error of 0.2% conservatively to both the values i.e. electricity exported and electricity imported in line with paragraph 4 (a) of EB 52 Annex 60 i.e. Guidelines for assessing compliance with the calibration frequency requirements. During the site visit to the project activity, the accuracy class of the meters are found to be 0.2s which is found to be consistent with the registered VCS PD^{1/}. The Gazette of India (Registered NO. DL (N) – 04/0007/2003 – 15) dated 26/07/2010^{13/} which is a gazette for metering regulations in India clearly mentions that for voltage of 650 V up to 33 kV, 0.5s and better is recommended. Hence, the accuracy classes of 0.2s of energy meters installed at sites are found to be appropriate and it is accepted.

CAR #1 (point 5) - A meter change has been observed compared to the previous monitoring period i.e. Meter no. 04862989 has been replaced by 04862983 on 27/02/2012. The same was not reflected in the MR Version 1 dated 03/12/2012 for the current monitoring period. The meter change observed during the site visit (i.e. Meter no. 04862989 replaced by 04862983) is now reflected in section 3.3 of the MR Version 2 dated 31/12/2012. The meter details mentioned in the MR are consistent with the observations during the site visit. The meter change certificate has also been checked to confirm that the meter change was due to failure of the old meter. The new meter is of the same accuracy class (0.2s) as the old meter. The meters are sealed, maintained, calibrated by the state utility and the entire procedure of meter change is also under the jurisdiction of the state utility only. The PP has no control in this process. Hence there is no affect on quality of data used for emission reduction calculations due to this meter change. Hence accepted and CAR #1 (point 5) was **closed** out.

As per Para 234 c), VVS, version 3.0, the verification team is able to confirm that the accuracy of equipment used for monitoring is in accordance with the relevant guidance provided by the CDM Executive Board and it is controlled and calibrated in accordance with the monitoring plan;

- (i) Monitoring results are consistently recorded as per approved frequency;
- (ii) Quality assurance and quality control procedures have been applied in accordance with the monitoring plan.

4.1.6 Data from External Sources

Since, the combined margin grid emission factor was calculated based on ex-ante approach indicated by Tool to calculate emission factor of an electricity system, the value of “**Operating margin emission factor of NEWNE Grid, $EF_{OM,y}$** ” will remain ex-ante as **1.00862 tCO₂/MWh** throughout the crediting period and same has been considered from the registered VCS PD^{/1/}. The basis for the same was “CO₂ Baseline Database for Indian Power Sector”, version 4.0 published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm. This is found to be appropriate and it is accepted.

The value of “**Build margin emission factor of NEWNE grid, $EF_{BM,y}$** ” is **0.59771 tCO₂/MWh** considered from the registered VCS PD^{/1/} and same will remain ex-ante throughout the crediting period. The basis for the same was “CO₂ Baseline Database for Indian Power Sector”, version 4.0 published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm. This is found to be appropriate and it is accepted.

The “**Combined margin emission factor of NEWNE grid, $EF_{grid,y}$** ” has been fixed ex-ante during the validation stage^{/1/} as **0.9058975 tCO₂/MWh** and it is applicable for the crediting period considered for the project activity.

The verification team reviewed the comparison of the actual VCUs claimed in the monitoring period with the same estimated in the VCS PD; the same has been discussed above.

CAR #1 (point 2) - The PP was requested to clarify the inconsistency in the value of $EF_{grid,y}$ in sections 3.1 & 4.1 of the MR and the spreadsheet. The value of $EF_{grid,y}$ has now been consistently used as 0.9058975 in sections 3.1 & 4.1 of the MR and the spreadsheet. Hence accepted and CAR #1 (point 2) was **closed** out.

Corresponding to the paragraph 245 of VVS version 3.0, it has been ensured that:

1. The data used for the determination of the emission reductions are available and monitored in accordance with the registered monitoring plan.
2. The appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been properly followed the applied methodology and registered VCS PD.
3. The emission factor of NEWNE Grid determined ex-ante during validation of the project activity. The same is applied in the current monitoring report and the calculations have been justified.

4.2 Accuracy of GHG Emission Reduction or Removal Calculations

4.2.1 Accuracy of GHG Emission Reduction or Removal Calculations

The calculation of the emission reductions is found to be correct. The details of the reported and the verified values for all parameters are listed in section 4.2.2 of this report, 'Calculation of Emission Reductions'.

The net electricity supplied to grid by the project activity is used for the emission reduction calculations. The project participant has provided a complete set of data for the current monitoring period. The values of parameters reported in the ER spreadsheet^{/4.1/} by the PP and the same were checked and confirmed with the same mentioned in the JMR reports^{/6/} and invoices raised by the project participant^{/5/}. The values are found to be consistent and accurate.

The formula and method used to calculate the baseline emissions are appropriate. Since the project is a wind power generation project, project emissions and leakage emissions are not involved in the project activity. This is found to be in line with the approved methodology ACM0002 version 10 and as defined in the registered VCS PD^{/1/}.

4.2.2 Calculation of Emission Reductions or Removals

Parameter	Reported Value MR Version 1	Verified Value MR Version 2
Net electricity supplied to the grid by the Project, $EG_{y, \text{ net}}$ (MWh)	70,668.783	70,657.894
Electricity exported to the grid by the project activity in year y, $EG_{\text{Export } y}$ (MWh)	70,704.003	70,693.181
Electricity imported from the grid, $EG_{\text{Import } y}$ (MWh)	35.220	35.287
Combined margin emission factor of NEWNE grid, $EF_{\text{grid}, y}$ (tCO ₂ e /MWh)	0.90589	0.9058975

Grid emission factor is determined ex-ante and fixed throughout the crediting period.

The emission reduction is calculated as follows:

$$\begin{aligned}
 \text{Baseline emission} &= EG_{y, \text{ net}} \text{ (MWh)} \times EFCM, y \text{ (tCO}_2\text{e /MWh)} \\
 &= 70,657.894 \times 0.9058975 \\
 &= 64,008 \text{ t CO}_2\text{e}
 \end{aligned}$$

As per methodology, leakage emissions and project emissions are zero.

Thus emission reductions are calculated as follow:

$$\begin{aligned}
 \text{Emission reductions} &= \text{Baseline emissions} - \text{Project emissions} - \text{Leakage emissions} \\
 &= 64,008 - 0 - 0 \\
 &= 64,008 \text{ tCO}_2\text{e}
 \end{aligned}$$

Vintage-wise VERS

Vintage	VERs (tCO ₂ e)
01/12/2011 to 31/12/2011	3,184
01/01/2012 to 30/09/2012	60,824
Total	64,008

CAR #3 (point 3) - In section 4.4 of the MR, the vintage wise VCU table, the first vintage mentioned is December 2012. The PP was requested to clarify the same. In response, the PP has revised the vintage wise VCU table in section 4.4 of the MR to correctly reflect the month December 2011. Hence accepted and CAR #3 (point 3) was **closed** out.

CAR #3 (point 4) - In section 5 of the MR it is observed that there is an increase in actual VCU as compared to the estimated values in the PDD. But the information provided in this section does not confirm the same. The PP was requested to clarify the same. In response, the PP has revised section 5 of the MR to correctly mention that there is an increase in actual VCU as compared to the estimated values in PDD. This 9.1% increase is due to higher wind availability during the current monitoring period leading to higher wind availability. This is beyond the control of the PP. Hence accepted and CAR #3 (point 4) was **closed** out.

4.3 Quality of Evidence to Determine GHG Emission Reductions or Removals

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

The data pertaining to the parameters mentioned in section 4.2.2 of this report are maintained in the identified records^{/6/, /5/, /7/}. The external sources data have been discussed in section 4.1.6 of this report. All the data is in compliance with the figures stated in the MR^{/3/} and the ER calculation excel spreadsheet^{/4.1/}.

According to the registered VCS PD, the verification team has checked the JMR reports^{/6/} signed by MSEDCL's and Enercon's officials. The same have being cross checked against the invoices raised to MSEDCL by individual investors.

4.4 Management and Operational System

The company involved in the project have quality assurance system ISO 9001:2008^{/14/} implemented; therefore the assessment team can confirm that the management system the VCS project is in place; with the responsibilities properly identified and in place.

The company involved has assigned personnel with proper roles and responsibilities in the project and the same is as per the registered VCS PDD^{/1/}. During the site visit, the roles and responsibility for data monitoring and management have been checked. It was also found during the interview with plant personnel that project has a defined well responsibility matrix and execution system to ensure the quality of VCS monitoring system. The same was found acceptable; therefore the assessment team can affirm that the management system of the VCS project is in place; with the responsibilities properly identified and in place.

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

5 VERIFICATION CONCLUSION

The scope of the verification

We, SGS have been engaged by Enercon (India) Limited to certify that the greenhouse gas (GHG) emission reductions reported for the “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited” for the period from 01/12/2011 to 30/09/2012 in the monitoring report Version 03 dated 29/01/2013 are eligible for issuance as Verified Carbon Units.

This engagement covers the verification of emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited.”, as well as an additional confirmation of the compliance of the VCS PD with the requirements of VCS Standard version 3.3.

Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for the defined reporting period.

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.

Conclusions of the verification

(a) SGS is an entity accredited by the United Nations Framework Convention on Climate Change (UNFCCC) to undertake certification and verification services in the sector in which the Project is undertaken. The accreditation is accepted by VCSA as indicated in Clause 5 of VCS Program Guide Version 3.3.

(b) The monitoring report, together with other information examined, was prepared as per the VCS Monitoring Report Template, Version 3.2.

(c) The information in the Monitoring Report together with other information examined by the assessment team, including all the information necessary to determine that the emission reductions achieved have been determined correctly.

(d) Based on the examination of the monitoring report and other relevant information, the project meets all the requirements of the VCS Standard Version 3.3.

(e) Based on our examination of the monitoring report and other relevant information, the claiming emission reductions during the monitoring period from 01/12/2011 to 30/09/2012 are verified as 64,008 tonnes CO₂ equivalent.

Liability statement with regards to the accuracy of the verification statement

The management of Enercon (India) Limited is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions. SGS is responsible for verification and confirming emission estimates for the project, as described in the monitoring report.

Our certification approach draws on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Our examination includes an assessment of evidence, through desk review, and where necessary, interviews, stakeholder discussions and site visits, relevant to certifying the rightfulness of the amounts and disclosures in relation to the Project's GHG emission reductions.

We planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that the amount of GHG emission reductions for the given period, prepared on the basis of the monitoring report, are fairly stated.

This assessment included:

- Collection of evidence supporting the reported data;
- Checking whether the provisions of the Monitoring Plan in the registered VCS PDD, were consistently and appropriately applied;
- Site visit and interview of relevant staff.

We have verified whether the information included in the monitoring report representing the emission reductions achieved has been determined correctly for the given period from the baseline figure.

Certification statements

Based on process and procedures conducted, in our opinion, the monitoring report Version 03 dated 29/01/2013 on emission reductions for "44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India limited." during the reporting period from 01/12/2011 to 30/09/2012 is materially correct and is a fair representation of the GHG data and information and the emission reductions are fairly stated. All relevant facts have been found correct by our examination. The GHG emission reductions calculation is correct.

Therefore, SGS is able to certify that the project is in full compliance with the VCS Standard Version 3.3, and the quantity of the reported emission reductions during below reporting period are completely, comparably, accurately and correctly reported.

(1) Reporting period: From 01/12/2011 to 30/09/2012

Verified GHG emission reductions or removals in the above reporting period:

GHG Emission Reductions or Removals	tCO₂e
Baseline Emissions	64,008
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	64,008

Statement of Confidentiality

SGS will hold all information confidential until the client instructs otherwise or until it has been released in accordance with the VCS Standard Version 3.3 requirements.

Signed on behalf of the Verification Body by Authorized Signatory

SGS United Kingdom Limited

Dated: 12/02/2013

12/02/2013

Signature:

Signature:

Kodialbail SR

Shivaji

Lead Assessor

Technical Reviewer

Sudeep Kodialbail

Shivaji Chakraborty

ANNEX 1: DOCUMENT REFERENCES

/1/	Registered VCS PD version 01 dated 16/09/2009
/2/	ACM0002 version 10 valid from 11/06/2009
/3/	Monitoring report /3.1/ Version 01 dated 03/12/2012 /3.2/ Version 02 dated 31/12/2012 /3.2/ Version 03 dated 29/01/2013
/4/	CER calculation excel sheet /4.1/ Version 01 dated 03/12/2012 /4.2/ Version 02 dated 31/12/2012
/5/	Invoices for the project activity covering the current monitoring period
/6/	Joint Meter Reading for all WTGs including project activity for the current monitoring period
/7/	SCADA system reading for project activity and total generation of all WTGs and log book records
/8/	CEA data for emission factor www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm
/9/	<u>VCS Project Webpage:</u> Validation Report dated 13/11/2009 First Verification Report dated 27/05/2010 Second Verification Report dated 05/04/2011 Third verification Report dated 12/05/2012
/10/	Calibration Certificates for the substation meters covering the current monitoring period
/11/	Commissioning Certificates from Maharashtra State Electricity Distribution Company (MSEDCL)
/12/	Power Purchase Agreement signed between Entities involved (other investors) and MSEDCL
/13/	The Gazette of India (Registered NO. DL (N) – 04/0007/2003 – 15) dated 26/07/2010
/14/	ISO 9001: 2008 Certificate (Ref. QS-898HH) dated 08/02/2010
/15/	Validation and Verification Standard, version 3.0
/16/	No objection certificate from MEDA (Ref. PGN-I/Panama Wind Energy/1.60 MW/2010-2011/ISO) dated 11/01/2011
/17/	CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006
/18/	VCS Standard Version: v3.3

ANNEX 2: OVERVIEW OF FINDINGS

Summary

	CARs	CLs	FARs
Total Number raised	3	-	-

Date:	29/12/2012	Raised by:	Assessment Team		
Type:	CAR	Number:	#1	Reference:	Checklist
Lead Assessor Comment:				Date: 19/12/2012	
1. In the table in section 1.7 of the MR version1 dated 03/12/2012, PP is requested to clarify why a range of coordinates is mentioned (in some cases) for a single WTG. 2. PP is requested to clarify the inconsistency in the value of $EF_{grid, y}$ in sections 3.1 & 4.1 of the MR and the spreadsheet. 3. PP is requested to clarify the inconsistency in the value of $EG_{Export, y}$ and $EG_{y, net}$ between the MR and the spreadsheet. 4. Section 3.3 of the MR Version 1 dated 03/12/2012 mentions that a deviation is taken from the current monitoring period. Please clarify if this is appropriate. 5. A meter change has been observed compared to the previous monitoring period i.e. Meter no. 04862989 has been replaced by 04862983 on 27/02/2012. The same is not reflected in the MR Version 1 dated 03/12/2012 for the current monitoring period.					
Project Participant Response:				Date: 31/12/2012	
1. The range of WECs for Atlas Tours & Travels Pvt. Ltd, Shah Lulla Estate Developers, Liberty Oil Mills Ltd., & G. B. Rubber Products are same as per the MR and in the validated PD. This range has been provided for all the WECs which are located to Kadvekhurd site. This range is not specified for the single WECs. 2. The inconsistencies in the value of $EF_{grid, y}$ in sections 3.1 & 4.1 of the MR and the spreadsheet have been corrected. 3. The inconsistency in the value of $EG_{Export, y}$ and $EG_{y, net}$ between the MR and the spreadsheet been corrected. 4. No deviation has been sought in this monitoring period. The monitoring plan mentioned in the MR is in line with the 3rd verification. The editorial error has been corrected in the MR. 5. The meter change details has been incorporated in the MR.					
Documentation Provided as Evidence by Project Participant:					
Revised MR & Excel sheet					
Information Verified by Lead Assessor:					
Revised MR Version 2 dated 31/12/2012 and excel spreadsheet Version 2					
Reasoning for not Acceptance or Acceptance and Close Out:					

1. The range of co-ordinates mentioned in the registered VCS PD and the table in section 1.7 of the MR version1 dated 03/12/2012 is for WTGs of the following customers: Atlas Tours & Travels Pvt. Ltd, Shah Lulla Estate Developers, Liberty Oil Mills Ltd., & G. B. Rubber Products. All the WTGs of these customer are present in the Kadvekhurd site and the range reflects the location of all WTGs. This was checked and confirmed during the site visit with the personnel at the site. Hence accepted and closed out.
2. The value of $EF_{grid,y}$ has now been consistently used as 0.9058975 in sections 3.1 & 4.1 of the MR and the spreadsheet. Hence accepted and closed out.
3. The values of $EG_{Export,y}$ and $EG_{y,net}$ are now consistent between the MR and the spreadsheet. This has been checked and confirmed. Hence accepted and closed out.
4. The PP has clarified that no deviation has been sought in the current monitoring period. A deviation was sought and approved in the 3rd monitoring period and the monitoring plan mentioned in the MR Version 2 dated 31/12/2012 is in line with the monitoring plan mentioned in registered VCS PD and the deviation sought during the 3rd verification. The PP has reflected the same in Section 3.3 of the MR Version 2 dated 31/12/2012. The final MR and verification report for the 3rd monitoring period has been checked to confirm the deviation. Hence accepted and closed out.
5. The meter change observed during the site visit (i.e. Meter no. 04862989 replaced by 04862983) is now reflected in section 3.3 of the MR Version 2 dated 31/12/2012. The meter details mentioned in the MR is consistent with the observations during the site visit. The meter change certificate has also been checked to confirm the same. Hence accepted and closed out.

CAR #1 closed out.

Acceptance and Close out by Lead Assessor:	Date: 05/01/2013
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Date:	29/12/2012	Raised by:	Assessment Team		
Type:	CAR	Number:	#2	Reference:	Excel Spreadsheet
Lead Assessor Comment:				Date: 29/12/2012	
Excel spreadsheet tab titled “VER Calculation & Generation” - Cells G34; P31; Q31; Y30; AH31; AI31 – The values are inconsistent with the source.					
Project Participant Response:				Date: 31/12/2012	
Excel spreadsheet tab titled “VER Calculation & Generation” - Cells G34; P31; Q31; Y30; AH31; AI31 – The values are corrected.					
Documentation Provided as Evidence by Project Participant:					
Revised Excel sheet					
Information Verified by Lead Assessor:					
Revised excel spreadsheet version 2 dated 31/12/2012 has been checked for the revisions made by the PP to the values in cells G34; P31; Q31; Y30; AH31; AI31 of the tab titled “VER Calculation & Generation”					
Reasoning for not Acceptance or Acceptance and Close Out:					
The values in the cells G34; P31; Q31; Y30; AH31; AI31 of the tab titled “VER Calculation & Generation” have been checked against the source and found to be consistent. Hence accepted and closed out.					
CAR #2 closed out					
Acceptance and Close out by Lead Assessor:				Date: 05/01/2013	

Date:	29/01/2013		Raised by:	Assessment Team		
Type:	CAR	Number:	#3		Reference:	TR comments
Lead Assessor Comment:				Date: 29/01/2013		

1. The report ID has not been mentioned on the title page of the MR. 2. Section 3.2 and section 3.3 of the MR describes the parameters $EG_{import,y}$ and $EG_{export,y}$ as measured as well as calculated parameters. PP is requested to clarify this inconsistency. 3. In section 4.4 of the MR, the vintage wise VCU table, the first vintage mentioned is December 2012. Please clarify. 4. In section 5 of the MR it is observed that there is an increase in actual VCU as compared to the estimated values in PDD. But the information provided in this section does not confirm the same. Please clarify. 5. The value of net electricity supplied to the grid is inconsistent in MR (Section 1.1 and 3.2). Hence CAR #3 is open	
Project Participant Response:	Date: 29/01/2013
1. Project ID number has been incorporated in the MR. 2. PP has revised the description of the parameters $EG_{import,y}$ and $EG_{export,y}$ and Section 3.2 & 3.3 have been made consistent. 3. In section 4.4 of the MR, the vintage wise VCU table has been revised. Dec 2012 is corrected to Dec 2011. 4. Section 5 of the MR has been revised. 5. The value of net electricity supplied to the grid is made consistent in the MR.	
Documentation Provided as Evidence by Project Participant:	
Revised MR	
Information Verified by Lead Assessor:	
MR version 3 dated 29/01/2013 has been checked for the revisions made by the PP.	
Reasoning for not Acceptance or Acceptance and Close Out:	
1. PP has now mentioned the report ID on the title page of the MR which is appropriate. Hence accepted. 2. PP has now revised the description of the parameters $EG_{import,y}$ and $EG_{export,y}$ in Section 3.2 & 3.3 of the MR. These parameters are calculated by the state utility using the formulae mentioned in section 3.3 of the MR. This process is not in control of the PP. This description is consistent with the actual process on site and clarifies the procedure mentioned in the MR. Hence accepted and closed out. 3. PP has revised the vintage wise VCU table in section 4.4 of the MR to correctly reflect the month December 2011. Hence accepted and closed out. 4. The PP has revised section 5 of the MR to correctly mention that there is an increase in actual VCU as compared to the estimated values in PDD. Hence accepted. 5. PP has revised the value of net electricity supplied to the grid in section 1.1 of the MR to make it consistent throughout the MR. Hence accepted.	
CAR #3 closed out.	
Acceptance and Close out by Lead Assessor: Closed	Date: 31/01/2013

ANNEX 3: TEAM MEMBERS STATEMENTS OF COMPETENCY

Name: Sudeep
Kodialbail

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	X
Technical Area(s): TA 1.2 Energy generation from renewable energy sources	
2. Energy Distribution	
Technical Area(s):	
3. Energy Demand	
Technical Area(s):	
4. Manufacturing	
Technical Area(s):	
5. Chemical Industry	
Technical Area(s):	
6. Construction	
Technical Area(s):	
7. Transport	
Technical Area(s):	
8. Mining/Mineral Production	
Technical Area(s):	
9. Metal Production	
Technical Area(s):	
10. Fugitive Emissions from Fuels (solid, oil and gas)	
Technical Area(s):	
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	
Technical Area(s):	
12. Solvent Use	
Technical Area(s):	
13. Waste Handling and Disposal	
Technical Area(s):	
14. Afforestation and Reforestation	
Technical Area(s):	
15. Agriculture	
Technical Area(s):	
Approved Member of Staff by: Siddharth Yadav	Date: 06/02/2012

Name: Ravi Kant
Soni

Status

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

Scopes of Expertise

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

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

Name: Shivaji Chakraborty

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)

x

Technical Area(s):

TA 1.1 Thermal energy generation from fossil fuels and biomass including thermal electricity from solar

TA 1.2 Energy generation from renewable energy sources

2. Energy Distribution

x

Technical Area(s): TA 2.1 Electricity distribution

TA 2.2 Heat distribution

3. Energy Demand

x

Technical Area(s): TA 3.1 Energy Demand

4. Manufacturing

Technical Area(s):

5. Chemical Industry

Technical Area(s):

6. Construction

Technical Area(s):

7. Transport

Technical Area(s):

8. Mining/Mineral Production

Technical Area(s):

9. Metal Production

Technical Area(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)

Technical Area(s):

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride

Technical Area(s):

12. Solvent Use

Technical Area(s):

13. Waste Handling and Disposal

Technical Area(s):

14. Afforestation and Reforestation

Technical Area(s):

15. Agriculture

Technical Area(s):

Approved Member of Staff by: Siddharth Yadav Date: 19/09/2012