



Voluntary Carbon Standard 2007
Validation Report Template

19 November 2007

Validation Report:

Name of Verification company:	Date of the issue:
Bureau Veritas Holding SAS	30-10-2009
Report Title:	Approved by:
Validation Report of "150 MW grid connected Wind Power based electricity generation project in Gujarat, India"	H. B. Muralidhar
Client:	Project Title:
DLF Limited	150 MW grid connected Wind Power based electricity generation project in Gujarat, India
Summary:	

Bureau Veritas Certification has made the VCS validation of the "150 MW grid connected Wind Power based electricity generation project in Gujarat, India" project of DLF Limited located at Kutch in state of Gujarat, India on the basis of Voluntary Carbon Standard 2007.1. The supplementary validation was carried out for the sections of VCS PD as defined by VCS policy announcement dated 19 March 2008.

The validation scope is defined as an independent and objective review of the respective sections of project document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The project was validated based on the final validation report submitted to UNFCCC along with request for registration, as the project is already registered as CDM project activity with reference no. 2347. The overall supplementary validation was conducted using Bureau Veritas Certification internal procedures.

In summary, it is Bureau Veritas Certification's opinion that as the project has correctly applied the baseline and monitoring methodology ACM0002 version 07 and registered under CDM it also complies VCS criteria as CDM is approved program under VCS and the relevant host country criteria.

Work carried out by:	Number of pages:
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Abbreviations

VER	Voluntary Emission Reduction
VCU	Voluntary Carbon Unit
BMS	Bureau Veritas Certification's Management System
CAR	Corrective Action Request
CL	Clarification Request
FAR	Forward Action Request
CO ₂	Carbon Dioxide
DOE	Designated Operational Entity
DR	Document Review
GHG	Green House Gases
I	Interview
IETA	International Emissions Trading Association
MV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non Governmental Organisation
PD	Project Document
UNFCCC	United Nations Framework Convention for Climate Change
CDM	Clean Development Mechanism
HCA	Host Country Approval
MU	Million Units
KW	Kilowatt
KWh	Kilowatt-hour
MW	Megawatt
MWh	Megawatt-hour
EF	Emission factor
GUVNL	Gujarat Urja Vikas Nigam Limited
PPA	Power Purchase agreement
JMR	Joint Meter Reading
CEA	Central Electricity Authority
DLF	DLF Limited
GSEB	Gujarat State Electricity Board
WTG	Wind Turbine Generator
PO	Purchase Order

1 Introduction

1.1 Objective

The validation serves as project design verification and is a requirement of all projects. The validation is an independent third party assignment of the project design. The validation team objected to carry out a supplementary validation of clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of VCS project document as guided in policy announcement dated 19 March 2008, as the project is already registered as a CDM project activity with UNFCCC. Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of voluntary emission reductions (VERs) or voluntary carbon units (VCUs). In addition the validation team also verified the application of the Monitoring Plan as explained in the CDM PDD.

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the project document, the project's baseline and monitoring plan and other relevant documents. The information in these documents is reviewed against criteria as described under VCS 2007.1 standard.

As per the policy announcement of VCSA dated 19 March 2008, only a supplementary validation is carried out for for clause nos. 1.12, 1.13, 1.14, 8.1 and 8.2 of VCS PD for all projects registered under CDM.

The validation team was provided a VCS PD along with other relevant documents. Based on this documents and review and interviews performed, a supplementary validation was conducted for the above said clauses of VCS PD and a reported.

1.3 VCS project Description

The project activity involves the installation of a wind farm of 150 MW installed capacity by 100 nos. of Wind Turbine Generators (WTGs) each of 1.5 MW capacity. All WTGs installed by the project proponent are distributed across the Kutch region in the villages of Lathedi, Jakhau, Nani Sindhodi, Moti Sindhodi, Chachhi, Sandhan, Budhia, Ranpar, Rapargarh, Sayra, Suthari, Vanku, Dhutai, etc. in state of Gujarat, India.

The electricity generated by the wind farm will be exported to the western regional grid of India. The project activity will evacuate approximately 348 million units of renewable power annually to the western regional grid of India.

The purpose of the project activity is to generate electricity using renewable wind energy and sell it to State Electricity Board (SEB) of Gujarat.

Emission reductions are estimated based on the net electricity supplied to grid and combined margin emission factor for the grid being supplied.

1.4 Level of assurance

The validation report is based on the documents made available to validator and information provided during interviews. Based on the process and procedures conducted for supplementary validation, it can be concluded that the GHG assertion is realistic and measurable. The project activity complies the guidelines/criteria provided by VCS association.

2 Methodology

The overall supplementary validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the validation template provided by VCSA. The protocol provides to the validation team, in a transparent manner, the criteria (requirements), means of verification and the results from verifying the identified criteria. A supplementary validation covering clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of VCS PD was carried out as per the guidelines provided by VCSA. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a VCS project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of clarification and corrective actions required for the outstanding issues by validation team as provided in Annexure - II.

2.1 Review of Document

The validation team was provided with VCS Project Document along with other relevant documents, CDM PDD (registered), earlier validation report, etc. The documents were reviewed off-site and on-site assessment of the VCS PD and other related documents was carried out from 5 October 2009 to 6 October 2009.

The documents provided by DLF Limited (project proponent) including VCD PD and additional background documents related to VCS PD, guidelines for completing VCS PD (VCS 2007.1 standard), approved methodology; clarifications on validation requirements to be checked by Designated Operating Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests DLF Limited revised the VCS PD and resubmitted it on 14 October 2009.

The validation findings presented in this report relate to the project as described in the VCS PD dated 14 October 2009.

This version of the Project Document is in line with the latest format for the VCS PD and guidance for completion of the VCS PD as provided by VCS 2007.1 standard.

2.2 Follow-up Interviews

On 5 October 2009 through 6 October 2009 Bureau Veritas Certification performed site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of DLF Limited were interviewed (see Annexure - III of this report).

2.3 Resolution of any material discrepancy

The objective of this phase of the supplementary validation is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification conclusion on the project design.

3 Validation Findings

3.1 Project Design

The project activity is registered as CDM project activity by CDM-EB from 18 June 2009 with reference no. 2347. The registered PDD was used during the course of supplementary validation and the technology used is validated at site as described in registered PDD.

The project activity was registered under CDM of UNFCCC on 18 June 2009. Thus, the crediting period for the Certified Emission Reductions (CER) will start from 18 June 2009. The project activity will be eligible to claim their Voluntary Emission Reduction (VER) for the period prior to the date of registration and starting from the date of commissioning of first WTG i.e. 30 September 2007. Thus, crediting period for the project activity under VCS registration would be from 30 September 2007 to 17 June 2009.

3.2 Baseline

This section of the protocol has been validated using the documents available at the UNFCCC website including registered PDD, registered CDM validation report, estimated ER calculations, etc.

As the project activity is registered, PDD and final CDM validation report is used to conclude the correct application of baseline methodology and selection of baseline scenario. The additionality is also assessed found that the GHG reduction as additional to those that would have been occurred in absence of project activity using the CDM validation report and registered PDD for project reference no. 2347.

3.3 Monitoring Plan

As described in section 3.2 above, the baseline and monitoring methodology for VCS registration has been validated using the PDD and final validation report as available on UNFCCC website. Since, the project activity is registered under CDM with UNFCCC, it does not require further validation of monitoring methodology and considered to be validated with reference to registered project.

The validation team however identified the inadequacies of the monitoring plan described in the registered PDD

and corrective actions/clarifications were raised (Refer Annexure-II). The Project Participant revised the Monitoring Plan addressing the apportioning requirement. The revised Monitoring plan is included the VCS PD and Validation Team validated and confirms that the current plan is in accordance with the applied methodology and is adequate to address the apportioning of data at a situations where the Monitoring period is not coinciding with the dates of the corresponding GEDA Share Certificate.

The Project Participant informed the Verification Team that appropriate actions are being undertaken to initiate the revision to the Monitoring Plan in the registered PDD under CDM.

3.4 Calculation of GHG Emissions

The estimated calculations of emission reduction provided in registered PDD of project reference no. 2347 was continued and concluded to be appropriate for the calculation of actual emission reduction occurred during the vintage from 30 September 2007 to 17 June 2009. There are no uncertainties observed during site visit.

3.5 Environmental Impact

As the project activity is registered as CDM under UNFCCC, validation of this section is not required as per the policy announcement of VCS Association dated 19 March 2008.

3.6 Comments by stakeholders

As the project activity is registered as CDM under UNFCCC, validation of this section is not required as per the policy announcement of VCS Association dated 19 March 2008.

4 Validation conclusion

The project activity meets criteria of CDM under UNFCCC for the achieving estimated emission reductions. CDM is one of the approved programs under VCS Association. However, a supplementary validation of clause no. 1.12, 1.13, 1.14, 8.1 and 8.2 along with revision to monitoring plan was carried out to confirm that project is likely to achieve estimated emission reduction, which would not have been reduced in absence of the project activity.

Annexure - I

Documents referred during supplementary validation

Reference	Documents
PD	VCS Project Document, dated 09/09/2009
CDM-PDD	CDM PDD as registered under CDM of UNFCCC wide project reference no. 2347
VCS-PD	Guidelines for completion of VCS Project Document
Pann.	Policy Announcement of VCS Registry dated 19 March 2008
VR	Final validation report as per registered project reference no. 2347
ER	Estimated emission reduction calculation as per registered project reference no. 2347.
HCA	Host country approval letter reference no. 4/24/2007-CCC dated 21/07/2008
Reg	Proof of registration as CDM Project activity
Comm	Commissioning Reports for all WTGs (150 MW) throughout the monitoring period
VER	VER Calculation Spreadsheet
LineDia	Line Diagrams of wind mills along with metering system

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Annexure - II

Details of corrective actions and clarification requested

Corrective Action / Clarification	Reference / Section	Response from Project Proponent	Conclusion
Formatting of the "Title Page and Table of Content" with respect to detailed content of the PD is not correct.	Applicable to entire document	Corrected in revised VCS PD dated 14/10/2009.	OK
Fonts used in each applicable section are not as per the format provided by VCSA.	Applicable to entire document	Corrected in revised VCS PD dated 14/10/2009.	OK
Project title is not indicated as per registered CDM Project.	Section 1.1	Indicated in revised VCS PD dated 14/10/2009.	OK
VCS PD is not prepared as per the latest policy announcement of VCSA.	Section 1.15, 3.3, 3.4	Entire VCS PD is now prepared for applicable clauses.	OK
Demonstration of Section 1.12 is not correctly described as per the requirement of VCS Association.	Section 1.12	Description of section 1.12 is corrected in revised VCS PD dated 14/10/2009.	OK
Demonstration of Section 1.13 is not correctly described as per the requirement of VCS Association.	Section 1.13	Description of section 1.13 is corrected in revised VCS PD dated 14/10/2009.	OK
Demonstration of Section 1.14 is not correctly described as per the requirement of VCS Association.	Section 1.14	Description of section 1.14 is corrected in revised VCS PD dated 14/10/2009.	OK
Demonstration of Section 3.3 is not indicated properly.	Section 3.3	Corrected as per template of VCS PD in revised VCS PD.	OK
Demonstration of Section 3.4 is not indicated properly.	Section 3.4	Corrected as per template of VCS PD in revised VCS PD.	OK
Proofs of title are not completely mentioned.	Section 8.1	Included HCA as one of the proof of title.	OK
Monitoring plan described in the Registered PDD of the Project Activity inadequate to address	Section 3.4	Monitoring Plan is revised to address the said situations. The revised	OK

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Corrective Action / Clarification	Reference / Section	Response from Project Proponent	Conclusion
the situations where the dates of monitoring do not coincide with the dates of GEDA Share Certificate		Monitoring Plan is included in VCS PD under section 3.4	

Annexure - III

Following persons from various organisations were interviewed during site visit by validation team.

Sr. No.	Name of Person	Name of Organisation
1	Dr. Sanjay Vashishtha (General Manager-Buss. Dev)	DLF Utilities Limited
2	Mr. Kaushik Bhattacharya (Asst. Manager-Buss. Dev)	DLF Utilities Limited
3	Mr. Ujjwal Surana (Dy. Manager - CRM)	Suzlon Infrastructure Services Limited
4	Mr. B. M. Andharia (In- Charge - Nani Sindhodi S/S)	Suzlon Infrastructure Services Limited
5	Mr. Samar (Engineer - Nani Sindhodi S/S)	Suzlon Infrastructure Services Limited
6	Mr. Ajay Mankadia (In- Chareg - Vanku S/S)	Suzlon Infrastructure Services Limited
7	Mr. Mehul Sarkhedi (In- Charge - Suthari S/S)	Suzlon Infrastructure Services Limited
8	Mr. Aakash Devkatre (Engineer - Suthari S/S)	Suzlon Infrastructure Services Limited