



Voluntary Carbon Standard 2007
Validation Report

19 November 2007

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Bureau Veritas Certification SAS	11/05/2009
Report Title:	Approved by:
VCS Validation report for Acciona Wind Energy Pvt. Ltd.	Mr. Dinesh Shetty
Client:	Project Title:
Acciona Wind Energy Pvt. Ltd.	29.7 MW Wind Power project in Karnataka, India.

Summary:

Bureau Veritas Certification has made the validation of the 29.7 MW Wind Power project in Karnataka, India by Acciona Wind Energy Pvt.Ltd. located at Villages Anabaru and Arasinagundi in the Jagalur Taluk in the district of Davangere, in the Indian state of Karnataka on the basis of Voluntary Carbon Standard-2007.1, as well as criteria given to provide for consistent project operations, monitoring and reporting, as well as the host country criteria.

The validation scope is defined as an independent and objective review of the project description document and other relevant documents, and consisted of the following three phases: i) desk review of the project description 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 overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

Since the said project is already validated and registered as a CDM project with the UNFCCC (Project reference number: 1949), the scope of this validation report is limited to clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description, as per the policy announcement from the VCS Association dated 19th March 2008.

The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project description document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology ACM 0002, Version 6 and meets the relevant VCS 2007.1 requirements and the relevant host country criteria.

Work carried out by:	Number of pages:
Mr. H B Muralidhar and Mr. R. Reghu Kumar	16

Sl no	Description	Page no
1	<i>Introduction</i>	4
	1.1 <i>Objective</i>	4
	1.2 <i>Scope and criteria</i>	4
	1.3 <i>V C S Project description</i>	5
	1.4 <i>Level of assurance</i>	5
2	<i>Methodology</i>	5
	2.1 <i>Review of document</i>	5
	2.2 <i>Follow-up interviews</i>	6
	2.3 <i>Resolution of any material discrepancy</i>	6
3	<i>Validation findings</i>	6
	3.1 <i>Project design</i>	6
	3.2 <i>Baseline</i>	10
	3.3 <i>Monitoring plan</i>	10
	3.4 <i>Calculation of GHG emissions</i>	11
	3.5 <i>Environmental impact</i>	11
	3.6 <i>Comments by stakeholders</i>	11
4	<i>Validation conclusion</i>	11
	<i>Appendix A - Abbreviations</i>	13
	<i>Appendix B - References</i>	14
	<i>Appendix C - Curricula vitae of the DOE's validation team members</i>	16

1 Introduction

Acciona Wind Energy Pvt.Ltd has commissioned Bureau Veritas Certification to validate its VCS project "29.7 MW Wind Power project in Karnataka, India" (project activity) located at Villages Anabaru and Arasinagundi in the Jagalur Taluk in the district of Davangere, in the Indian state of Karnataka on the basis of Voluntary Carbon Standard-2007.1.

This report summarizes the findings of the validation of the project, performed on the basis of Voluntary Carbon Standard-2007.1, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The validation serves as project description verification and is a requirement of all VCS projects. The validation is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant VCS 2007.1 and host country criteria are validated in order to confirm that the project description, as documented, is sound and reasonable, and meets the stated requirements and identified criteria. 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 carbon units (VCUs).

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the project description, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against VCS 2007.1 requirements and associated interpretations.

Since the said project is already validated and registered as a CDM project with the UNFCCC (Project reference number: 1949), the scope of this validation report is limited to clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description as per the policy announcement from the VCS Association dated 19th March 2008.

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

1.3 VCS project Description

Acciona Wind Energy Pvt. Ltd. (AWEPL) is an Indian Company and a 100% subsidiary of the Spanish Acciona group of companies, i.e. Acciona Energia Internacional, S.A. and Acciona, S.A. AWEPL has implemented the project with 18 Wind Turbines of 1.65 MW capacity each delivered by Vestas Wind Technology India Pvt. Ltd, totaling a capacity of 29.70 MW at Villages Anaburu and Arasinagundi (latitude and longitude of around 14°28' - 14°34' N and 76°20' - 76°23' E) in the Jagalur Taluk in the district of Davangere, in the Indian state of Karnataka. The project activity involves the development and operation of wind based electricity generation facilities to be connected to the grid. The objective of the project activity is to provide renewable power to the Karnataka State electricity grid and reduce greenhouse gas emissions caused by reliance on fossil fuels. The project will lead to reduced greenhouse gas emissions as it will displace electricity from fossil fuel based electricity generating systems. The project proponent and the project owner for this project activity is the one and the same and it is Acciona Wind Energy Pvt. Ltd.

1.4 Level of assurance

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 emission reductions.

2 Methodology

The overall validation, from Contract Review to Validation report & opinion, was conducted using Bureau Veritas Certification internal procedures. Since the said project is already validated and registered as a CDM project with the UNFCCC (Project reference number: 1949), the scope of this validation report is limited to clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description as per the policy announcement from the VCS Association dated 19th March 2008.

2.1 Review of Document

Validation team validated the accuracy of the project description through a combination of steps consisting of review of contract related to the project activity, commissioning certificates for the WTGs, site visit and interview of the project proponent and their representatives.

2.2 Follow-up Interviews

On 23/03/2009 and 24/03/2009 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 Acciona Wind Energy Pvt. Ltd were interviewed (see References). The main topics of the interviews are summarized in Table below.

Interviewed organization	Interview topics
Acciona Wind Energy Pvt.Ltd	<ul style="list-style-type: none"> ➤ Project description ➤ Contribution of Project towards Sustainable Development ➤ Operational aspects ➤ Monitoring plans and Procedures. ➤ QA/ QC Procedures ➤ Internal review / verification mechanism ➤ Monitoring plans
Vestas Wind Technology India Pvt Ltd	<ul style="list-style-type: none"> ➤ Operation and maintenance aspects

2.3 Resolution of any material discrepancy

The validation team could not see any material discrepancy during the validation, as the project is already registered under CDM.

3 Validation Findings

3.1 Project Design

A. The technology used in the project activity

Project activity involves installation of wind turbines and export electricity to grid. The main purpose of the project activity is to reduce the GHG gas emissions by generating clean electricity from wind energy. Acciona Wind Energy Pvt. Ltd has installed 18 Wind Turbine Generators (WTGs) of capacity 1650 kW each of Vestas V 82 make at Arasinagundi and Anaburu villages in the Jagalur Taluk in the district of Davangere, in the state of Karnataka, India. The generated electricity is exported to the southern grid.

B. Project duration, crediting time and project start date

The lifetime of the project activity is 20 years as said in the registered PDD under CDM. Under VCS, the first project-crediting period will be from 6th June 2008 to 31st May 2018 with the possibility to renew this period twice. Project developer intended to go for VERS from 6th June 2008 till 21st November 2008 initially, since the first calibration post CDM registration was done along with taking the meter reading on this date. The project proponent will apply for VERS for the generation prior to this meter reading and for CERs subsequently. The project proponent will re-apply to the VCS before the end of the first crediting period in order to generate VCUs from 20th November 2018 onwards. It is assured by the project proponent that in no case there will be any double counting of the emission reductions.

The monitoring period considered for this VCS validation is from 6th June 2008 to 21st November 2008 (both days inclusive). As per VCS guidance document, Project start date means the date that the project began reducing or removing GHG emissions. The validation team during site visit confirmed that all the eighteen WTGs as said in the PDD are commissioned and in operation. The 8 WTGs at Arasinagundi were commissioned on 06/06/2008 and the other 10 WTGs at Anaburu were commissioned on 29/09/2008. This is verified through the commissioning certificates issued by KPTCL on 12/06/2008 and 30/09/2008 respectively. As such, the project start date is 06/06/2008, the date of commissioning of the first set of WTGs at Arasinagundi.

C. Ownership

Proof of title

The project proponent and the project owner for this project activity are one and the same and it is "Acciona Wind Energy Pvt. Ltd ". Please refer section 8.1 below.

D. Double counting and whether the project participated in another emission trading programme

The project activity is already registered as a CDM project on 20th November 2008 with UNFCCC Reference no:1949 under the project title " 29.7 MW Wind Power project in Karnataka, India". However the crediting time chosen for this VCS validation is from 6th June 2008 to 21st November 2008. The project proponent has opted to claim under VCS the emission reductions from the project start date ie 06/06/2008 to the point wherein they have done the calibration of the meters on 21st November 2008. The readings prior to the calibration are recorded and

certified by the BESCO and KPTCL officials. The project proponent further confirmed that the generation further to this calibration will only be considered for the accounting of emission reductions under CDM, thereby avoiding any double counting. The validation team verified the calculations of emission reductions with the Joint meter readings for the various months and also the calibration certificates.

E. Project applicability to the VCS for projects rejected under other GHG programme (if applicable)

This project is not rejected under other GHG programmes. The project activity is already registered as a CDM project on 20th November 2008.

F. Whether the project is eligible under the VCS

Since the project activity is grid-connected electricity generation from renewable sources (wind energy) and the project owner has opted for the validation within two years from the project start date as defined under VCS 2007.1 and hence the project is eligible under VCS.

G. Validation of clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description

1.12 Demonstration to confirm that the project was not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction.

This renewable energy project of Acciona Wind Energy Pvt. Ltd installed at Arasinagundi and Anaburu villages is generating electricity through wind power and the generation is connected to the southern regional grid of India. This project activity therefore will reduce greenhouse gas emissions by displacing equivalent amount of fossil fuel based electricity generation and will not produce greenhouse gas emissions. Thus it is confirmed that the project is not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction.

1.13 Demonstration that the project has not created another form of environmental credit (for example renewable energy certificates).

Since this project is already registered under CDM (project reference number: 1949) with fixed crediting period of 10 years, AWEPL is eligible to receive Certified Emission Reductions from the UNFCCC from the date of its registration i.e November 20th 2008; ([http://cdm.unfccc.int/Projects/DB/DNV/CUK1216117082.43 /view](http://cdm.unfccc.int/Projects/DB/DNV/CUK1216117082.43/view)). AWEPL has committed in the VCS PDD that it will take the necessary steps to assure that VCU's and

CERs are not claimed for the same electricity generation and that AWEPL understands that it cannot generate VCUs and CERs simultaneously as that is considered 'double counting' and embraces its responsibility to protect the integrity of the environmental programs to which it applies. There are no other environmental credits similar to renewable energy certificates that the project creates for the VCU period.

The project activity is eligible to claim VCUs from 6th June 2008 to 31st May 2018 with the possibility to renew this period twice. Project developer will go for VERCs from 6th June 2008 till 21st November 2008 since the first calibration post CDM registration was done along with taking the meter reading on this date. AWEPL has stated in the VCS PDD that it will apply for VERCs for the generation prior to this meter reading and for CERs subsequently. Further AWEPL will re-apply to the VCS before the end of the first crediting period in order to generate VCUs from November 20th 2018 onwards, thus ensuring that there is no double counting.

1.14 Project rejected under other GHG programs (if applicable):

The project has not applied for any other GHG programmes other than the CDM and VCS. The project is already registered under the CDM programme on November 20th 2008 (Project Reference Number: 1949).

The project activity is generation of electricity by clean wind power and export of the generated power to the grid, thereby displacing equivalent amount of power generated by fossil fuel based power plants. Thus the project activity will lead to real emission reductions. These emission reductions are quantifiable and the project applies approved methodology by UNFCCC (ACM0002, Version 06) for the same. There is no risk of reversibility of the GHG emission reductions/removals. The project activity has already demonstrated additionality and hence registered as CDM project with UNFCCC.

8. Ownership

8.1 Proof of Title:

The project proponent and the project owner for this project activity is "Acciona Wind Energy Pvt. Ltd ". It was noticed during the documentation review and site visit that as per the registered CDM - PDD, contracts for supply of equipments and maintenance, power purchase agreements with state utility and commissioning

certificates of the WTGs, the project proponent name is given as "Accion Wind Energy Pvt. Ltd " where as in the VCS monitoring report, it is mentioned as "Acciona Wind Energy Pvt. Ltd ". The team raised a CAR on this issue and the project proponent confirmed that there is no change in the ownership and only letter "a" is included in the first word of the project proponent's name. It is clarified by the project proponent that this correction in name has been effective since 21st November 2008 and this has been done to correctly reflect the holding company name. The verification team crosschecked this with the old and the new Memorandum of Articles of the company and the certificate of Incorporation from Registrar of Companies. The project proponent has also informed the Executive Board, UNFCCC on this matter and the project proponent on 09/04/2009 also submitted the revised MOC to UNFCCC. The UNFCCC has confirmed the receipt of the intimation regarding name change by the project proponent through its reply mail dated 09/04/09. The team confirmed this after verifying the e-mail correspondence the project proponent had with the UNFCCC. As such the ownership of the project activity is in the name of "Acciona Wind Energy Pvt. Ltd ".

8.2 Projects that reduce GHG emissions from activities that participate in an emissions trading program (if applicable):

The project is already registered under CDM and approved by the DNA of India, as it is voluntary participation. As such this project activity is not included in any emissions trading programme / take place in a jurisdiction or sector in which binding limits are established on GHG emissions.

3.2 Baseline

The project activity is already registered as a CDM project on 20th November 2008 with UNFCCC Reference no:1949 under the project title" 29.7 MW Wind Power project in Karnataka, India". Hence as per the VCS guidelines the baseline is not again validated. The project has applied the CDM approved methodology ACM0002, Version 06.

3.3 Monitoring Plan

The project activity is already registered as a CDM project on 20th November 2008 with UNFCCC Reference no:1949 under the project title" 29.7 MW Wind Power project in Karnataka, India". Hence in accordance with the VCS guidelines the same is not again validated. The project has applied the CDM approved methodology ACM0002,

Version 06 and the monitoring plan is in accordance with this approved methodology ACM0002, Version 06.

3.4 Calculation of GHG Emissions

The data used for calculation of the GHG emission reductions are the net electricity supplied to the grid by the project activity, which is contributed by the eighteen WTGs and the emission factor, which is fixed ex ante.

As per the methodology, the emission reduction is calculated as the product of net electricity supplied to the grid and the emission factor determined for the southern grid.

The source of the generation data of the WTGs is the joint meter readings (monthly generation reports in Form B) given to the project participant by the KPTCL. This being the certificate issued by the state utility and based on this only the project participant raises the invoices and receive payment for the electricity supplied to the grid from BESCO, this is considered authentic and reliable and there is no uncertainty envisaged.

The emission factor taken for the calculation of emission reductions (0.93 tCO₂/MWh) is determined ex-ante and fixed for the crediting period. This is as per the registered CDM- PDD and hence no uncertainty involved.

3.5 Environmental Impact

This project activity is only installation of windmills and electricity generation from the wind energy and export of the generated power to grid. As per the local regulations, wind mill projects are not covered under the Environmental Impact Assessment Notification.

3.6 Comments by stakeholders

This is not validated as the project activity is already registered as a CDM project on 20th November 2008 with UNFCCC Reference no: 1949 under the project title "29.7 MW Wind Power project in Karnataka, India".

4 Validation conclusion

Bureau Veritas Certification has performed a validation of the "29.7 MW Wind Power project in Karnataka, India" project of Acciona Wind Energy Pvt. Ltd. The validation was performed on the basis of VCS 2007.1 criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

Since the said project is already validated and registered as a CDM project with the UNFCCC (Project reference number: 1949), the scope of this validation report is limited to clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description as per the policy announcement from the VCS Association dated 19th March 2008.

By synthetic description of the project, the project is likely to result in reductions of GHG emissions partially. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. The project is likely to achieve the estimated amount of emission reductions.

The review of the CDM project design documentation (Version 02), project description document submitted by the project proponent, and the subsequent follow-up interviews has provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant VCS 2007.1 requirements for the VCS project activities and the relevant host country criteria. As such the team does not foresee any quantifications or limitations to be added to the validation outcome.

The validation is based on the information made available to us and the engagement conditions detailed in this report.

Appendix A

Abbreviations

<i>ACM</i>	<i>Approved Consolidated Methodology</i>
<i>AWEPL</i>	<i>Acciona Wind Energy Pvt. Ltd</i>
<i>BESCOM</i>	<i>Bangalore Electricity Supply Company</i>
<i>CAR</i>	<i>Corrective Action Request</i>
<i>CER</i>	<i>Certified Emission Reductions</i>
<i>CDM</i>	<i>Clean Development Mechanism</i>
<i>CL</i>	<i>Clarification Request</i>
<i>CO2</i>	<i>Carbon Dioxide</i>
<i>DOE</i>	<i>Designated Operational Entity</i>
<i>FAR</i>	<i>Forward Action Request</i>
<i>GHG</i>	<i>Green House Gas(es)</i>
<i>HTSC</i>	<i>High Tension Service Connection</i>
<i>I</i>	<i>Interview</i>
<i>IETA</i>	<i>International Emissions Trading Association</i>
<i>JMR</i>	<i>Joint Meter reading</i>
<i>KPTCL</i>	<i>Karnataka Power Transmission Company Limited</i>
<i>MoV</i>	<i>Means of Verification</i>
<i>MP</i>	<i>Monitoring Plan</i>
<i>PCF</i>	<i>Prototype Carbon Fund</i>
<i>PD</i>	<i>Project Document</i>
<i>PDD</i>	<i>Project Design Document / Project Description Document</i>
<i>UNFCCC</i>	<i>United Nations Framework Convention for Climate Change</i>
<i>VVM</i>	<i>Validation and Verification Manual</i>
<i>VCS</i>	<i>Voluntary Carbon Standard</i>
<i>VCU</i>	<i>Voluntary Carbon Units</i>
<i>VWTIPL</i>	<i>Vestas Wind Technology India Pvt Ltd</i>
<i>WTG</i>	<i>Wind Turbine Generator</i>

Appendix B

References

Documents submitted by Acciona Wind Energy Pvt. Ltd

- /1/ VCS PD Version, dated 24/03/09 submitted by Acciona Wind Energy Pvt. Ltd and revised on 11/05/09
- /2/ CDM PDD version no: 02 dated January 2008
- /3/ CDM Validation report no: 2007-1094, Revision 01 dated 05/06/2008
- /4/ Memorandum of Articles of Acciona Wind Energy Pvt. Ltd dated 06/09/2006
- /5/ Certificate of Incorporation by Registrar of Companies identity number: U40102KA2006PTC047750
- /6/ Power purchase agreements with BESCO dated 02/05/08 for Anaburu and 17/03/08 for Arasinagudi
- /7/ Contracts for supply of equipments for Phase I on 27th April 2007 and for Phase II on 20th September 2007.
- /8/ Contracts for Maintenance, Service and Availability for Phase I on 27th April 2007 and for Phase II on 20th September 2007.
- /9/ Calibration certificates of the meters dated 22/11/2008 and 1st quarter calibration certificate dated 03/03/2009.
- /10/ Pre commissioning test on 66 KV metering, report dated 25/01/08
- /11/ Monthly Generation reports of the WTGs of Acciona Wind Energy Pvt. Ltd for the months June - November 2008
- /12/ CDM Manual rev 01 dated 30/05/2008
- /13/ Training records dated 04/02/09
- /14/ WTG commissioning certificates dated 12/06/2008 and 30/09/2008
- /15/ Operation and maintenance records of Arasinagundi and Anaburu sites
- /16/ Invoices raised from Acciona Wind Energy Pvt. Ltd dated 07/07/08 ;07/08/08; 05/09/08; 06/10/08; 07/11/08; 06/12/08
- /17/ Payments received against the invoices from BESCO dated 26/08/08; 04/09/08; 20/09/08; 19/12/08
- /18/ O&M contract with Vestas dated 27/04/2007 for Arasinagundi site
- /19/ O&M contract with Vestas dated 20/09/2007 for Anaburu site
- /20/ Internal audit certificate dated 01/04/2009
- /21/ E mail communication regarding name change to UNFCCC from the project proponent and the reply mail from UNFCCC dated 09/04/09.

Other documents referred for validation

- /22/ Voluntary Carbon Standard Programme guidelines dated 18/11/2008*
- /23/ VCS Guidance Document, Version 1.1 dated 12/03/2009*

Persons interviewed:

List persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

- /1/ Mr. Prashanth Vittal. P, Director-Projects & Operations, Acciona Energy*
- /2/ Ms. Nuria Iturriagagoitia, Acciona Energy*
- /3/ Mr. Rajnish Sapra, CFO, Acciona Energy*
- /4/ Ms. Magdalena Garcia, Director-Regulation, Acciona Energy*
- /5/ Mr. Nilanjan Sinha, Dy. Financial Controller, Acciona Energy*
- /6/ Mr. Shiva Kumar, Site Manager, Vestas Wind Technology India Pvt Ltd*

Appendix C

Curricula vitae of the DOE's validation team members

H B Muralidhar: *(Team Leader) Lead auditor in Bureau Veritas Certification for Environment Management System, Quality Management System and Occupational Health and Safety Management System. Graduate in Electrical Engineering with 25 years of experience power generation and distribution related fields as well as in management system auditing. He is the Lead auditor for Environmental Management System, Quality Management system and Occupational Health and Safety Management System. He has undergone intensive training on Clean Development Mechanism. He is the technical expert & conducted Validation / Verification for more than 50 CDM Projects*

R. Reghu Kumar: *(Team Member) Lead auditor in Bureau Veritas Certification for Environment Management System, Quality Management System and Occupational Health and Safety Management System. Post graduate in Environmental Engineering, Management and certified Project Management Professional from PMI, Pennsylvania, USA, with 20 years of work experience, which include teaching, Environmental Management & Monitoring as part of the environmental regulatory authority and Management system auditing with exposure to variety industrial processes. He has undergone intensive training on Clean Development Mechanism and involved in validation / verification of CDM & VCS projects.*

Dinesh Shetty *(Internal Reviewer) A Chemical Engineer with over all 17 years of experience. He has worked with National Productivity Council of India as Project Consultant and trainer for projects in the field of Environment Management for thirteen years. He is working as Lead auditor and trainer in Bureau Veritas Certification for Environment Management System, Quality Management System and Occupational Health and Safety Management System. He has undergone intensive training on Clean Development Mechanism and involved in validation / verification of CDM projects. He is also a Lead Tutor for CDM.*
