VALIDATION REPORT

29.7 MW Wind Power Project in Karnataka, India

REPORT NO. 2007-1094

REVISION NO. 01

DET NORSKE VERITAS CERTIFICATION AS

VALIDATION REPORT

DET NORSKE VERITAS
DNV CERTIFICATION AS

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Project Name: 29.7 MW Wind Power Project in Karnataka, India
Country: India
Methodology: ACM 0002
Version: 6
GHG reducing Measure/Technology: *"Consolidated baseline methodology for grid-connected electricity generation from renewable sources"*
ER estimate: 88 240 **t CO_2** eq per year over the ten year crediting period.
Size
☒ Large Scale
☐ Small Scale
Validation Phases:
☒ Desk Review
☒ Follow up interviews
☒ Resolution of outstanding issues
Validation Status
☐ Corrective Actions Requested
☐ Clarifications Requested
☒ Full Approval and submission for registration
☐ Rejected

In summary, it is DNV's opinion that the "29.7 MW Wind Power Project in Karnataka, India India ", as described in the PDD of version 02 dated January 2007, meets all relevant UNFCCC requirements for the CDM and correctly applies the approved consolidated baseline and monitoring methodology ACM0002 (Version 06, 19 May 2006). Hence, DNV requests the registration of the "29.7 MW Wind Power Project in Karnataka, India**"** by Accion Wind Energy Pvt. Ltd (AWEPL) as a CDM project activity.

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Key words:
Validation

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VALIDATION REPORT

Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CL	Clarification request
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
DNV	Det Norske Veritas
DNA	Designated National Authority
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
HSD	High Sulphur Deisel
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MVP	Monitoring and Verification Plan
NGO	Non-governmental Organisation
ODA	Official Development Assistance
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change

VALIDATION REPORT

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VALIDATION REPORT

1 EXECUTIVE SUMMARY – VALIDATION OPINION

Det Norske Veritas Certification AS has performed a validation of the "29.7 MW Wind Power Project in Karnataka, India", on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

The project participants are Accion Wind Energy Pvt. Ltd from the host Party India. Host Party India fulfils all the participation criteria and has approved the project and authorized the project participant. Approval of voluntary participation by the Designated National Authority (DNA) of India and confirmation that the project assists in achieving sustainable development has also been obtained.

The project correctly applies the approved consolidated baseline and monitoring methodology ACM 0002"Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 6. The project involves generation of renewable energy by installing wind electricity generators (WEGs) which will partly displace the electricity generation in the fossil fuel dominated Southern regional grid of India, thereby resulting in the reduction of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The project is estimated to result in emission reductions of 88 240 t CO_2 per year over the total 10 year fixed crediting period. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

The monitoring plan makes sufficient provision for monitoring relevant project and baseline emission indicators. Detailed responsibilities and authorities for project management, monitoring and reporting and QA/QC procedures have also been addressed.

In summary, it is DNV's opinion that the "29.7 MW Wind Power Project in Karnataka, India" as described in the revised PDD of version 02 dated January 2008, meets all relevant UNFCCC requirements for the CDM and correctly applies the consolidated baseline and monitoring methodology ACM0002 version 06. DNV thus requests the registration of the "29.7 MW Wind Power Project in Karnataka, India" as a CDM project activity.

2 INTRODUCTION

Accion Wind Energy Pvt. Ltd (AWEPL) has commissioned Accion Wind Energy Pvt. Ltd to perform a validation of the "29.7 MW Wind Power Project in Karnataka, India (hereafter called "the project"). This report summarises the findings of the validation of the project, performed on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

2.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

2.2 Scope

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM 0002. The validation team has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of CERs.

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

3 METHODOLOGY

The validation consisted of the following three phases:

I a desk review of the project design documents

II follow-up interviews with project stakeholders

III the resolution of outstanding issues and the issuance of the final validation report and opinion.

The following sections outline each step in more detail.

3.1 Desk Review of the Project Design Documentation

The following table lists the documentation that was reviewed during the validation:

/1/ Accion Wind Energy Pvt. Ltd: PDD of the "*29.7 MW Wind Power project in Karnataka*", Version 01, August 2007 and Version 2 of January 2008.

/2/ DNA Letter of Approval Dated 17 March 2008.

/3/ International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): *Validation and Verification Manual*. http://www.vvmanual.info

/4/ ACM 0002, version 06, *"Consolidated baseline methodology for grid-connected electricity generation from renewable sources"*

/5/ Minutes of the Board of directors of Accion Wind Energy Private Limited dated 18 April 2007.

/6/ Contracts for supply of equipments for Phase I on 27 April 2007 and for Phase II on 20 September 2007.

/7/ Contracts for Maintenance, Service and Availability for Phase I on 27 April 2007 and for Phase II on 20 September 2007.

/8/ Contracts for Erection and Commissioning for Phase I on 27 April 2007 and Phase II on 20 September 2007

/9/ Agreement between Govt of Karnataka and Accion Wind energy Pvt. Ltd. to develop the wind farm..dtd 20 June 2007.

/10/ Substation agreement dtd. 27 April 2007.

/11/ Development agreement between Vestas Wind Technologies and AWEPL dtd 20 September 2007

/12/ Evacuation approval from KPTCL dtd 12 July 2007.

/13/ Letters of approval from Minister of environment and forests for the transfer of lease of the land to Accion Wind Energy Private limited dtd 18 October 2007.

/14/ Certificate from the third party charted accountant on the project financials and assumptions dated 17 November 2007..

/15/ Letters from the equipment suppliers dated 26 March 2008 and 28 March 2008.

3.2 Follow-up Interviews with Project Stakeholders

	Date	Name	Organization	Topic
/16/	2007 -10 -31	Mr. Rajinish Sapra Mr.Rajesekhar Budhavarapu Mr. P. Prasanth Vittal	Accion Wind Energy Pvt Ltd.	➢ Project Technology and additionality ➢ Estimated emission reductions. ➢ Calculation of CEF. ➢ Technology applied and operational lifetime. ➢ Monitoring and reporting procedures. ➢ Calibration, internal audit and corrective action procedures. ➢ Provisions for training, operation and maintenance. ➢ Environmental compliance
		Mr. Dhirendra Mr. Sriskandh Subramaniam. Mr. Vidhya Murthy	Winrock International India	
		Mr.Manjunath,	Assistant Executive Engineer (A.E.E) of BESCOM	➢ Legal Compliance and present power situation in the state of Karnataka.

3.3 Resolution of Outstanding Issues

The objective of this phase of the validation was to resolve any outstanding issues which needed be clarified prior to Accion Wind Energy Pvt. Ltd's positive conclusion on the project design. In order to ensure transparency a validation protocol was customised for the project. The protocol shows in a transparent manner the criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM 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 three tables. The different columns in these tables are described in the figure below. The completed validation protocol for the "29.7 MW Wind Power Project in Karnataka, India is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfilment of CDM criteria or where a risk to the fulfilment of project objectives is identified. Corrective action requests (CAR) are issued, where:

i) mistakes have been made with a direct influence on project results;
ii) CDM and/or methodology specific requirements have not been met; or
iii) there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be certified.

A request for clarification (CL) may be used where additional information is needed to fully clarify an issue.

3.4 Internal Quality Control

The draft validation report including the initial validation findings underwent a technical review before being submitted to the project participants. The final validation report will undergo another technical review before requesting registration of the project activity. The technical review will be performed by a technical reviewer qualified in accordance with Accion Wind Energy Pvt. Ltd's qualification scheme for CDM validation and verification.

3.5 Validation Team

Role/Qualification	Name	Country
Team Leader/ CDM Validator	Ramesh Ramachandran	DNV, India
GHG Auditor	Murali Govindarajulu	DNV, India
Sector expert	Michael Lehmann	DNV, Oslo
Technical reviewer	Kakaraparthi Venkata Raman	DNV, India

The qualification of each individual validation team member is detailed in Appendix B to this report.

VALIDATION REPORT

Validation Protocol Table 1: Mandatory Requirements for CDM Project Activities		
Requirement	***Reference***	***Conclusion***
The requirements the project must meet.	*Gives reference to the legislation or agreement where the requirement is found.*	This is either acceptable based on evidence provided (**OK),** a **Corrective Action Request (CAR)** of risk or non-compliance with stated requirements or a request for **Clarification (CL)** where further clarifications are needed.

Validation Protocol Table 2: Requirement checklist				
Checklist Question	***Reference***	***Means of verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements in Table 2 are linked to checklist questions the project should meet. The checklist is organised in different sections, following the logic of the large-scale PDD template, version 03 - in effect as of: 28 July 2006. Each section is then further sub-divided.	*Gives reference to documents where the answer to the checklist question or item is found.*	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (**OK),** or a c**orrective action request (CAR)** due to non-compliance with the checklist question (See below). A request for clarification (CL) is used when the validation team has identified a need for further clarification.*

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	***Ref. to checklist question in table 2***	***Summary of project owner response***	***Validation conclusion***
If the conclusions from the draft Validation are either a CAR or a CL, these should be listed in this section.	*Reference to the checklist question number in Table 2 where the CAR or CL is explained.*	*The responses given by the project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".*

Figure 1 Validation protocol tables

4 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.
The final validation findings related to the project design as documented and described in the revised project design documentation of version 02 dated January 2008.

4.1 Participation Requirements

The project is developed as a unilateral project by Accion Wind Energy Pvt Ltd. (AWEPL), the project proponent. The host Party India, meet all the participation requirements. The DNA of India has approved the project on 17 March 2008 /2/, authorizing Accion Wind Energy Pvt. Ltd as project participant and confirmed that the project contributes to the sustainable development in India. The validation process has not revealed any diversion of ODA funding towards the project activity.

4.2 Project Design

The project activity envisages the installation of 18 wind energy generators (WEGs) each rated at 1.65 MW, thereby aggregating to a total installed capacity of 29.7 MW in Davangere district, Karnataka, India. The project activity will export the generated electricity to the southern regional grid of India.

All the WEGs are supplied by Vestas Technology Pvt Ltd. and the installation, commissioning, operation and maintenance of the WEGs is in the scope of Vestas Technology Pvt Ltd. The project envisages underground cabling of the transmission lines from the WEGs to the substation, which is not a common practice in India. The step up transformer involved in the project will be housed in a RCC structure. The project design and engineering reflects good practice. The technology used in the project activity is indigenously available in India and no transfer of technology is envisaged.

The expected operational lifetime of the project technology is 20 years. A fixed crediting period of ten years starting from the date of the registration of the project has been selected. The starting date of the project activity is stated to be 18 April 2007 which is the date of approval from the board of directors for the wind farm project. The necessary document for this has been verified by DNV/5/. The project is estimated to reduce 88 240 t CO_2e per year for the duration of the crediting period chosen.

4.3 Baseline Determination

The project applies the approved consolidated baseline methodologies for the CDM project activity ACM002 (version 06) titled "*Consolidated baseline methodology for grid-connected electricity generation from renewable sources.*"

The selected baseline scenario is that an equivalent amount of electricity would, in the absence of the project activity, have been generated by the operation of grid-connected thermal power plants and by the addition of new generation sources.

As the project activity supplies electricity to the Karnataka state electricity grid which forms a part of the southern region electricity grid, the baseline for this project activity is a function of

the generation mix of the southern region grid. The selection of the southern region grid as the grid system boundary for the project activity is in line with the recent EB guidance for large countries such as India. Owing to the intermittent and non-dispatchable nature of the wind and hydro projects the weights for OM and BM has been taken as 75:25, in line with the guidance provided in the methodology. The combined margin emission coefficient for the southern grid of India has been calculated at 0.93 kg CO_2e/kWh, and has been sourced from CEA data. The Central Electricity Authority, Ministry of Power, Government of India has published a database of carbon dioxide emission factors from the power sector in India based on detailed authenticated information obtained from all operating power stations in the country ("CO_2 Baseline Database"[1]) This CO_2 baseline database provides information about the OM and BM factors of all the regional electricity grids in India. DNV confirms that the database is an official publication of the Government of India for the purpose of CDM baselines and the OM in the CEA database is calculated ex ante using the simple OM approach based on the generation-weighted average emissions per electricity unit of all fossil-fuelled generating sources serving the system over a three year period of 2003-2004, 2004-2005 and 2005-2006 /20/. BM is calculated ex ante based on 20% most recent capacity additions in the grid based on net generation as described in ACM0002 version 6. The operating margin has been determined to be 1.003 kg CO_2e/kWh and the build margin to be 0.71 kg CO_2e/kWh.

4.4 Additionality

The additionality of the project activity is demonstrated using the "Tool for demonstration of additionality" Version 3.

The early consideration of CDM has been evidenced from the minutes of the Board of Directors meeting, dated 18 April 2007 /5/. The agreement for the construction of Phase I of the project was signed on 27 April 2007 subsequent to approval from the board of directors. The PDD was completed in August 2007 and submitted for validation subsequently. The first phase of the project activity comprising 13.2 MW of generation was commissioned in June 2008 and the second phase is expected to be commissioned during July 2008.

Step 1: Identification of alternatives to the project activity consistent with current laws and regulations

Three alternatives have been identified for the project activity: a.) Implementing the project activity without CDM. b) Implementing a similar scale fossil fuel based power plant and c) Continuing with the current situation - Power generation from the grid connected power and by new capacity additions The alternative b) has been eliminated as the project proponent AWEPL does not have any experience in fossil fuel power plants and it is not their core competency as is renewable power generation. The alternative identified complies with all applicable laws and is thus considered to be a possible baseline scenario.

Step 2: Investment analysis

[1] http://www.cea.nic.in/planning/c%20and%20e/Govertment%20of%20India%20website.htm

An investment analysis has been presented by Accion Wind Energy Pvt. Ltd, using the project as basis to assess the financial attractiveness of the project activity. It has been demonstrated that the project IRR without any CDM revenues is estimated to be 11.93%. The Project IRR is lower than the benchmark IRR of 14.25% adopted by the Project participant. As per the" Tool for the demonstration and assessment of additionality" a relevant benchmark for a project's IRR can be derived from the local commercial lending rates increased by the suitable risk premium to reflect the private investment or project type. In line with this the benchmark has been derived from the commercial lending rate applicable to this project raised by the country specific risk premium indicated by the OECD[2]. The average lending rate of 11.25% at which the project proponent has sourced finances raised by the country specific risk premium of 3% indicated by OECD has been considered for the arriving at the benchmark of 14.25%. The documents from the banks on the lending rates have been verified by DNV and are found to be appropriate. The IRR improves to 15.69% on considering CDM revenues. The financial worksheets have been evidenced and verified to be correct. The assumptions used, the base documents and the financial workings have also been verified and certified by third party chartered accountants. All documents pertaining to the source of input values presented in the analysis have been verified by DNV from the following documents.

- Contracts for supply of the equipments
- Contracts for Erection and commissioning
- Contracts for Maintenance, Service and availability
- Substation agreement
- Development agreement.
- Tariff as per KERC order

Contract signing for phase I was only a few days after the investment decisions and the investment decision was thus based on the above mentioned contracts.

The incentives from the Government of India for the renewable energy projects have been taken in to consideration for the financial analysis. A barrier for the project activity is also that the main incentive of accelerated depreciation realizable by the other companies in India while investing in renewable energy projects cannot be realized by the project proponent since the company AWEPL does not have any other operations in India.

Step 2d: Sensitivity analysis:
A sensitivity analysis has also been conducted for variations in the range of +/- 10% for the parameters of plant load factor and +/- 05% for the project costs. The level of variation assumed for the sensitivity analysis has been suitably justified with relevant documents pertaining to the presented analysis and has been verified by DNV, such as

- The basis for the assumed plant load factor (PLF) of 36.47% in the PDD is the independent Micro sitting study conducted by Accion. It was also observed that at a plant load factor of 40.12%, the IRR of the project is below the benchmark of 14.25%. However based on the independent micro siting study conducted for individual locations and the documents related to the wind assessment studies, DNV has verified the independent

[2] http://www.oecd.org/dataoecd/47/29/3782900.pdf

micro sitting details and is of the opinion that the plant load factor of 36.47% already considered is an conservative figure and it is therefore deemed unlikely that the plant load factor would increase by 10%. The judgement is also based on the experience and knowledge of similar WEG plant data already operating in the same region.

- The project has been contracted on a turn key basis to Vestas Technology Pvt Ltd by the project proponent AWEPL/6/,/7/,/8/&/10/. It was also observed that if the project cost goes down by 20% then the IRR touches the benchmark of 14.25%. However this is not a likely scenario in DNVs opinion as the project has been contracted on a turn key basis and the project cost is not likely to have any increase or decrease.. In the worst case scenario, there can only be an escalation in the project cost (which decreases the IRR) and not a decrease (which would increase the IRR of the project). Hence the consideration of 5% increase is justified.
- It is also DNV's opinion, that the operation and maintenance cost for the project amount to only 2.82% of the investment cost in the initial year and hence not considered for the sensitivity analysis (being less than 20%). It is also DNV opinion that the operation and maintenance cost would only increase and are not likely to come down, which would further reduce the IRR of the project.
- The tariff of the generated electricity has been fixed for a period of 10 years as per the Karnataka Electricity Regulation Authority, Tariff order dated 18 January 2005 and the PPA will be signed as per the tariff order.(as stated in CL of table three, converted to FAR for verification in the initial verification). The tariff may have a marginal increase after the first 10 years period. Even though the revenue from the tariff amounts to more than 20% of the revenue, the tariff is fixed for the first 10 year period, and may show a marginal increase subsequently. Since the tariff will not increase in the first ten years, this parameter has not been considered for the sensitivity analysis and is reasonable.

It has been demonstrated that the IRR with the above sensitivity analysis is always less than the benchmark IRR of 14.25%. Further, the financial analysis including the assumptions for the sensitivity analysis has been certified by an independent third party charted accountant/14/ and the benchmark has been verified by DNV and thus the financial analysis and the benchmark adopted for the project activity is found to be appropriate.

Step 3: Barrier analysis

The arguments presented in the barrier analysis are generic in DNVs opinion.

Step 4: Common practice analysis

Under the common practice analysis, the argument that the private wind farm promoters with an installed capacity of more than 20MW have considered CDM has been demonstrated with the data on the status of the mentioned projects. Among the total power generation through all sources in Karnataka only 2.04% of the power is generated from wind energy and the data from the Karnataka electricity regulation commission has been provided in the PDD.

The project activity also has all underground internal cabling, which is not a common practice in the wind farms in India. It has been demonstrated that for wind power projects of similar types and capacities, it is common practice to provide overheads cabling, which represent proven practice, are economical and have less perceived operational problems.

Communication between the equipment supplier and the EPC contractors have been provided to demonstrate that providing underground cabling for internal transmission lines and providing RCC housing for the transformers are first of its kind in India /15/.

The above mentioned arguments demonstrate that the project is not a likely baseline scenario and that emission reductions from the project are indeed additional.

4.5 Monitoring

The project applies the consolidated monitoring methodology ACM0002 (version 06) titled "*Consolidated baseline methodology for grid-connected electricity generation from renewable sources*." The monitoring methodology is applicable and justified for the proposed project as the project involves electricity capacity additions through renewable sources. Details of the parameters covered under the monitoring plan are stated in the following sections.

4.5.1 Parameters determined ex-ante

Baseline emission factor for the southern regional grid is established *ex-ante* based on the approved methodology using a combined margin approach. The combined margin emission coefficient for the southern regional grid of India has been determined to be 0.93 kg CO_2e / kWh. The operating margin has been estimated to be 1.003 kg CO_2 /kWh and the build margin to be 0.71 kg CO_2/kWh. The emission coefficients are determined from official data published by the Central Electricity Authority (CEA) of India in 'CO_2 Baseline Database for the Indian Power Sector' as stated in section 4.3 of this report. The calculations and assumptions have been verified and found to be correct by DNV.

4.5.2 Parameters monitored ex-post

The monitoring will involve metering of the net electricity exported to grid. Details of the data collection and frequency of data recording and associated formats are described and found to be adequate.

4.5.3 Management system and quality assurance

The responsibilities and authorities for project management, procedures for monitoring and reporting, and QA/QC procedures have been systematically established and formalized. Data will be saved both electronically and on paper and archived until 2 years after the end of the crediting period.

4.6 Estimate of GHG Emissions

The calculations are well documented in line with the consolidated baseline and monitoring methodology ACM0002, version 06.

The project is electricity generation from the wind power and no project emissions and leakage is associated with the project activity. The emission factor has been computed to be 0.93 kg CO_2e/kWh of electric power generated and is fixed ex-ante for the entire crediting period of ten years. The project is expected to result in emission reductions of 88 240 t CO_2 per year during the crediting period. The calculations are transparently documented and conservative assumptions regarding expected amount of electricity generation have been deemed to be made.

4.7 Environmental Impacts

As per the MoEF, an environmental impact assessment is not required for projects costing less than USD 22 million, as is the case of the proposed project. The possible environmental impacts due to the project activity have been identified to be negligible and have been listed in the PDD. Accion Wind Energy Pvt. Ltd has obtained the approval from government of India to establish the wind farm vide letters from Ministry of Environment and Forests dated 18th October 2007 and DNV has verified the letters. The project participant shall obtain the PPA before putting the plant into actual operation.

4.8 Comments by Local Stakeholders

Under Indian Legislation, local stakeholder consultation process for wind power projects is not warranted. Accion Wind Energy Pvt. Ltd have organized a meeting involving the local panchayat and ensured a direct consultation with relevant stakeholders from the local community and relevant governmental bodies. The meetings have been conducted on 03rd August 2007. Prior to the meeting an advertisement has been placed in the local newspaper on 28th July 2007 inviting interested parties to comment on the project. DNV has verified the minutes of the stakeholder meeting held on 3rd August 2007 also few stake holders were interviewed during the site visit. The local stakeholders support the project and no modifications to the project design were necessary.

4.9 Comments by Parties, Stakeholders and NGOs

The PDD of August 2007 was made publicly available on Accion Wind Energy Pvt. Ltd's climate change website (www.dnv.com/certification/climatechange) and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during a 30 days period from 09 September 2007 to 08 October 2007.

No comment was received.

APPENDIX A

CDM VALIDATION PROTOCOL

Table 1 Mandatory Requirements for Clean Development Mechanism (CDM) Project Activities

Requirement	Reference	Conclusion
About Parties		
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3.	Kyoto Protocol Art.12.2	OK
2. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC.	Kyoto Protocol Art.12.2.	OK
3. The project shall have the written approval of voluntary participation from the designated national authority of each Party involved.	Kyoto Protocol Art. 12.5a, CDM Modalities and Procedures §40a	OK ~~CAR 1~~
4. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof.	Kyoto Protocol Art. 12.2, CDM Modalities and Procedures §40a	OK
5. In case public funding from Parties included in Annex I is used for the project activity, these Parties shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties.	Decision 17/CP.7, CDM Modalities and Procedures Appendix B, § 2	OK
6. Parties participating in the CDM shall designate a national authority for the CDM.	CDM Modalities and Procedures §29	OK
7. The host Party and the participating Annex I Party shall be a Party to the Kyoto Protocol.	CDM Modalities §30/31a	OK
8. The participating Annex I Party's assigned amount shall have been calculated and recorded.	CDM Modalities and Procedures §31b	OK
9. The participating Annex I Party shall have in place a national system for	CDM Modalities and	OK

Requirement	Reference	Conclusion
estimating GHG emissions and a national registry in accordance with Kyoto Protocol Article 5 and 7.	Procedures §31b	
About additionality		
10. Reduction in GHG emissions shall be additional to any that would occur in the absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity.	Kyoto Protocol Art. 12.5c, CDM Modalities and Procedures §43	OK ~~CAR 2~~
About forecast emission reductions and environmental impacts		
11. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change.	Kyoto Protocol Art. 12.5b	OK
For large-scale projects only		
12. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	CDM Modalities and Procedures §37c	OK
About stakeholder involvement		
13. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received.	CDM Modalities and Procedures §37b	OK
14. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available.	CDM Modalities and Procedures §40	The PDD of the 29.7 MW Wind Power Project in Karnataka, India was made publicly available on www.dnv.com/certifica

Requirement	Reference	Conclusion
		tion/climatechange and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during the period from 09 Sep 2007 to 08 Oct 2007. OK
Other		
15. The baseline and monitoring methodology shall be previously approved by the CDM Executive Board.	CDM Modalities and Procedures §37e	OK
16. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	CDM Modalities and Procedures §45c,d	OK
17. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure.	CDM Modalities and Procedures §47	OK
18. The project design document shall be in conformance with the UNFCCC CDM-PDD format.	CDM Modalities and Procedures Appendix B, EB Decision	OK
19. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP.	CDM Modalities and Procedures §37f	OK ~~CL 2~~

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
A. General Description of Project Activity *The project design is assessed.*					
A.1. Project Boundaries *Project Boundaries are the limits and borders defining the GHG emission reduction project.*					
A.1.1. Are the project's spatial boundaries (geographical) clearly defined?	PDD	DR	Yes. The project activity involves installation of WEGs at Anabaru and Arasinagundi Villages, Jagalur Taluk, Davangere district, Karnataka, India.		OK
A.1.2. Are the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	PDD	DR	The spatial extent of the project boundary includes the project site and all power plants connected physically to the Southern Grid.		OK
A.2. Participation Requirements *Referring to Part A, Annex 1 and 2 of the PDD as well as the CDM glossary with respect to the terms Party, Letter of Approval, Authorization and Project Participant.*					
A.2.1. Which Parties and project participants are participating in the project?	PDD	DR	India (Host Party) & Accion wind Energy Pvt Ltd is the project participant.	~~OK~~ ~~CAR 1~~	OK
A.2.2. Have all involved Parties provided a valid and complete letter of approval and have all private/public project participants been authorized by an involved Party?	PDD	DR	The LoA from the Govt of India has not been obtained.	~~OK~~ ~~CAR 1~~	OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
A.2.3. Do all participating Parties fulfil the participation requirements as follows: - Ratification of the Kyoto Protocol - Voluntary participation - Designated a National Authority	PDD	DR	**India :** The Designated National Authority of India is Ministry of Environmental and Forests. India ratified the Kyoto Protocol on 22 August 2002. **Annex 1 Party:** To be identified.	~~OK~~ ~~CAR 1~~	OK
A.2.4. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance.	PDD	DR/I	The validation did not reveal any information on the diversion of ODA funds for the project activity.		OK
A.3. Technology to be employed *Validation of project technology focuses on the project engineering, choice of technology and competence/ maintenance needs. The validator should ensure that environmentally safe and sound technology and know-how is used.*					
A.3.1. Does the project design engineering reflect current good practices?	PDD	DR/I	Yes. The technology employed in the project reflects current good practice.		OK
A.3.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR/I	The project technology is available in India.		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
a. Does the project make provisions for meeting training and maintenance needs?	PDD	DR/I	Yes, the project will require trained and qualified manpower. The procedures for training and the maintenance would be devised when the plant becomes operational.		OK
A.4. Contribution to Sustainable Development *The project's contribution to sustainable development is assessed.*					
A.4.1. Has the host country confirmed that the project assists it in achieving sustainable development?	PDD	DR	The project proponent has not received the host Party's letter of approval (LoA),	~~CAR 1~~	OK
A.4.2. Will the project create other environmental or social benefits than GHG emission reductions?	PDD	DR/I	Yes. The project activity will create employment opportunities in the area.		OK
B. Project Baseline *The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.*					
B.1. Baseline Methodology *It is assessed whether the project applies an appropriate baseline methodology.*					
B.1.1. Does the project apply an approved methodology and the correct version thereof?	PDD	DR	Yes. The project applies ACM 0002 Version 6.		OK
B.1.2. Are the applicability criteria in the baseline methodology all fulfilled?	PDD	DR	Yes.		OK
B.2. Baseline Scenario Determination					

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.					
B.2.1. What is the baseline scenario?	PDD	DR	Electricity delivered to the grid by the project that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources within the Southern Regional grid.		OK
B.2.2. What other alternative scenarios have been considered and why is the selected scenario the most likely one?	PDD	DR	Three alternatives have been identified. a. Implementation of the project activity not undertaken as a CDM project activity b. Implementation of a similar scale fossil fuel (diesel) based power plant c. Continuation of the current situation with no project activity.		OK
B.2.3. Has the baseline scenario been determined according to the methodology?	PDD	DR	Yes. The baseline scenario has been determined according to the methodology.		OK
B.2.4. Has the baseline scenario been determined using conservative assumptions where possible?	PDD	DR	Yes.		OK
B.2.5. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	PDD	DR	Yes.		OK
B.2.6. Is the baseline scenario determination compatible	PDD	DR	Yes.		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
with the available data and are all literature and sources clearly referenced?					
B.3. Additionality Determination *The assessment of additionality will be validated with focus on whether the project itself is not a likely baseline scenario.*					
B.3.1. Is the project additionality assessed according to the methodology?	PDD	DR	Yes, The project additionality has been assessed as per the Methodology.		OK
B.3.2. Are all assumptions stated in a transparent and conservative manner?	PDD	DR/I	The project activity uses Investment analysis and Barrier analysis (Technological barriers and Investment Barriers) to demonstrate additionality. However there is a lack of clarity in the following: **Investment analysis:** a. Equity IRR has been used instead of the Project IRR for the benchmark analysis. b. It is not clear whether all the relevant data/assumptions like PLF, tariff, interest rates, investment costs used are prior to Board Approval. c. As part of sensitivity analysis , the basis of the indicators and their range lack elaboration. **Barrier analysis:**	~~CAR 2~~	OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			a. The argument under investment barrier mentioning that the project activity is the first IPP based on non recource financing needs further elaboration and supporting evidences. b. The arguments under Technological barriers mentioning that the project activity is first of its kind in using underground cabling and covered transformers needs to be substantiated with references.		
B.3.3. Is sufficient evidence provided to support the relevance of the arguments made?	PDD	DR/I	Refer to comments above.	~~CAR 2~~	OK
B.3.4. If the starting date of the project activity is before the date of validation, has sufficient evidence been provided that the incentive from the CDM was seriously considered in the decision to proceed with the project activity?	PDD	DR/I	The starting date of the project activity lacks clarity and as the starting date is earlier than the date of validation documents for demonstrating that CDM was considered at the stage of conceiving the project shall be provided	~~CL 1~~	OK
B.4. Calculation of GHG Emission Reductions – Project emissions *It is assessed whether the project emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified.*					
B.4.1. Are the calculations documented according to the	PDD	DR	Since the project is a Wind power project, no		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
approved methodology and in a complete and transparent manner?			project emissions are envisaged.		
B.5. Calculation of GHG Emission Reductions – Baseline emissions *It is assessed whether the baseline emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified.*					
B.5.1. Are the calculations documented according to the approved methodology and in a complete and transparent manner?	PDD	DR	Yes. The baseline calculations have been done as per the approved methodology ACM 002 version 6.		OK
B.5.2. Have conservative assumptions been used when calculating the baseline emissions?	PDD	DR/I	Yes.		OK
B.5.3. Are uncertainties in the baseline emission estimates properly addressed?	PDD	DR/I	The baseline emissions have been calculated using the details provided by CEA.		OK
B.6. Calculation of GHG Emission Reductions – Leakage *It is assessed whether leakage emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified.*					
B.6.1. Are the leakage calculations documented according to the approved methodology and in a complete and transparent manner?	PDD	DR	Since the project activity is a wind power project, no leakage is associated with the project activity.		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
B.7. Emission Reductions *The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change.*					
B.7.1. Are the emission reductions real, measurable and give long-term benefits related to the mitigation of climate change.	PDD	DR	Yes. The project activity will result in fewer emission reductions than the baseline scenario.		OK
B.8. Monitoring Methodology *It is assessed whether the project applies an appropriate monitoring methodology.*					
B.8.1. Is the monitoring plan documented according to the approved methodology and in a complete and transparent manner?	PDD	DR/I	Yes. The monitoring plan has been devised as per the Monitoring methodology adopted for the project activity.		OK
B.8.2. Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later?	PDD	DR/I	Yes. The Data will be archived till two years after the end of the crediting period.		OK
B.9. Monitoring of Project Emissions *It is established whether the monitoring plan provides for reliable and complete project emission data over time.*					
B.9.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the	PDD	DR	Since the project is a Wind power project, no project emissions are envisaged.		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
greenhouse gas emissions within the project boundary during the crediting period?					
B.10. Monitoring of Baseline Emissions *It is established whether the monitoring plan provides for reliable and complete baseline emission data over time.*					
B.10.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining baseline emissions during the crediting period?	PDD	DR	Yes. The project uses the *ex-ante* determination of emission factor for southern grid of India. Only net electricity supplied to the grid will be monitored and double checked with the electricity sales receipts. However the monitoring plan mentions about monitoring of the net electricity supplied to the grid without clearly indicating whether the monitoring of export and import of electricity is being done.	~~CL 2~~	
B.10.2. Are the choices of baseline GHG indicators reasonable and conservative?	PDD	DR	Yes. The baseline indicators chosen are in accordance to ACM 0002.		OK
B.10.3. Is the measurement method clearly stated for each baseline indicator to be monitored and also deemed appropriate?	PDD	DR/I	Measurement methods are specified in the Monitoring Plan, B.7 in the PDD.		OK
B.10.4. Is the measurement *equipment* described and deemed appropriate?	PDD	DR/I	Yes. The meters are supplied by KPTCL.		OK
B.10.5. Is the measurement *accuracy* addressed and	PDD	DR/I	Monitoring data will be checked for		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
deemed appropriate? Are procedures in place on how to deal with erroneous measurements?			consistency. Provisions have been made in the Monitoring plan to cross check the readings.		
B.10.6. Is the measurement *interval* for baseline data identified and deemed appropriate?	PDD	DR/I	Yes.		OK
B.10.7. Is the registration, *monitoring*, *measurement* and *reporting* procedure defined?	PDD	DR/I	General descriptions of these procedures are shown in Section B.7.2 of the PDD.		OK
B.10.8. Are procedures identified for *maintenance* of monitoring equipment and installations? Are the calibration intervals being observed?	PDD	DR/I	The project activity has envisaged calibration of meters according to the intervals specified by CEG and KPTCL.		OK
B.10.9. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR/I	Yes.		OK
B.11. Monitoring of Leakage *It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.*					
B.11.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	PDD	DR	Since the project activity is a wind power project no leakage is envisaged.		OK
B.12. Monitoring of Sustainable Development Indicators/ Environmental Impacts *It is assessed whether choices of indicators are reasonable*					

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
and complete to monitor sustainable performance over time.					
B.12.1. Is the monitoring of sustainable development indicators/ environmental impacts warranted by legislation in the host country?	PDD	DR	Indian DNA does not require any collection and archiving of data related to Sustainable development indicators. However LOA from govt of India has not been obtained.	~~CAR 1~~	OK
B.13. Project Management Planning *It is checked that project implementation is properly prepared for and that critical arrangements are addressed.*					
B.13.1. Is the authority and responsibility of overall project management clearly described?	PDD	DR/I	The authority and responsibility of overall project management has not been formalised.	~~CL 3~~	OK
B.13.2. Are procedures identified for training of monitoring personnel?	PDD	DR/I	The procedures for training of the operating personnel to be formalised.	~~CL 3~~	OK
B.13.3. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR/I	No emergencies are foreseen		OK
B.13.4. Are procedures identified for review of reported results/data?	PDD	DR/I	Procedures for internal review needs to be formalised.	~~CL 3~~	OK
B.13.5. Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD	DR/I	Procedures for corrective actions needs to be formalised.	~~CL 3~~	OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
C. Duration of the Project/ Crediting Period *It is assessed whether the temporary boundaries of the project are clearly defined.*					
C.1.1. Are the project's starting date and operational lifetime clearly defined and evidenced?	PDD	DR/I	The Starting date of the project activity needs to be clarified.	~~CL 1~~	OK
C.1.2. Is the start of the crediting period clearly defined and reasonable?	PDD	DR/I	A fixed crediting period of Ten has been chosen and the starting date of the crediting period is expected to be from the date of registration of the project.		OK
D. Environmental Impacts *Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.*					
D.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR/I	Yes. The project participant has highlighted the impacts due to the project activity in the PDD.		OK
D.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR/I	The proposed project activity does not fall under the list of categories listed by Govt of India and hence EIA is not required.		OK
D.1.3. Will the project create any adverse environmental effects?	PDD	DR/I	The project is not expected to create adverse environmental effects.		OK
D.1.4. Are transboundary environmental impacts considered in the analysis?	PDD	DR/I	There are no adverse transboundary environmental impacts		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
D.1.5. Have identified environmental impacts been addressed in the project design?	PDD	DR/I	Yes. The project participant has highlighted the impacts due to the project activity in the PDD.		OK
D.1.6. Does the project comply with environmental legislation in the host country?	PDD	DR/I	The following documents on statutory clearances are to be provided a. Power Purchase agreements between the project participant and KPTCL. b. Land lease documents for Anabaru farm.	~~CL 4~~	OK
E. Stakeholder Comments *The validator should ensure that stakeholder comments have been invited with appropriate media and that due account has been taken of any comments received.*					
E.1.1. Have relevant stakeholders been consulted?	PDD	DR/I	Local stakeholders were invited to comment on the project during a stakeholder consultation meeting held on 03 August 2007		OK
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	PDD	DR/I	An announcement was made in the local newspaper on 28 July 2007 to invite local stakeholders to comment on the project.		OK
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	Govt of India legislations does not require any local stakeholder consultations.		OK
E.1.4. Is a summary of the stakeholder comments received provided?	PDD	DR/I	Yes. It is incorporated into Section E.2 of the PDD		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
E.1.5. Has due account been taken of any stakeholder comments received?	PDD	DR/I	No adverse comment has been received during the consultation process.		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
CAR.1 Host Country approval has not been obtained.	A.2.1.- A.2.3	Host Country approval meeting was held on 22nd October 2007. Requisite clarifications have been provided and approval is awaited.	Accepted. Letter of Approval evidenced. CAR Closed.
CAR 2 The project activity uses Investment analysis and Barrier analysis (Technological barriers and Investment Barriers) to demonstrate additionality. However there is a lack of clarity in the following: **Investment analysis:** a. Equity IRR has been used instead of the Project IRR for the benchmark analysis. b. It is not clear whether all the relevant data/assumptions like PLF, tariff, interest rates, investment costs used are prior to Board Approval. c. As part of sensitivity analysis , the basis of the indicators and their range lack elaboration. **Barrier analysis:** a. The argument under investment barrier mentioning that the project activity is the first IPP based on non recource financing needs further elaboration and supporting	B.3.2 –B.3.3	**Investment analysis:** a. Project IRR was the key criteria considered during investment and has now been incorporated in the Investment analysis. Please refer Section B.5 a) All relevant data used are prior to Board approval b) The basis for the indicators and their range is described in section B.5 Sub-step 2d **Barrier analysis:** a) AWEPL has the supporting evidences from the lenders that supports that the project activity is amongst the first IPP based on non recource financing, in Karnataka.	Accepted based on the supporting documents presented and the revised PDD submitted. CAR Closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
evidences. b. The arguments under Technological barriers mentioning that the project activity is first of its kind in using underground cabling and covered transformers needs to be substantiated with references.		The argument has been strengthened in Sections A.4.3 and B.5 sub-step 3a. and the same has been confirmed by Vestas	
CL 1. The starting date of the project activity lacks clarity and as the starting date is earlier than the date of validation documents for demonstrating that CDM was considered at the stage of conceiving the project shall be provided	B.3.4, C.1.1	The starting date of the project activity has been corrected and documents for demonstrating that CDM was considered at the stage of conceiving the project will be provided to the validator	Accepted. Evidences of project start date and CDM consideration are received and assessed and found appropriate. CL Closed.
CL 2: The monitoring plan mentions about monitoring of the net electricity supplied to the grid without clearly indicating whether the monitoring of export and import of electricity is being done.	B.10.2	The monitoring plan has been elaborated to clearly indicate the monitoring of export and import of electricity. Please refer Section B.7.1 and Annex 4.	Accepted. The PDD is revised. CL Closed.
CL 3: The authority and responsibility of overall project management has not been formalised The procedures for training of the operating personnel; internal review; corrective and	B.13.1,2,4,5	A CDM Manual will be drafted which spells out the authority and responsibility of overall project management and procedures for training of the operating personnel; internal	Accepted. The CL is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
preventive actions needs to be formalised		review, corrective and preventive actions.	
CL 4: The following documents on statutory clearances are to be provided a. Power Purchase agreements between the project participant and KPTCL. b. Land lease documents for Anabaru farm.	D.1.6	The assignment of Arasinagundi and Anabaru has already happened to BESCOM by the State Power Procurement Committee. PPA follows assignment and will be forwarded to the validator after signature. Land lease transfer to AWEPL is initiated and underway.	PPA for both the locations are not yet in place at validation stage. This therefore needs to be checked during the first periodic verification. The Land lease approvals have been received and assessed by DNV. The CL is closed.
CL 5: The recent incentives from the MNES(Ministry of Non-conventional Energy Sources) that wind projects which do not avail accelerated depreciation are eligible for a incentive of Rs.0.5 /kWh needs to be discussed.	-	We specifically refer to the possibility of availing this benefit for Arasinagundi (Phase I) and Anabaru (Phase II) projects referred in the PDD as requested by you and list the many uncertainties below. Kindly bear in mind that this incentive did not exist at the time the decision to go ahead with the project was made. It has come in almost 14 months after beginning the project activity. At the point in time it has been announced, the trial phase of Arasinagundi generation is on and Anabaru is in an advanced stage of construction with commissioning expected in Aug-08. The uncertainties with regard this	The guideline on this incentive has come only very recently (June 30, 2008) and it is demonstrated that the incentive was not available at the time of decision making. Moreover, this incentive can be considered a national and/or sectoral policies that gives comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies which was adopted after decision 17/CP.7 (11 November 2001) and thus does not need to be taken into account in developing a baseline scenario in accordance with the guidance given by the EB at its 22nd meeting. This CL is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
		incentive for projects, and especially Arasinagundi and Anabaru at present in our view are as follows: 1) Arasinagundi (13.20 MW) Phase I is not eligible as per clause 2.3 in Annexure I because it is already synchronized with the grid; 2) There is no certainty for Anabaru (16.5 MW) Phase II being eligible as there are many conditions stipulated for compliance and it cannot be ascertained that we will be able to register our request under this scheme prior to the 49MW overall capacity being exhausted, e.g. - obtaining C-WET site validation; - concluding term loans; - DPR and other documentation. 3) There is no certainty that this cap of 49MW for all wind projects in India will be enhanced by MNRE on its being exhausted. This may very well be exhausted before any approach can be made by us; 4) Since there is no disbursement, we are unsure of the timeframe and implementation of the scheme.	

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
		Irrespective of the uncertainty of the incentive, we firmly believe that our eligibility for being a CDM project should not be questioned due to subsequent developments like the incentive that were unpredictable when the decision to invest in this project was made, and also totally beyond our control such that this could never be considered. The construction and investment is not only committed but largely done by this time. The situation will be irreversible for us even if there any negative subsequent development. The basis of proceeding with the investment is clearly explained in the PDD."	

APPENDIX B

CERTIFICATES OF COMPETENCE

CERTIFICATE OF COMPETENCE

Mari Grooss Viddal

Qualification in accordance with DNV's Qualification scheme for CDM/JI (ICP-9-8-i1-CDMJI-i1

GHG Auditor:	Yes		
CDM Validator:	Yes	***JI Validator:***	--
CDM Verifier:	--	***JI Verifier:***	--
Industry Sector Expert for Sectoral Scope(s):	--		
Technical Reviewer for (group of) methodologies:			
ACM0001, AM0002, AM0003, AM0010, AM0011, AM0012, AMS-III.G	Yes		
ACM002, AMS-I.A-D, AM0019, AM0026, AM0029, AM0045	Yes		

Høvik, 26 September 2007

Michael Lehmann
Technical Director, International Climate Change Services

Ramesh Ramachandran

Qualification in accordance with DNV's Qualification scheme for CDM/JI (ICP-9-8-i1-CDMJI-i1

GHG Auditor:	Yes		
CDM Validator:	Yes	***JI Validator:***	--
CDM Verifier:	Yes	***JI Verifier:***	--
Industry Sector Expert for Sectoral Scope(s):	Sectoral scope 4, 5, 13		
Technical Reviewer for (group of) methodologies:			
ACM002, AMS-I.A-D, AM0019, AM0026, AM0029, AM0045	Yes		

Høvik, 22 December 2006

Einar Telnes
Director, International Climate Change Servicer

Michael Lehmann
Technical Director

CERTIFICATE OF COMPETENCE

Raman Venkata Kakaraparthi

Qualification in accordance with DNV's Qualification scheme for CDM/JI (ICP-9-8-i1-CDMJI-i1

GHG Auditor:	Yes		
CDM Validator:	Yes	***JI Validator:***	--
CDM Verifier:	Yes	***JI Verifier:***	--
Industry Sector Expert for Sectoral Scope(s):	Sectoral scope 5		
Technical Reviewer for (group of) methodologies:			
ACM002, AMS-I.A-D, AM0019, AM0026, AM0029, AM0045	Yes		

Høvik, 30 October 2007

Michael Lehmann
Technical Director, International Climate Change Services

Murali Govidarajulu

Qualification in accordance with DNV's Qualification scheme for CDM/JI (ICP-9-8-i1-CDMJI-i1

GHG Auditor:	Yes		
CDM Validator:	--	***JI Validator:***	--
CDM Verifier:	--	***JI Verifier:***	--
Industry Sector Expert for Sectoral Scope(s):	--		

Høvik, 6 November 2006

Einar Telnes
Director, International Climate Change Services

Michael Lehmann
Technical Director

CERTIFICATE OF COMPETENCE

Michael Lehmann

Qualification in accordance with DNV's Qualification scheme for CDM/JI (ICP-9-8-i1-CDMJI-i1

GHG Auditor:	Yes		
CDM Validator:	Yes	***JI Validator:***	--
CDM Verifier:	Yes	***JI Verifier:***	--
Industry Sector Expert for Sectoral Scope(s):	Sectoral scope 1, 2, 3		
Technical Reviewer for (group of) methodologies:			
ACM0001, AM0002, AM0003, AM0010, AM0011, AM0012, AMS-III.G	Yes	*AM0027*	Yes
ACM002, AMS-I.A-D, AM0019, AM0026, AM0029, AM0045	Yes	*AM0030*	Yes
ACM003, ACM0005, AM0033, AM0040	Yes	*AM0031*	Yes
ACM0004, ACM0012	Yes	*AM0032*	Yes
ACM0006, AM0007, AM0015, AM0036, AM0042	Yes	*AM0035*	Yes
ACM0007	Yes	*AM0038*	Yes
ACM0008	Yes	*AM0041*	Yes
ACM0009, AM0008, AMS-III.B	Yes	*AM0034*	Yes
AM0006, AM0016, AMS-III.D, ACM0010	Yes	*AM0043*	
AM0009, AM0037	Yes	*AM0046*	
AM0013, AM0022, AM0025, AM0039, AMS-III.H, AMS-III.I	Yes	*AM0047*	
AM0014	Yes	*AMS-II.A-F, AM0044*	Yes
AM0017	Yes	*AMS-III.A*	Yes
AM0018	Yes	*AMS-III.E, AMS-III.F*	Yes
AM0020	Yes		
AM0021, AM0028, AM0034, AM0051	Yes		
AM0023	Yes		
AM0024	Yes		

Høvik, 5 February 2007

Einar Telnes
Director, International Climate Change Services

Michael Lehmann
Technical Director

CERTIFICATE OF COMPETENCE

Michael Lehmann

Qualification in accordance with DNV's Qualification scheme for CDM/JI (ICP-9-8-i1-CDMJI-i1

GHG Auditor:	Yes		
CDM Validator:	Yes	***JI Validator:***	--
CDM Verifier:	Yes	***JI Verifier:***	--
Industry Sector Expert for Sectoral Scope(s):	Sectoral scope 1, 2, 3		
Technical Reviewer for (group of) methodologies:			
ACM0001, AM0002, AM0003, AM0010, AM0011, AM0012, AMS-III.G	Yes	*AM0027*	Yes
ACM002, AMS-I.A-D, AM0019, AM0026, AM0029, AM0045	Yes	*AM0030*	Yes
ACM003, ACM0005, AM0033, AM0040	Yes	*AM0031*	Yes
ACM0004, ACM0012	Yes	*AM0032*	Yes
ACM0006, AM0007, AM0015, AM0036, AM0042	Yes	*AM0035*	Yes
ACM0007	Yes	*AM0038*	Yes
ACM0008	Yes	*AM0041*	Yes
ACM0009, AM0008, AMS-III.B	Yes	*AM0034*	Yes
AM0006, AM0016, AMS-III.D, ACM0010	Yes	*AM0043*	
AM0009, AM0037	Yes	*AM0046*	
AM0013, AM0022, AM0025, AM0039, AMS-III.H, AMS-III.I	Yes	*AM0047*	
AM0014	Yes	*AMS-II.A-F, AM0044*	Yes
AM0017	Yes	*AMS-III.A*	Yes
AM0018	Yes	*AMS-III.E, AMS-III.F*	Yes
AM0020	Yes		
AM0021, AM0028, AM0034, AM0051	Yes		
AM0023	Yes		
AM0024	Yes		

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