VALIDATION REPORT

WMI CRANES LIMITED

5.50 MW Bundled Wind Power Project by WMI Cranes Ltd.

SGS Climate Change Programme
SGS United Kingdom Ltd
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United Kingdom

Date of Issue:	**Project Number:**
09/06/2010	CDM.VAL2065
Project Title:	
5.50 MW Bundled Wind Power Project by WMI Cranes Ltd.	
Organisation:	**Client:**
SGS United Kingdom Limited	WMI Cranes Limited
Publication of PDD for Stakeholders Consultation	
Commenting Period:	04/07/2008 to 02/08/2008
First PDD Version and Date:	Version 01 dated 01/07/2008
Final PDD Version and Date:	Version 09 dated 04/06/2010

Summary:

WMI Cranes Limited has commissioned SGS to perform the validation of the project: 5.50 MW Bundled Wind Power Project by WMI Cranes Ltd.

Methodology Used: AMS I. D

Version and Date: Version 13, valid from 14th December 2007

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and applicable CDM requirements.

The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews, follow up actions (e.g. site visit, telephone or e-mail interviews) and also the review of the applicable simplified methodology and underlying formulae and calculations.

The report and the annexed validation describes a total of (10) findings which include:

- (4) Corrective Action Requests (CARs);
- (6) Clarification Requests (CLs); and
- (0) Forward Action Requests (FARs).

All findings have been closed satisfactorily. The project will be recommended to the CDM Executive Board with a request for registration.

Subject:			**Document Distribution**
CDM Validation			
Validation Team:			
Ramkrishna Patil – Lead Assessor and local assessor Ravi Kant Soni – Assessor Sanjeev Kumar – Sub-scope Expert Abhishek Mahawar – Financial Expert			☒ No Distribution (without permission from the Client or responsible organisational unit)
Technical Review:	**Trainee Technical Reviewer:**		
Date: 14/06/10 Name: Kaviraj Singh			☐ Limited Distribution
Authorised Signatory:			
Name: Siddharth Yadav Date: 14th June 2010			☐ Unrestricted Distribution
Revision Number:	**Date:**	**Number of Pages:**	
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1	13/10/2009	65	
2	09/06/2010	71	

Abbreviations

AMS	Approved Methodology for Small Scale Projects
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CFO	Consent For Operation
CL	Clarification Request
CNX	CRISIL & NSE Index
CO2	Carbon Dioxide
COP/MOP	Conference of parties serving as the meeting of parties to Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EIA	Environment Impact Assessment
EPC	Engineering Procurement and Construction
FSR	Feasibility Study Report
GEDA	Gujarat Energy Development Agency
GHG	Greenhouse Gas(es)
I	Interview
INR	Indian Rupees
IRR	Internal Rate of Return
ISO	International Organizational for Standardization
kWh	Kilo Watt Hour
MEDA	Maharashtra Energy Development Agency
MERC	Maharashtra Electricity Regulatory Commission
MoEF	Ministry of Environment and Forest
MoV	Means of Verification
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MP	Monitoring Plan
MW	Mega Watt
NGO	Non Government Organization
NOC	No Objection Certificate
PDD	Project Design Document
PLF	Plant Load Factor
PPA	Power Purchase Agreement
QA/QC	Quality Assurance and Quality Control
RBI	Reserve Bank of India
SGS	Societe Generale de Surveillance
SSC	Small Scale Project Activities
TNEB	Tamil Nadu Electricity Board
UNFCCC	United Nations Framework Convention for Climate Change
WEG	Wind Electric Generators

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Annexes:

1. Validation Opinion

SGS United Kingdom Ltd has been contracted by WMI Cranes Limited to perform a validation of the project: 5.50 MW Bundled Wind Power Project by WMI Cranes Ltd. in India.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM), Validation and Verification Manual version 1 and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

By installation of 2 Nos. of Wind Electric Generators (WEG) of 0.6 MW capacity each in the state of Tamilnadu , 3 Nos. of Wind Electric Generators (WEG) of 0.6 MW capacity each in the state of Gujarat, and 2 Nos. of Wind Electric Generators (WEG) of 1.25 MW capacity each in the state of Maharashtra ,with total rated capacity of 5.5 MW and supplying the generated electricity to the Sothern and Western Grid, the project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

In our opinion, the project meets all relevant UNFCCC, CDM criteria and all relevant host country criteria. The project correctly applies methodology AMS I.D version 13. 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 total emission reductions from the project are estimated to be 89060 tCO2e over a 10 year crediting period, averaging **8,906 tCO2e** annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The project will hence be recommended by SGS for registration with the UNFCCC.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 14th June 2010

2. Introduction

2.1 Objective

WMI Cranes Limited has commissioned SGS to perform the validation of the project: 5.50 MW Bundled Wind Power Project by WMI Cranes Ltd. with regard to the relevant requirements for Clean Development Mechanism (CDM) project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

2.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, 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 Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

2.3 GHG Project Description

The proposed CDM project activity is an electricity generation project through Wind Electricity Generators (WEGs) to supply electricity to the Western Grid (Now integrated Northern, Eastern, Western and North Eastern grid) and Southern grid. The project will result in replacing the same amount of electricity from this grid which is dominated by fossil fuel based power plants. The project activity is located in Dhule district of Maharashtra state, Kuchchh district of Gujarat state and Tirunelveli district of Tamilnadu state in India. The WEGs in Maharashtra are of Suzlon make and WEGs in Gujarat and Tamilnadu are of Vestas RRB make. The project activity was already commissioned and is working in satisfactory condition. The project activity involved installation of two wind electricity generators of 1.25 MW capacity each commissioned on 30/09/2006 and 13/11/2006 in Maharashtra, two wind electricity generators of 0.6 MW capacity each commissioned on 29/03/2007 in Tamilnadu and three wind electricity generators of 0.6 MW capacity each commissioned on 03/10/2007, 28/12/2007 and 07/02/2008 in Gujarat. This was checked during the site visit and cross-checked from commissioning letter and found acceptable.

2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Mr. Ramkrishna Patil	Lead Assessor and local assessor	SGS India
Mr. Ravi Kant Soni	Assessor	SGS India
Mr. Sanjeev Kumar	Sub-scope Expert	SGS India
Mr. Abhishek Mahawar	Financial Expert	SGS India

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project document version 01 dated 01/07/2008 and the subsequent versions dated 11/11/2008, 29/11/2008, 31/03/2009,02/07/2009, 10/10/2009, 20/11/2009, 13/02/2010 and version 09 dated 04/06/2010 (final version). The assessment is performed by trained assessors using a validation protocol attached as Annex 2 Table 2

The site visit was performed on 29th August 2008 by Mr. Ramkrishna Patil (Lead Assessor) and Mr. Ravikant Soni (Assessor). The results are summarized in the Local Assessment Checklist attached as Annex 1. Validation team has confirmed the statements of the PDD through review of documents.

3.2 Use of the Validation Protocol

The validation protocol used for the assessment is designed in accordance with the Validation and Verification Manual, Version 1 dated 28 November 2008. It serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation (reporting).

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of Verification (MoV)	Comment	Conclusion/ CARs/CLs
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	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 (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CL) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this project is attached as Annex 2 to this report

3.3 Findings

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

A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR).** A CAR

is issued, where:

I. The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
II. The CDM requirements have not been met;
III. There is a risk that emission reductions cannot be monitored or calculated.

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

A Forward Action Request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.

Corrective Action Requests and Clarification Requests are raised in the draft validation protocol and detailed in a separate form (Annex A.3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to CLs and FARs.

3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team. Findings can be raised at this stage and client must address them within agreed timeline.

4. Validation Findings

4.1 Approval

The Host Party for this project is India. India has ratified the Kyoto protocol on 26th August 2002. A Letter of Approval (LoA) or Host Country Approval (HCA) from the Indian DNA was not submitted by the project participant (PP). **CAR #1 was raised** asking the PP to submit the LoA from the Indian DNA. The PP received the HCA for the present project activity on 17/10/2008 issued by the Indian DNA (reference number 4/13/2008-CCC). The PP has submitted the Letter of Approval to the validation team. This letter was checked by the validation team and the project activity name and PP name indicated in the HCA and in section A.1 of the PDD were found to be the same. The LoA clearly confirms that the Government of India ratified the Kyoto Protocol in August 2002; participation is voluntary for the project activity and it is clearly mentioned that project activity contributes to Sustainable Development of India. It has been confirmed that LoA is unconditional with respect to party to the Kyoto Protocol, voluntary participation, contribution towards sustainable development and title of the project activity. Thus LoA is in accordance with paragraphs 45-48 of the Validation and Verification Manual (VVM) and **CAR #1 was closed**.

4.2 Participation Requirements

The host Party for this project is India. India has ratified the Kyoto protocol on 26th August 2002. This was checked from the UNFCCC website http://maindb.unfccc.int/public/country.pl?country=IN.

The Project Design Document (PDD) mentions WMI Cranes Limited as a PP for the project activity and this participation has been approved in the LoA by the Indian DNA (reference number 4/13/2008-CCC dated 17/10/2008) and is accepted. No Annex I Party has been identified in the PDD and therefore no further Letter of Approval was available. It is observed that the CDM EB has agreed that the registration of a CDM project activity can take place without an Annex I Party being involved at the stage of registration although it should be noted that before CERs can be transferred to an Annex 1 Party, a Letter of Approval from Annex 1 Party will need to be submitted.
The MOC letter as per the latest UNFCCC format was provided by the PP. The name of the person mentioned in MOC was checked with the name mentioned in PDD version 1.2 and it was found to be consistent and hence this was accepted.

The proposed CDM project has been webhosted on the UNFCCC website http://cdm.unfccc.int/Projects/Validation/DB/1HJEFKI6HVF7BQB5UCB6K5PN1R2ZJE/view.html for global stakeholder's process to invite comments as per the CDM requirements. As per the CDM EB guidelines the proposed CDM project has been webhosted from 04/07/2008 until 02/08/2008.

4.3 Project Design Document including Project Description

The PDD was not as per guidelines for CDM-SSC-PDD. It is found that section A.4.1.4 of the PDD version 01 was exceeding more than one page, thus **CAR #2 was raised.** In response to CAR #2 a revised PDD was submitted by the PP and was found to be in accordance with the guidelines for completing CDM-SSC-PDD version 05 and CDM-SSC-PDD template version 03. This is accepted by the assessment team and thus **CAR #2 was closed out.**

It was found that C.1.1 of version 01 of the PDD indicated 26/07/2006 as project activity starting date. For the start date **CL #9 was raised** and discussed in section 4.7 of the report.

The PP did not submit the applicable ownership documents or licenses which allow the implementation of the project activity, thus **CL #3 was raised**. In response to CL #3 the PP submitted the purchase orders (/10/), Commissioning Certificates (/13/), Power Purchase Agreement (/12/) and approvals (/14/) for the project activity. **CL #3 was closed out**. The operational lifetime and the technical specifications mentioned for the project activity were required to be cross-checked with the purchase orders therefore **CL #4 was raised**. In response to CL #4, the PP provided the purchase order copies dated 26/07/2006 for two windmills in Maharashtra, dated 01/02/2007 for two windmills in Tamilnadu and dated 04/06/2007 for three windmills in

Gujarat along with the technical specifications. The technical specifications and operational lifetime were cross-checked with the same mentioned in the PDD and were found to be acceptable. The operation lifetime was accepted as 20 years after reviewing the technical specifications for the project activity. **CL #4 was closed out.** The PP submitted a letter of undertaking dated 06/12/2008 mentioning that the project technology will not be substituted or replaced by more efficient technology during the crediting period.

The PP submitted a certificate from the chartered accountant P. Sanghani & Co. which mentions the project costs and financing structure. The letter was checked and the project costs were the same as mentioned in the financial calculations, the letter also mentioned that no ODA was used and the project was financed by debt and promoter's contribution. The financial structure has been cross checked with the loan documents and by discussion with the PP. Thus it is concluded that the project activity is not involving any Official Development Assistance (ODA)

4.4 Eligibility as a Small Scale Project

The project activity is electricity generation from wind energy and supplying the same to the Western grid (Now integrated Northern, Eastern, Western and North Eastern grid) and Southern grid. The total capacity of the project is 5.5 MW which is less than the 15 MW limit for a small scale project activity. Thus the project activity is a grid connected renewable electricity generation and total capacity is less than 15 MW, thus the project is eligible for small scale project activity and following AMS I.D. version 13 valid from 14/12/2007.

4.5 Applicability of selected methodology to the project activity

The project activity falls into the project categories of Scope 01, Energy Industries ("renewable energy projects') and applies the methodology AMS I.D; version 13.This methodology is applicable to grid connected renewable power generation project activities that involved electricity capacity addition. The scope of the project is correctly identified because it is a wind power project. The PDD discusses all the applicability criteria of the applied methodology AMS I.D, in relation to the proposed CDM project activity and provides the justification. The project activity is a renewable energy based power generation which will export generated power to the Western Regional grid of India; which is part of NEWNW grid and Southern Grid of India.

4.6 Project Boundary

As per the guidelines mentioned in the methodology AMS I.D, version 13," the physical, geographical site of renewable generation sources" The project activity will supply electricity to the Western region (Now integrated NEWNW) grid and Southern grid. The project boundary includes the WEGs and regional grid which has been shown pictorially in the PDD. The project boundary is described as regional grid along with the details for metering points, and the same was checked and discussed during the site visit and found acceptable.

4.7 Baseline Selection and Additionality

The project applied baseline as mentioned in the small scale methodology AMS I.D. version 13 valid from 14/12/2007 for "Grid connected renewable electricity generation" as per Appendix B of the simplified modalities and procedures for small-scale CDM project activities. The project activity generates electricity from wind mills and supplies the same to the Western Grid (Now integrated Northern, Eastern, Western and North Eastern grid) and Southern grid and thus replaces electricity which would have been generated from fossil fuel and therefore contributes to conservation of fossil fuel. The project activity falls within category AMS I.D. of appendix B.

4.7.1 Additionality

The project has adopted the Investment barrier to discuss additionality of the project activity. The same is discussed herewith. The investment barrier calculates equity IRR for the project activity. The PP has also analysed sensitivity for the project activity considering the net electricity generation. The project costs, O&M costs, income from sales of electricity were not considered for sensitivity analysis. In order to get all the related documents on the basis of which the project was shown additional, **CAR #6 was raised**.

The investment analysis described in section B.5 of the PDD was discussed with the PP. The benchmark for the project activity was set at 15.79 % return on equity as per the Gordon model of Dividend Capitalization method. The assumptions used for the calculation of this benchmark are as follows:

1. The benchmark selected for the equity IRR applicable for the project activity is derived based on the government bond rates increased by a suitable risk premium. The risk premium has been calculated as 8.30% which is based on the bond yield of 7.50% which is referred from RBI which can be cross-checked at (http://www.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=7549) and
2. The Average Dividend yield was taken as 1.79% which is based on Data of CNX index from 1st April 2005 to 31st March 2006 (http://www.nse-india.com (Open >Indices/statistics/Historical - P/E, P/B & Div. Yield values Select parameter as Divd Yield for CNX 100))
3. The growth rate has been considered as 9% referred (http://indiabudget.nic.in/ub2006-07/frbm/frbm1.pdf (page 5 item 7))
4. The inflation is accounted as 5% the same referred and cross-checked from (http://www.banknetindia.com/banking/2policyapril06.htm point no .91).

Based on the above data the risk premium has been estimated to be 8.30%. The required rate of return has been estimated to be the sum of Bond Yield (7.50 %) and risk premium (8.30 %). Thus the required rate of return becomes 15.79 %. The PP has not considered the additional risk premium for windmill projects; therefore the calculated value is conservative. The selected benchmark is in line with para 110 of VVM version 01 and is accepted. The PP has mentioned the equity IRR for each sub bundle for the project activity without CDM benefits which stands to be 13% for sub bundle 1 (Maharashtra site), 7.79% for sub bundle 2 (Gujarat site) and 7.86% for sub bundle 3 (Tamilnadu site). The calculation and assumptions were provided in the excel spreadsheet which were checked by the assessment team and found to be acceptable.

The appropriateness of the input values for the financial calculation has been checked as follows:

1. The PLF value referred to 20% for wind mills in Maharashtra state (As per MERC Tariff order http://www.mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf) and 26.70% for wind mills in Tamilnadu (As per TNEB Tariff order http://tnerc.tn.nic.in/orders/nces%20order%20-approved%20order%20host%20copy.pdf) and 23% for wind mills in Gujarat state (As per Gujarat Tariff order http://www.gercin.org/docs/Orders/Nonconv%20orders/Year%202006/wind%20enrrgy%20tariff.pdf) for the electricity generation from the project activity; the same was mentioned in the tariff orders of state electricity board and is accepted.. The 5% deration due to aging has been considered after 10 years which reduces the efficiency on rotating machine and electricity generation. This has been checked with the “Wind Energy Information 2005/2006” A report by TERI, ENVIS Centre on Renewable Energy and Environment and is accepted.
2. The tariff rate has been taken as INR 3.50 per KWh with an escalation of INR 0.15/year up-to 13th year for wind mills in Maharashtra from the MERC order dated 24/11/2003 (http://www.mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf point 1.5.3.1 and page 18 of 176), INR 2.90 per KWh for wind mills in Tamilnadu from TNERC order dated 15/05/2006 (http://tnerc.tn.nic.in/orders/nces%20order%20-approved%20order%20host%20copy.pdf point 9.5, page 91) and INR 3.37 per KWh for wind mills in Gujarat from GERC order dated 11/08/2006 (http://www.gercin.org/docs/Orders/Nonconv%20orders/Year%202006/wind%20enrrgy%20tariff.pdf, point 16 and page 11) and same was cross checked with PPA.(/12/)
3. The PP has also provided the minutes of meeting dated 26/05/2006 which clearly mentioned that the total investment in 5.5 MW to be 28.15 crore (INR 281.5 million) with equity 68% and loan 32% for the entire project. The document has considered the interest rate as 10.75 %. The O&M cost and insurance cost is as per the minutes of meeting dated 26/05/2006. The copy of purchase orders (/10/) for the project activity have been cross checked for the project cost and capacity which was used in financial analysis sheet. The bank interest rate and terms and conditions have been cross checked with the bank loan sanction letter. Thus the input values used for financial calculations were available at the time of conceptualization of the project activity and is accepted.

Following receipt of three requests for review during the publication period, the validation team has issued and submitted in response additional study findings and statements which have been incorporated to this validation report. The PP has chosen to add such additional findings and statements in their PDD for clarity purposes.

Validation of PLF, in line with VVM para. 111 (c) and 112 (a) and EB 48 Annex 11:

For the proposed project activity, the PP has considered respective state electricity regulatory commission tariff order for the PLF for respective sub bundle. The PLF mentioned in respective state electricity regulatory commission tariff order is as below

Sub-bundle	PLF considered for the proposed project activity
Maharashtra	20.0%[1]
Tamilnadu	26.7%[2]
Gujarat	23.0%[3]

The PLF has been validated as per the guidelines of Annex 11 EB 48. The project activity has three sub-bundles located in three different states (Maharashtra, Tamilnadu and Gujarat) and only Maharashtra sub-bundle has used the debt from bank and for the rest two sub-bundles the financial model is based on 100% equity. For the Maharashtra sub-bundle activity, the loan was financed from ING Vysya Bank Ltd. As stated above, the PP has considered 20% PLF for Maharasthra sub-bundle, determined by the Maharashtra Electricity Regulatory Commission (MERC) order and the same PLF (20%) was used whilst applying for the term loan. This has been cross checked with the letter issued by ING Vysya Bank Ltd no. ROEC/MUM/320/2009-10 dated 18/11/2009. With the support of this letter, it can be stated that the PP follows the guidance (EB48, Annex 11) wherein it accepts the PLF provided to banks and/or equity financiers while applying the project activity for project financing. It is also important to note here that the same PLF has been approved by the Maharashtra State Electricity Distribution Company Limited (MSEDCL) in as much as it forms part of the PPA, and followed the EB48 (Annex 11) guidance which allow the PLF provided to government while applying the project activity for implementation approval

Since the rest two sub-bundles (Tamilnadu and Gujarat) are equity based so the PP has followed the EB guidance (EB48, Annex11) by opting the option (b) i.e. the PLF determined by a third party contracted by the PP. Doing so, the PP had contracted Mitcon Consultancy Services Limited (an engineering company) to determine the PLF for each sub-bundle. The submitted report entitled “Determination of Plant Load Factor for Wind Turbine Generators” has been reviewed by the validation team. The PLF calculated, for all three sub-bundles, by contracted third party are lesser than the figures used for investment analysis. In fact, the PP has actually used the conservative figures whilst computing the IRR for the project activity..

PLF determined by the third party contracted by the PP:

Sub-bundle	Plant Load Factor determined by the third party
Maharashtra	19.42%
Tamilnadu	22.73%
Gujarat	16.96%

Considering the above discussion, it is concluded that the PLF arrived following guidance of EB48, Annex 11 is lower than the actual considered. Hence the PLF considered for each sub-bundles of the project is not only appropriate but also a conservative estimate for the IRR calculation and hence it is accepted.

This established fact of conservativeness is further supported by the actual PLF reported in the referred states. To give a firm assurance on the issues, the PLFs has been further cross checked with publically available information and also with actual generation data as discussed here forth.

a) Maharashtra Sub-bundle

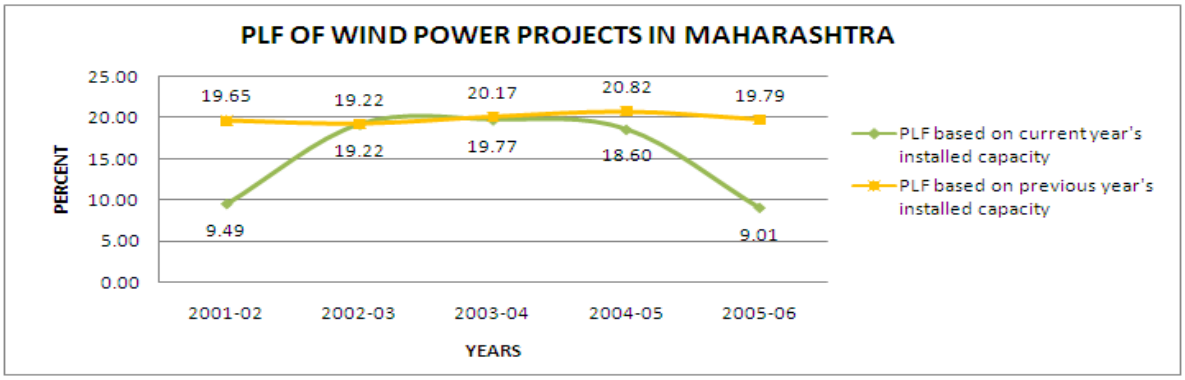
The graph below shows the average PLF achieved in Maharashtra over the 5 year period, prior to project activity start date. The data has been compiled by Maharashtra Energy Development Agency (MEDA) which is a state nodal agency under the umbrella of the Ministry of New and Renewable Energy (MNRE) and is

[1] http://www.mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf

[2] http://tnerc.tn.nic.in/orders/nces%20order%20-approved%20order%20host%20copy.pdf

[3] http://www.gercin.org/docs/Orders/Nonconv%20orders/Year%202006/wind%20enrrgy%20tariff.pdf

available on its website- http://www.mahaurja.com/PG_WE_Overview.html.
While the PLF based on previous year's installed capacity is floating more or less around 19-20 %, the PLF based on corresponding year's data increased to about 20 % in the year 2003-04 and since then has showed a declining trend, reaching to a low of 9.01 % in 2005-06. If the average of five years for these two sets of data is computed, they work out to be 19.93% and 15.22%.



Source: http://www.mahaurja.com/PG_WE_Overview.html

Fig 1: Average PLF achieved in Maharashtra over the 5 year

Actual PLF achieved by the WTGs of project activity Maharashtra Sub-bundle:
The actual generation achieved by the WTGs of the PP is very low, which in turns proves the conservativeness of the PLF considered for the investment analysis. The same has been checked from the credit report data from the Maharashtra State Electricity Distribution Company Ltd. The summary of the generation and the PLF are as follows

Actual reported PLF for the sub-bundle in Maharashtra

K-231			
Year	Installed capacity(MW)	Generation(MWh)	Plant Load Factor (%)
2007(January-December)	1.25	1765.177	16.12
2008(January-December)	1.25	1881.555	17.18
K-233			
2007(January-December)	1.25	1712.753	15.64
2008(January-December)	1.25	1884.006	17.20

It is evident from the above discussion that the WTGs of the PP in Maharashtra sub-bundle had never crossed the considered PLF for the investment analysis i.e. 20%. Hence, under these circumstances the PLF of 20% for wind power projects in Maharashtra is most appropriate. The same has also been considered by the Maharashtra Electricity Regulatory Commission (MERC) while calculating the Tariff Rate for energy generated from such wind projects.

b) Gujarat Sub-bundle

An analysis of the two years of data has been carried for the Gujarat state and it is evident from the analysis that the PLF in Gujarat during 2005-06 and 2006-07 was hovering in the range of 10%.

Publically available PLF in Gujarat

Year	Installed capacity(MW)[4]	Generation(MWh)[5]	Plant Load Factor (%)

[4] http://mnes.nic.in/annualreport/2007_2008_English/Chapter%205/chapter%205_1.htm

2005-06	352.6	284405.61	9.207
2006-07	570.47	454914.67	9.103

Actual Plant Load Factor Achieved by the WTGs of PP situated in Gujarat Sub-bundle:
The actual generation achieved by the WTGs of the PP, situated in Gujarat sub-bundle is 13.05%. The same has been checked from the credit report generated by the Gujarat Energy Development Agency (GEDA).

Actual monitored PLF for Gujarat sub-bundle

VRRB-600/07-08 733, VRRB-600/07-08 734 and VRRB-600/07-08 735 (3 numbers of 0.6 MW WTG)			
Year	Installed capacity(MW)	Generation(MWh)	Plant Load Factor (%)
2008(January- December)	1.8	2057.745	13.05

Hence it was concluded that the PLF considered for the present case is appropriate, realistic and conservative assumption.

c) Tamilnadu Sub-bundle

An analysis of the last five years of data has been carried for the Tamilnadu state and it is evident from the analysis that the PLF in Tamilnadu from 2003-04 to 2007-08 varies from 14% to 18% (http://www.teda.gov.in/page/Achievements.htm)

Publically available PLF in Tamilnadu

Year	Cumulative Installed capacity (MW)	Cumulative Generation(MWh)	Plant Load Factor (%)
2003-04	1361	1714475	14%
2004-05	2040	2260732	13%
2005-06	2898	3444281	14%
2006-07	3475	5268840	17%
2007-08	3856	6092369	18%

Actual Plant Load Factor Achieved by the WTGs of PP situated in Tamilnadu Sub-bundle:

The actual generation achieved by the WTGs of the project activity, situated in Tamilnadu sub-bundle is 20.51% and 21.53% for the years 2007-08 and 2008-09 respectively and proves the conservativeness of the PLF considered. The same has been checked from the Tamilnadu Electricity Board, Tirunelveli Region.

Actual monitored PLF for Tamilnadu Sub bundle

WTG HTSC No. 2277			
Year	Installed capacity(MW)	Generation(MWh)	Plant Load Factor (%)
2007-08(April – March)	0.6	1078.119	20.51
2008-09(April – March)	0.6	1131.975	21.53
WTG HTSC No. 2281			
2007-08(April – March)	0.6	854.487	16.25
2008-09(April – March)	0.6	1069.371	20.34

Thus the PLF taken from the tariff orders of the respective state electricity regulatory commission is appropriate and is accepted.

In the context of the guidance set in VVM para 111(c) and 112(a), the validation team would like to clarify that the PP has not relied on the FSR values and also it was not approved by national authorities for the project

[5] http://www.geda.org.in/pdf/wind/Windfarms-PowerGeneration.pdf

activity because of certain justified rational and hence the reported values in the feasibility report can not be assured correct. The PLF considered in the FSR prepared by the Chartered Accountant (CA) H.N. Mehta Associates dated 11/05/2006 has taken from the estimated generation by different suppliers for particular make (Suzlon considers 2.8 million kWh/WTG/year for its S-70, 1.25 MW WTGs, where as RRB considers a generation of 1.4 million kWh/WTG/year for its WTG Pawan shakati PS-600). The PLFs as per feasibility study are given in the table below. The reported PLF is taken from supplier's data which is based on wind velocity, grid and machine availability which itself is unpredictable.

PLF calculated in feasibility study report

Sub-bundle	PLF as per the Feasibility Study Report
Maharashtra	25.60%
Tamilnadu	26.64 %
Gujarat	26.64%

There are two important points of discussion here; a) these PLF are given irrespective of project site b) recommending a higher PLF makes a business sense for the WTG supplier. Also, it is important to note that the PLF figures, given by the supplier, are estimated at the controller point of the WTG and not at the receiving end of the grid. This doesn't account the line losses which will further reduce the power export and eventually the returns from the project activity. Its cleat from the financial model that in the computation of IRR, the PP has not considered any IRR loses which leads to a conservative calculation. Thus this estimation made in the FSR is conditional and overestimated as compare to the actual PLF achieved for the project activity and hence not considered for the financial calculations. The above discussion reveals that the PLF taken from respective state electricity commission is appropriate and accepted.
In summary, the PLF considered for the project activity is proved conservative, as discuss above, even after following the latest EB guidance (EB48 Annex 11).

Validation of Tariff rate:

The tariff considered for different sub-bundles of the project are given below.

Tariff considered for the project activity

Sub-bundle	Tariff rate considered for the subject project	Tariff rate as per the Feasibility Study Report
Maharashtra	INR 3.50[6] per kWh with an escalation of INR 0.15 per year until 13th year .	INR 3.50 per kWh with an escalation of INR 0.15 per year until 13th year.
	INR 3.50 per kWh from 14th year to 20th year	INR 3.50 per kWh from 14th year to 20th year
Tamilnadu	2.90[7] per kWh	2.70 per kWh
Gujarat	3.37[8] per kWh	3.37 per kWh

The tariff considered for the present case is as per the tariff orders of different sub-bundles. It is confirmed that the same tariff orders was available at the time of decision made and hence the considered tariff rate is acceptable. The same has been reflected in the Power Purchase Agreement between the PP and the respective state utility.

Details of Power Purchase Agreement

Sub-bundle	Rate	Reference
Maharashtra (2.5 MW), between PP and The Maharashtra State Electricity Distribution Company Limited.	INR 3.50 per kWh with an escalation of INR 0.15 per year from second year onwards until 13th year.	Exhibit-C page no. 25 of the PPA dated 05th December 2006

[6] http://www.mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf

[7] http://tnerc.tn.nic.in/orders/nces%20order%20-approved%20order%20host%20copy.pdf

[8] http://www.gercin.org/docs/Orders/Nonconv%20orders/Year%202006/wind%20enrrgy%20tariff.pdf

Gujarat (1.8 MW), between PP and Gujarat Urja Vikas Nigam Limited	INR 3.37 per kWh for 20 years	Article 5 of the PPA dated 5th December 2007
Tamilnadu WTG HTSC No. 2277 and 2281, EPA between the PP and Tamilnadu Electricity Board	INR 2.70 per kWh for 20 years	Page no.02, bullet no. 2, of the EPA dated 29/03/2007
Tamilnadu WTG HTSC No. 2281, Revised EPA between the PP and Tamilnadu Electricity Board	INR 2.90 per kWh for 20 years	Page no.04, bullet no. 4a, of the revised EPA[9] dated 02/05/2008

Justification for the tariff rate considered from 13th year to 20th Year in Maharashtra Sub-bundle

The PP has signed a power purchase agreement with MSEDCL to supply power generated from the windmill at the rate of INR 3.50/kWh for the first year and subsequent escalation of INR 0.15 per kWh per year. The PPA is valid for a period of 13 year, after which the purchase rate has not been specified by MERC. Hence, in the absence of any guideline the project promoter has considered the base price of INR 3.50 per kWh for 14th year to 20th year. This approach is substantiated by the fact that as per the MERC order [10] dated November 2007(Case No. 33 of 2007) the tariff rate of Group II projects (commissioned before 31/03/2003) was frozen at 90% of the lowest HT Tariff. The tariff rate for Group II projects starts with INR 2.25 per kWh at the year 1994-95 with 5% simple escalation for 8 years. For Group II projects who's Energy Purchase Agreement (EPA) has expired as on 31st March 2007, the tariff is reduced to fixed INR 1.70 per KWh. The order has mentioned that "*The Group II wind generators would be required to supply the energy compulsorily to MSEDCL. The rate of Rs. 1.17 per kWh is the highest proposed rate for purchase of energy and the Commission should suitably fix a lower tariff considering the fact that the cost is fully recovered by the wind generators and henceforth, only the Operation and Maintenance and incidental costs are to be recovered by Group II wind generators*" The same approach would anticipated for this project activity as well.

To check this applicability of the tariff rate, following excerpts taken from MERC order - Case No. 17(3), 3, 4 & 5 of 2002 dated 24/11/2003 & MSEB Policies on Wind Energy: Deviations from the Policies of GOM & Guidelines of MNES has been checked for the tariff rate that would be applicable after 13th year.
"The Commission notes that in Cost Plus Approach, which the Commission has adopted for tariff proposal, rate per unit charged by such projects during initial period of 10 years is bound to be higher as during this period the project has various debt related obligations. However, it is essential that the consumer is able to enjoy the benefit of cheaper power once all debt related obligations are paid off and project has virtually no variable costs." [11]
"The rate payable gets reduced after 10 years (i.e. after repayment of loan) so that the net average cost of energy gets reduced."[12]
"To ensure that developer does not remove the machine after availing higher purchase rate for 10 years, an agreement may be signed allowing MSEB to have second charge for first 10 years (when the lender institution shall have first charge on the machine) and subsequently MSEB shall have first charge for the balance 10 years."[13]
The above extracts indicate that the tariff rate will reduce after 13th year and due to this uncertainty the considered tariff rate after 13th year as INR 3.50/kWh is acceptable.
Hence the foregoing discussion clearly demonstrates that the tariff considered for each sub-bundle is appropriate and also reflects the actual situation and gives the realistic figure of return that is likely to be

[9] The EPA for the Tamilnadu sub-bundle has been revised on 02/05/2008 and the rate was increased from INR 2.70 per KWh to INR 2.90 per KWh . Hence for the present case INR 2.90 per KWh is conservatively considered.

[10] http://www.mercindia.org.in/pdf/Ord_20_11_2007_CNo_33_of_2007.pdf

[11] http://mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf – Refer Page No. 14, Paragraph 2 of the document.

[12] http://mercindia.org.in/pdf/Annexures.pdf – Refer Page No. 135, Paragraph 2 of the document.

[13] MSEB http://mercindia.org.in/pdf/Annexures.pdf – Refer Page No. 141, Point No. 15 of the document.

occurred from the project activity and considered for the demonstration of investment analysis for the present case.

The suitability of 5% escalation considered for the O&M costs

The escalation in the O&M cost of 5% is appropriate and a realistic assumption and the same is reflected both in the FSR prepared by the Chartered Accountant (CA) H.N. Mehta Associates for the Gujarat and Tamilnadu sub bundle, the Purchase Orders (PO) of Maharashtra sub bundle dated 26/07/2006 and the actual O&M contract[14] of respective sub-bundles. Thus this escalation of 5 % is a firm cost and also represents the actual situation. In spite of this, the price indices in the last few years have only been going up and never registered a decline. With the country experiencing double-digit inflation, any reduction in O&M Cost is only hypothetical. Moreover this 5 % escalation is also inline with the tariff orders of the respective state tariff orders.

Sub-bundle	Section of the tariff order of respective states
Maharashtra[15]	Section 2.2.4 of the report, page no.35 of 176
Tamilnadu[16]	Section 9.5 Tariff Computation, page no. 89, 90 of 114
Gujarat[17]	Section 10 O&M Expenses, page no. 7 of 23

The above discussion clearly demonstrates the tariff rate and escalation in the O&M cost considered for the present project and proves the appropriateness of the same. Thus the tariffs assumed for each of the sub-bundle components and the suitability of a 5% escalation considered for the O&M costs, are in line with the VVM para 111 (c) and 112 (a).

Project financial details were checked during the discussion with the PP during the validation process. The assumptions like PLF, annual depreciation for the project activity, tariff used for calculating the IRR for the project activity were checked with the tariff order of the state electricity regulatory commission and found to be acceptable as per para 109 of VVM version 01. With the above the input parameters, the equity IRR comes to be 13% for sub bundle 1 (Maharashtra site), 7.79% for sub bundle 2 (Gujarat site) and 7.86% for sub bundle 3 (Tamilnadu site), which is less than the benchmark thus project is additional due to investment analysis.

As per guidance 16 of investment analysis which states that the variables that constitute more than 20% of either total project cost or total project revenue should be subjected to reasonable variation. Thus the PP has considered PLF, O&M cost and project cost for the sensitivity analysis; Income from sales of electricity depends upon electricity generation and tariff rate. The tariff rate was constant at the time of conceptualization and variation in electricity generation has been considered by the PP. This tariff was constant for Gujarat and Tamilnadu wind mills for 20 years as per the state electricity regulatory commissions tariff order mentioned in point 2 of the above section. In Maharashtra wind mills the tariff rate is INR 3.50 per kWh with an escalation of INR 0.15/year up-to 13th year. And a constant rate of INR 3.50 per kWh from 14th year is taken as the rate after the 13th year is uncertain and is accepted as per MERC order (http://mercindia.org.in/pdf/Annexures.pdf) Page No. 135, Paragraph 2, Page No. 141, Point No. 15). The sensitivity analysis for the project activity has been carried out with increase and decrease in electricity generation by 5% and 10% to the base electricity generation with the respective PLF value for each state. The sensitivity analysis result indicates that increase in 10% electricity generation will improve the equity IRR and maximum value is 15.75% for Sub bundle 1 which is less than the benchmark value. The sensitivity analysis result indicates that decrease in O&M cost by 10% will alter the equity IRR value maximum to

[14] The O&M contract for the each sub bundle of the project activity. O&M contract for Tamilnadu sub bundle from RRB Energy Ltd dated 23/03/2009, O&M contract for Gujarat sub bundle from RRB Energy Ltd dated 26/09/2009, O&M contract for Maharashtra sub bundle from Suzlon Infrastructure Services Ltd dated 30/08/2008. All O&M contracts are considered 5% escalation for the project activity.

[15] http://www.mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf

[16] http://tnerc.tn.nic.in/orders/nces%20order%20-approved%20order%20host%20copy.pdf

[17] http://www.gercin.org/docs/Orders/Nonconv%20orders/Year%202006/wind%20enrrgy%20tariff.pdf

13.35%. The decrease in project cost by 10%, IRR value improves to 18.27% for Sub bundle 1. However the project cost available at the time of conceptualization was firm cost as per the minutes of meeting dated 26/05/2006. The project cost was also cross checked with Purchase orders of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated 04/06/2007 and found to be same as mentioned in the calculation. The project activity is already commissioned, thus the variation of the project cost is unrealistic and not possible. The calculations for the same were checked and found acceptable. Thus even if a 10% increase in electricity generation,, 10% decrease in O&M cost and with actual project cost occurs, the equity IRR does not cross the benchmark. The equity IRR is well below in case of sub bundle 2 and sub bundle 3. Thus the project is additional. The results of sensitivity analysis for each sub bundle with variation in saleable electricity generation, O&M cost and project cost are as follows

Saleable units (+) up / (-) down by	**-10.0%**	**-5.0%**	**0%**	**5.0%**	**10.0%**
Equity IRR Sub bundle 1 (Maharashtra site)	10.08%	11.51%	13.00%	14.33%	15.75%
Equity IRR Sub bundle 2 (Gujarat site)	6.18%	7.01%	7.79%	8.59%	9.33%
Equity IRR Sub bundle 3 (Tamilnadu site)	6.27%	7.06%	7.86%	8.58%	9.31%
Variation in O & M cost	**-10.0%**	**-5.0%**	**0%**	**5%**	**10.0%**
Equity IRR Sub bundle 1 (Maharashtra site)	13.35%	13.17%	13.00%	12.82%	12.65%%
Equity IRR Sub bundle 2 (Gujarat site)	8.04%	7.92%	7.79%	7.68%	7.57%
Equity IRR Sub bundle 3 (Tamilnadu site)	8.07%	7.97%	7.86%	7.74%	7.61%
Variation in project cost	**-10.0%**	**-5.0%**	**0%**	**5%**	**10.0%**
Equity IRR Sub bundle 1 (Maharashtra site)	18.27%	15.20%	13.00%	11.29%	9.90%
Equity IRR Sub bundle 2 (Gujarat site)	9.54%	8.62%	7.79%	7.04%	6.34%
Equity IRR Sub bundle 3 (Tamilnadu site)	9.54%	8.66%	7.86%	7.13%	6.46%

Based on the above discussion it can be concluded that the project activity without CDM funds is not a financially viable alternative as the financial returns from the project are not crossing the referred benchmark for the investment. Thus the project can be termed as additional due to investment barrier and hence **CAR #6 was closed out.**

4.7.2 Prior Consideration of the Clean Development Mechanism

The PP has not submitted the evidence for the start date of the project activity, thus **CL #9 was raised** and in response to CL #9 the PP has submitted the first purchase order of WTG dated 26/07/2006. This is the earliest action for the project activity as per para67 of EB 41; Thus CL #9 was closed out. The project activity start date is 26/07/2006 which is the date mentioned on the purchase order for the first wind mill of the project activity. The PP had a prior knowledge of CDM through other wind investor (Sun-n-Sand Hotels Pvt. Ltd) who was involved in the process of CDM registration at that time. The same was checked through the letter from the PP mentioning that the PP is well known about this investor and their wind projects submitted to UNFCCC with request for registration. Also subsequent to this, the meeting of board of directors was held on 24/03/2006 to carry out study to check the viability of the project activity. The Chartered Accountants "H.N.MEHTA ASSOCIATES" informed the PP that the investment in wind mills is risky due to unpredictable nature of wind and that the project is not commercially viable in absence of CDM revenue. This has been checked by reviewing the CA letter dated 11/05/2006. Then the PP has considered CDM revenue for the project activity through the extract of the Board meeting dated 26/05/2006; the extract mentions that the board has considered investing in wind project revenue from sale of carbon credit when decided to go ahead with the investment in wind mills. Besides the CDM consideration, project participant has taken real actions to secure the CDM status in parallel with commissioning of project activity. The real action taken to secure CDM activity in parallel with its implementation is as follows:

Sr. No.	Action taken to secure the CDM status	Date / Period
1.	Board of Directors Meeting for viability of project	24/03/2006
2.	Chartered Accountants letter indicating non viability of project	11/05/2006
3.	Board of directors meeting considering CDM revenue	26/05/2006
4.	First Purchase order for the Wind Mills	26/07/2006
5.	Internal letter from Director to Mr. N. L. Narasimhan to start up the CDM project cycle.	14/08/2006
6.	Mr. N.L Narasimhan replies to the Director stating to hold the CDM cycle until the last PO released, so as to reduce the transaction cost through interoffice memo.	28/08/2006
7.	Director replies to Mr. N. L. Narasimhan.	15/09/2006
8.	Commissioning of the 1.25 MW WEG in Maharashtra.	30/09/2006
9.	Commissioning of the 1.25 MW WEG in Maharashtra.	13/11/2006
10.	Released Purchase order for 2 nos. of 0.6 MW WEG in Tamilnadu.	01/02/2007
11.	Commissioning of the 0.6 MW WEG in Tamilnadu.	27/03/2007
12.	Commissioning of the 0.6 MW WEG in Tamilnadu.	29/03/2007
13.	Released Purchase order for 2 nos. of 0.6 MW WEG in Gujarat.	04/06/2007
14.	Released Purchase order for additional 1 no. of 0.6 MW WEG in Gujarat. All PO has been released and PP starts for searching CDM consultant	04/06/2007
15.	Negotiation with the consultants for CDM services	June 2007- October 2007
16	Released Work Order to CDM Consultants	22/10/2007
17	HCA application	May 2008
18	Started approaching DOEs	May 2008
19	Appointed DOE	23/06/2008

The PP has considered CDM revenue through the Board Resolution dated 26/05/2006. Prior to the Board Resolution, the feasibility of the project was done by the Chartered Accountant. This study also considers the possibility of CDM revenue for the project activity which may make the project viable. The director informed Mr. N. L. Narasimhan (Vice President, Finance) to start up the CDM project cycle and start to appoint the agency to prepare the necessary documents for obtaining carbon credit. In response to that Mr. N. L. Narasimhan has informed the director that they can proceed with discussion with the CDM consultant after finalizing the remaining purchase orders and the bundle will be formed after giving the purchase order to reduce the transaction cost. These correspondences have been checked through the certified copy of inter office correspondence. The procedure of the inter office correspondence have been cross checked from other correspondence of the company and is accepted. The evidences for all events were checked and found to be acceptable. As the project was conceptualized for 5.5. MW capacity in the Board Resolution, it was decided to go for CDM after release of last purchase order because the exact location for WTG was not confirmed and purchase orders mention the exact location available for the project activity. The CDM process can be started only after knowing the exact locations for the WEGs involved in the project activity. The PP has started the CDM process after finalizations of Purchase Orders. Thus the PP had appointed the CDM consultant after releasing the last purchase order. The main delay is due to waiting for the last purchase order to reduce the transaction cost which was checked through the letter of Inter office correspondence dated 28/08/2006. As per the Board Resolution, 5.5 MW capacity was considered and the PP had not considered smaller capacity for the project activity to avoid the transaction cost. The same has been checked and found to be appropriate. The PP was aware about the CDM project activity and revenue from CDM was the decisive factor for the project activity and the PP has taken real action to secure CDM status for the project in parallel with implementation. This is in line with annex 46 of EB41 “Guidance on the demonstration and assessment of prior consideration of the CDM”.

4.7.3 Identification of alternatives (if applicable)

This section is not applicable as the alternatives has not identified for the project activity. The continuation of fossil fuel dominated grid generation was the most realistic baseline scenario for the project activity.

4.7.4 Investment analysis (if applicable)

The Project Participant has demonstrated the financial infeasibility for the project activity as compared with benchmark analysis. The financial analysis and benchmark analysis has been discussed in section 4.7.1 of the report.

4.7.5 Barrier analysis (if applicable)

This section is not applicable as the project activity has not mentioned any barrier analysis for the project activity.

4.7.6 Common practice analysis

This section is not applicable as the project activity has not mentioned common practise analysis for the project activity. As per methodology, even it is not required and is acceptable.

4.8 Application of Baseline Methodology and Calculation of Emission Factors

The present project activity is generating wind power and supplying it to Western grid (Now integrated Northern, Eastern, Western and North Eastern grid) and Southern grid. The project has applied baseline methodology as mentioned in the small scale methodology AMS I-D version 13 valid from 14/12/2007 for "Grid connected renewable electricity generation" as per Appendix B of the simplified modalities and procedures for small-scale CDM project activities. The PP did not provide an excel spreadsheet for the calculation of emission reductions for the project activity and the evidence for the grid and machine availability and losses considered for the calculation was not clear. The PP did not use the latest available version of CEA for the emission factor calculation. Thus **CL #7 was raised**. In response to CL #7 the project participant submitted a revised excel spreadsheet by considering the PLF from the tariff orders of state electricity regulatory commission. The revised excel spreadsheet has been checked for the estimation of emission reductions; however the revised PDD has removed these losses and considered PLF stated by MERC order 2003. This is accepted as the consideration of the losses due to grid and machine availability reduces the revenue from the project activity and thus reducing the returns from project activity. Thus to have a conservative approach for IRR estimation the elimination of these losses was accepted. The revised estimation of emission reductions has been checked and is accepted. Hence there is slight difference (@ 2%) in estimated amount of emission reductions in the PDD submitted with request for registration when compared to PDD uploaded for international stakeholder consultation.

The PP now used the latest available version at the time of PDD submission for validation i.e. version 3 of Carbon Dioxide baseline database published by Central Electricity Authority (CEA), Government of India for calculation of the emission factor. This is acceptable and thus **CL #7 was closed out**. The weighted average emission rate for the Western grid (Now integrated Northern, Eastern, Western and North Eastern grid) and Southern grid has been considered for emission reduction calculation. The data for the same is provided by the CEA which can be referred at the link (http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm) thus the same was acceptable. The revised PDD mentions the weighted average grid emission factor as 0.86 tCO2/MWh for integrated Northern, Eastern, Western and North Eastern grid and 0.72 tCO2/MWh for southern grid; this was checked with the latest version of CEA version 03. However the emission factor will be monitored ex-post for the project activity. The latest available version of Carbon Dioxide baseline database published by Central Electricity Authority, Government of India will be used for the same. The description for grid emission factor has been removed from section B.6.2 of revised PDD version 06 for better transparency and to avoid further confusion. This emission factor is an ex-post monitoring parameter and is already mentioned in section B.7.1 of PDD and is accepted. The baseline emission calculations and emission reductions were found to be in order during the desk review and on site. The emission reduction figures will further be checked during verification. As per methodology AMS I.D. version 13 dated 14/12/2007, leakage due to project activity will be considered only when there is an equipment transfer from one place to another but this is not the case with present project activity hence no leakage is considered.

4.9 Application of Monitoring Methodology and Monitoring Plan

The present CDM project activity uses monitoring methodology AMS I.D. version 13 dated 14/12/2007 for "Grid connected renewable electricity generation".

CL #5 was raised and the PP was asked to discuss the QA/QC procedure for the project activity and ISO certificates of EPC contractor. Also the PP was asked to mention the proportioning procedure for the calculation of net electricity export to grid and to include all required parameters in monitoring section B.7.1. In response the project proponent clarified that the operation and maintenance is being carried out by supplier and has proper procedures for providing training to its employees. The QA/QC procedure was mentioned in the PDD. The PP mentioned the proportioning procedure for the calculation of net electricity export to grid and included all required parameters in section B.7.1 of revised PDD. Thus **CL #5 was closed out.**

The start date for crediting period was not appropriate, thus **CL #8 was raised** and in response to CL #8 the PP has mentioned the appropriate date for the start date of crediting period and is accepted, Thus **CL #8 was closed out.**

As per the guidelines for completing the simplified project design document (CDM-SSC-PDD) version 05 dated the 14th September 2007, the section B.6.2 has mentioned that **"***This section shall include a compilation of the data and parameters NOT monitored but determined upfront so as to be available for validation. Data from monitoring (e.g. measurements after the implementation of the project activity) should not be included here but in the table in section B.7.1."*

For the proposed project activity, there was no ex-ante parameter used for the emission reduction calculations and was fixed throughout the crediting period. Thus the PDD did not mention anything in section B.6.2. However the parameters available at the time of validation for the estimation of the emission reductions are; Installed capacity, PLF and Grid emission factor and same has been included in the section B.6.2 of the revised PDD.

4.10 Environmental Impacts

The PP mentioned in the PDD that the project activity does not require an EIA to be carried out. The same was checked with the EIA notification which mentions the list of projects that requires an EIA, and according to the notification wind projects do not require an EIA to be carried out. The web-link for the notification is http://envfor.nic.in/legis/eia/so1533.pdf . The PP submitted the necessary consents and approvals for the project activity. In response the project proponent submitted MEDA clearance for commissioning of 2 nos. of 1.25 MW in Maharashtra dated 30/09/2006 and 19/10/2006, NOC from TNEB dated 27/03/2007, permission from GEDA dated 29/09/2007. The commissioning certificate for the project activity was checked and was found to be acceptable.

4.11 Local Stakeholder Comments

The project activity involved the installation of a 5.5 MW wind power project for electricity generation, which is being fed to the Western grid (Now integrated Northern, Eastern, Western and North Eastern grid) and Southern grid of India. The PP identified local villagers, and government institutions as local stakeholders for the project activity. PDD version 1 mentioned that the local stakeholder consultation was carried out but evidence for media used for the invitation, minutes of meeting, attendance sheet was not submitted, thus **CL #10 was raised** asking the PP for the same. In response to CL #10 the PP submitted evidences for media used for the invitation, minutes of meeting, attendance sheet. The meeting was carried out on 21/11/2007 in Maharashtra, 28/04/2008 in Gujarat and 06/02/2008 in Tamilnadu state for local stakeholder consultation. There was no negative comment for the project activity. A copy of Minutes of meeting was provided by the PP which was cross-checked with the original during the discussion at the time of site visit and found to be acceptable, thus **CL #10 was closed out.**

5. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this project.

5.1 Description of How and When the PDD was Made Publicly Available

The Project Design Document for this project was made available on the UNFCCC website http://cdm.unfccc.int/Projects/Validation/DB/1HJEFKI6HVF7BQB5UCB6K5PN1R2ZJE/view.html and was open for comments from 04/07/2008 until 02/08/2008. Comments were invited through the UNFCCC CDM homepage

5.2 Compilation of all Comments Received

No comments were received

5.3 Explanation of How Comments Have Been Taken into Account

No comments were received

6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
29/08/2008	Bharat Naik	Asst. Manager –CRM	O&M procedure, Monitoring procedure
29/08/2008	Pooja Sinha	Principal Consultant, MITCON	Monitoring procedure, Baseline and Additionality
29/08/2008	Vikash Kumar Singh	Consultant, MITCON	Baseline and Additionality
29/08/2008	Smitanshu Karekar	Chartered Accountant	Financial calculation
29/08/2008	Harshal Thakare	Local stakeholder	Stakeholder consultation
29/08/2008	Ghanshyam Patil	Store assistance, Local stakeholder	Employment and opinion about project.

7. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

/1.a/ PDD version 1 dated 01/07/2008 (submitted for international stakeholder's comments)
/1.b/ PDD version 2 dated 11/11/2008
/1.c/ PDD version 3 dated 29/11/2008
/1.d/ PDD version 4 dated 31/03/2009
/1.e/ PDD version 5 dated 02/07/2009
/1.f/ PDD version 6 dated 10/10/2009
/1.g/ PDD version 7 dated 20/11/2009
/1.h/ PDD version 8 dated 13/02/2010
/1.i/ PDD version 9 dated 04/06/2010 (Public and confidential) (Final)
/2/ Host Country Approval, reference number 4/13/2008-CCC dated 17/10/2008
/3/ Modalities of communication

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

/4/ IRR calculation sheet for the project
/5/ Board note dated 26/05/2006 as CDM consideration proof
/6/ Emission reduction calculation sheet
/7/ Certificate for no use of ODA for project activity by chartered accountant P. Sanghani & Co. dated 10/12/2008
/8/ MoM for stakeholder consultation process carried on 21/11/2007 in Maharashtra, 28/04/2008 in Gujarat, 06/02/2008 in Tamilnadu
/9/ Letter of undertaking for no change in technology
/10/ Purchase orders of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated 04/06/2007
/11/ QA/QC procedure of the supplier
/12/ PPA for WEG of 2 nos. of 1.25 MW in Maharashtra dated 05/12/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 02/05/2008 and WEG of 3 nos. of 0.6 MW in Gujarat dated 05/12/2007
/13/ Commissioning certificates for WEG of 2 nos. of 1.25 MW in Maharashtra commissioned on 30/09/2006 and 30/11 2006, Commissioning certificates for WEG of 2 nos. of 0.6 MW in Tamilnadu commissioned on 29/03/2007 and Commissioning certificates for WEG of 3 nos. of 0.6 MW in Gujarat commissioned on 03/10/2007, 28/12/2007 and 07/02/2008.
/14/ MEDA clearance for commissioning of 2 nos. of 1.25 MW in Maharashtra dated 30/09/2006 and 19/10/2006, NOC from TNEB dated 27/03/2007, Permission from GEDA dated 29/09/2007
/15/ MERC Order dated 24/11/2003
/16/ Evidences for the chronology of events
/17/ AMS I.D. version 13 and UNFCCC website (http://cdm.unfccc.int/index.html)

/18/ O&M contract for Tamilnadu sub bundle from RRB Energy Ltd dated 23/03/2009, O&M contract for Gujarat sub bundle from RRB Energy Ltd dated 26/09/2009, O&M contract for Maharashtra sub bundle from Suzlon Infrastructure Services Ltd dated 30/08/2008.

/19/ Report of PLF determination for project activity prepared by Mitcon Consultancy Services Ltd.

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A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document for **"5.50 MW Bundled Wind Power Project by WMI Cranes Ltd."**.

It serves as a "**reality check**" on the project that is completed by a local assessor from SGS India.

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
1. Host Country Approval letter	The HCA for the project activity has been submitted having reference no is 44/13/2008-CCC dated 17/10/2008	Document Review /2/	Appropriate and accepted
2. Purchase orders for the project activity.	The purchase orders of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated 04/06/2007 has been submitted.	Document Review /10/	Appropriate and accepted
3. Financial calculation sheets and evidence against the data and assumptions used.	The same is submitted and is acceptable.	Excel spreadsheet /4/	Appropriate and accepted
4. Evidence is required regarding serious CDM Consideration for the project activity.	The board note dated 26/05/2006 has been submitted by project participant.	Document Review /5/	Appropriate and accepted
5. Evidence for no use of ODA	The same is submitted by chartered accountant P. Sanghani & Co. dated 10/12/2008	Document Review /7/	Appropriate and accepted
6. Evidence is required to be submitted that the technology used would not be changed during the crediting period.	The same undertaking has been submitted	Document Review /9/	Appropriate and accepted

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Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
7. The media used to invite the local stakeholders	The invitation letter has submitted and found to be acceptable.	Document Review /10/	Appropriate and accepted
8. MoM of local stakeholder consultation is required. Discussion with the local stakeholders is required during the site visit	The MoM for stakeholder's consultation has been submitted; the same was checked and cross-checked during the site visit and is acceptable. There was no negative comment from local stakeholders.	Document Review /8/	Appropriate and accepted
9. Evidence for start date of the project activity.	The purchase orders of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006 has been submitted and acceptable.	Document Review /10/	Appropriate and accepted
10. It is required to be checked whether the project activity is a de-bundled components of not.	Checked during site visit and found that the project is not de-bundled component of large scale project activity.	Discussion with project participant	Appropriate and accepted
11. PPA for the project activity.	PPA for WEG of 2 nos. of 1.25 MW in Maharashtra dated 05/12/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 02/05/2008 and WEG of 3 nos. of 0.6 MW in Gujarat dated 05/12/2007 has submitted; the same was checked and is acceptable.	Document Review /12/	Appropriate and accepted
12. Delay to approach CDM funds needs to be discussed.	Chronology of events has been mentioned in PDD and all evidences are submitted and are acceptable.	Document Review, Discussion with project participant /16/	Appropriate and accepted
13. QA/QC procedures for data monitoring.	QA/QC procedure has been checked during site visit	site visit	Appropriate and accepted

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Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
14. Calibration certificates concerned with the project activity are required to be submitted.	The same is provided.	Document Review	Appropriate and accepted
15. Consents and approval for the project activity.	MEDA clearance for commissioning of 2 nos. of 1.25 MW in Maharashtra dated 30/09/2006 and 19/10/2006, NOC from TNEB dated 27/03/2007, Permission from GEDA dated 29/09/2007	Document Review /14/	Appropriate and accepted
16. Modalities of Communication for the project activity.	The same is submitted.	Document Review /3/	Appropriate and accepted

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A.2 Annex 2: Validation Checklist

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website)

Requirement	Reference	Comments	Conclusion/CARs/CLs
1. All Parties involved have approved the project activity 1.1. Has the DNA of each Party involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval which confirms 1.1.1. The country is a Party to the Kyoto Protocol 1.1.2. Participation is Voluntary 1.1.3. The Host Party confirming that the proposed CDM project activity contributes to sustainable development of the country Non-Annex 1 Party shall submit a letter of approval 1.1.4. It refers to the precise proposed CDM project activity title in the PDD being submitted for registration	Annex 3, Clean Development Mechanism, Validation and Verification Manual, Version 01 (from this point forwarded referenced as VVM) – 49a-d /54a-b/125 Paragraph 37 CDM Modalities and procedures Ref I.D /2/	India has ratified the Kyoto protocol on 26th August 2002 and is allowed to participate. Letter of Approval from Indian DNA is to be provided by the project proponent. No Annex – I party has been selected yet.	CAR 01 PP has submitted the LoA CAR 01 was closed.
1.2. The letter/s of approval are unconditional with respect to 1.1.1 to 1.1.4 above	VVM Para. 49/54 Ref I.D /2/	The LoA is unconditional with respect to the country is party to Kyoto protocol, voluntarily participation, sustainable development and consistent project title.	Y

Requirement	Reference	Comments	Conclusion/CARs/CLs
2. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for a minimum of 30 days, and the project design document and comments have been made publicly available	VVM Para. 128 Marrakech Accords, CDM Modalities, §40	Yes, the project was listed on UNFCCC website from 4th July 2008 to 2nd August 2008 which was linked to the UNFCCC website http://cdm.unfccc.int/Projects/Validation/DB/1HJEFKI6HVF7BQB5UCB6K5PN1R2ZJE/view.html Number of comments received during web-hosting period - 0	Y
3. The project design document is in accordance with the applicable CDM requirements for completing PDDs.	VVM Para. 57 Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	The PDD is as per the CDM-SSC-PDD version 3 format.	Y
4. The project participants shall submit a letter on the modalities of communication (MoC) before submitting a request for registration	EB-09 F_CDM_REG form Ref I.D /3/	The same needs to be submitted by Project proponent	Y MoC is submitted

Table 2PDD

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
A. General Description of Project Activity				
A.1. Project Title				
A.1.1. Does the used project title clearly enable the reader to identify the unique CDM activity?	VVM Para.56 Guidelines for completing a CDM-PDD (PDD) section A.1 Ref I.D /2/	DR	The title of the project activity mentioned is "5.50 MW Bundled Wind Power Project by WMI Cranes Ltd.". This is unique. The title of project activity will be further checked with the LoA from Host country.	CAR #1 Y The same is provided and checked CAR #1 Closed
A.1.2. Is there an indication of a revision number and the date of the revision?	VVM Para.56 PDD section A.1	DR	Yes; The PDD which was webhosted for International stakeholder consultation mentions version 01, dated 10/06/2008.	Y
A.2. Description of the Project Activity				
A.2.1. Does the description of the proposed CDM project activity as contained in the PDD sufficiently cover all relevant elements accurately?	VVM Para.59 PDD section A.2 see also A.4, A.4.3 and B.3 Ref I.D /10/	DR	Information regarding the purpose of the project activity, type of technology used and contribution to sustainable development has been described. The project description has been cross checked during the site visit.	Y PO is provided
A.2.2. Does the information provide the reader with a clear understanding of the proposed CDM	VVM Para.60 PDD section A.2 see also A.4, A.4.3	DR	The PDD provides clear information on the project activity.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
activity?	and B.3			
A.2.3. Is all information provided consistent and in compliance with the actual situation or planning?	VVM Para.64 PDD section A.2 see also A.4, A.4.2 and B.3 Ref I.D /13/	DR	The project activity entails installation of Wind Mills for power generation and supplying the same to the western regional grid (Now Integrated Northern, Eastern, Western and North Eastern grid), and Southern grid of India, the same would be checked during the site visit.	Y Commissioning Certificates provided
A.2.4. Is all information provided consistent with details provided in further chapters of the PDD?	VVM Para.64 PDD section A.2	DR	The project activity details as mentioned in the PDD are consistent.	Y
A.3. Project Participants				
A.3.1. Is the table required for the indication of project participants correctly applied?	VVM Para. 51 PDD section A.3	DR	The table is applied correctly.	Y
A.3.2. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	VVM Para. 51 PDD section A.3	DR	The project proponent for the project is consistent throughout the PDD.	Y
A.4. Technical Description of the Project Activity				
A.4.1. Does the information provided on the location of the project activity allow for a clear identification of the	VVM Para.64 PDD section A.4	DR	The project is located in three states in India, Dhule district in Maharashtra state, at Kutch/ Kachchh district in Gujarat state, and Tirunelveli district in Tamilnadu state. The latitude and longitude has been mentioned in PDD. Project location exceeding more than one page, please correct it.	CAR #2 Y The same is corrected

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
site(s)? Are the latitude and longitude of the site indicated (decimal points)				CAR #2 closed
A.4.2. Does the proposed CDM project activity involve the alteration of existing installations or process?	VVM Para.64 PDD section A.4 Ref I.D /10/	DR	The project activity is the green field project and there in no alteration of existing equipments The project activity involves electricity generation through wind mills. The technical specifications and purchase orders for equipments used in the project activity needs to be submitted by the project proponent.	CL #4 Y PO is provided CL #4 closed
A.4.3. Do the project participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?	VVM Para.64 PDD section A.4 Ref I.D /14/	DR	Applicable ownership documents or licenses which allow the implementation of the project activity at the project site need to be submitted by Project Participant.	CL #3 Approvals, Pos are submitted. CL #3 closed
A.4.4. Is the category(ies) of the project activity correctly identified?	VVM Para.64 PDD section A.4 Ref I.D /10/	DR	The PDD mentions that the project activity involves electricity generation by wind mills and supplying the same to the western regional grid, (Now Integrated Northern, Eastern, Western and North Eastern grid) and Southern grid, the same was cross-checked during the site visit.	Y PO is provided
A.4.5. Is all information provided in compliance with actual situation or planning as available by the project participants?	VVM Para.64 PDD section A.4	DR	The project activity is already commissioned.	Y
A.4.6. Is the table required for the indication of projected emission reductions correctly	VVM Para.64 PDD section A.4	DR	The table has been applied correctly.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
applied?				
A.5. Debundling				
A.5.1. Is the small-scale project activity a debundled component of a large scale project activity	VVM Para. 134c	DR	The PDD mentions that the project activity is not a de-bundled component. The same has been checked from UNFCCC site and discussion with project participant.	Y
A.5.2. If the project is a debundled component of a larger project, does the larger project fall within the limits for small-scale CDM project activities	VVM Para. 134c	DR	The project activity is not a de-bundled project activity as mentioned in the PDD	Y
A.6. Public Funding				
A.6.1. Does the information on public funding provided conform to the actual situation or planning as presented by the project participants?	PDD section A.4.4 Ref I.D /7/	DR	The PDD mentions that no ODA was used for the project activity. The loan documents are required to be submitted for the project activity. Also evidence is required that No ODA was used in the project activity.	Y Undertaking and Loan documents are submitted
A.6.2. Is all information provided consistent with details provided by further chapters of the PDD (in particular annex 2)?	PDD section A.4.4	DR	All information provided is consistent with annex 2 of PDD. The project activity has not involved the ODA for the project activity.	Y
A.6.3. In case of public funding from Annex I Parties is it confirmed	PDD section A.4.4	DR	No public funding from Annex 1 party is available for the project activity.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
that such funding does not result in a diversion of official development assistance				
B. Baseline and Monitoring Methodology				
B.1. Choice and Applicability				
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	VVM Para.68 PDD section B.1	DR	The methodology used is AMS I.D. version 13; the same is an approved methodology and is valid.	Y
B.1.2. Has the methodology (incl. the tools) been altered from the original version as referenced in the PDD?	VVM Para.69 PDD section B (B.1-B.2)	DR	The latest version of tool" Tool to calculate the emission factor for an electricity system ' has been used for emission factor calculation.	Y
B.1.3. Does the project activity qualify as small scale project?	VVM Para. 134a	DR	The project uses AMS I.D.; the total capacity of the project is 5.5 MW which is less than the specified limit of 15 MW. The same is checked by purchase orders and site visit observation.	Y
B.1.4. Is the category(ies) of the project activity correctly identified in accordance with Appendix B to the simplified modalities and procedures for small-scale CDM project activities?		DR	The project activity electricity generation by wind mills and supplying the same to western regional grid (Now Integrated Northern, Eastern, Western and North Eastern grid) and Southern grid. The methodology selected is AMS I.D. and the same is applicable.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.1.5. Is the selected simplified methodology applicable to the project activity in the PDD?	VVM Para.75/66a/68/73 PDD section B (B.1-B.2)	DR	The methodology is applicable for the project activity	Y
B.1.6. Does the project activity conform to one of the approved small-scale categories?	VVM Para. 134b	DR	The project activity conforms one of the small scale categories D	Y
B.1.7. Is the project activity a bundle of several small scale activities and if so does it contain any sub-bundles?		DR	The project activity is a bundled project activity as mentioned in the PDD	Y
B.1.8. If the project activity is a bundle of several small scale activities, does the sum of the total bundle (including any subbundles) fall within the limits for small scale projects		DR	The project activity is a bundled project activity and the total capacity fall within the limits for small scale projects as mentioned in the PDD	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.1.9. If the project activity is a bundle of several small scale activities, has the form with information related to the bundle been submitted and is it correctly used		DR	The project activity is a bundled project activity as mentioned in the PDD	Y
B.1.10. Is the discussion in the PDD in conformance with all applicability criteria of the applied methodology?	VVM Para.75/66b/68 PDD section B (B.1-B.2)	DR	The PDD is in conformance with the applicability of the methodology AMS I.D.	Y
B.2. Project Boundary				
B.2.1. Are all emission sources and gases related to the baseline scenario, project scenario and leakage clearly identified and described in a complete and transparent manner? Is there information on GHG emissions in proposed CDM project activity boundary as a result of the implementation of the proposed CDM project activity which are expected to	VVM Para.79/76 /67a PDD section B.3	DR	The methodology has not stated to mention the all emission sources and gases related to the project activity; however the PP has considered the all possible emission sources in the project boundary	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology.				
B.2.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with the tool to calculate emission factor of electricity system (wherever applicable) and the underlying methodology?	VVM Para.79 PDD section B.3	DR	The project activity generates electricity and supplies the same to the western regional grid (Now Integrated Northern, Eastern, Western and North Eastern grid) and Southern grid of India. The grid selected is as per the CEA and latest tool has been used for calculation of emission factor.	Y
B.2.3. Does the project boundary include the physical delineation of the proposed CDM project activity?	VVM Para.78/79 PDD section B.3 also see section A.4.2	DR	The project boundary includes physical definition of project activity	Y
B.2.4. Are the project's geographical boundaries and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	VVM Para.76/79 PDD section B.3 also see section A.4.2	DR	The project boundary has been described clearly.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.3. Identification of the Baseline Scenario				
B.3.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology and is the application of the methodology and the discussion and determination of the chosen baseline transparent?	VVM Para.67b.80/82/86 PDD Section B.4/B.5	DR	The baseline scenario is continuation of generation of electricity in the western regional grid (Now Integrated Northern, Eastern, Western and North Eastern grid) and Southern grid of India as per the current emission levels.	Y
B.3.2. Are all tools/procedures in the methodology correctly applied to identify the most reasonable baseline scenario? This includes all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	VVM Para.81/82/86a-d/83/84 PDD Section B.4/B.5	DR	The continuation of generation of electricity in the western regional grid is the most realistic scenario for the project activity	Y
B.3.3. Is the choice of the baseline compatible	VVM Para.86b-	DR	The selected baseline is appropriate with the available data.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
with the available data?	c/95 PDD Section B.4/B.5			
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	VVM Para.90 PDD Section B.4/B.5	DR	The baseline is the most conservative	Y
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	VVM Para.90/91 PDD Section B.4/B.5	DR	The continuation of generation of electricity in the western regional grid is the most realistic scenario for the project activity	Y
B.3.6. Is there a verifiable description of the baseline scenario? Does this include a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM Para.86e/85 PDD Section B.4/B.5	DR	The baseline scenario has been described appropriately.	Y
B.4. Additionality				
B.4.1. Does the PDD clearly demonstrate the additionality using the approach as specified in the methodology and	VVM Para.67d/95 PDD Section B.1/B.4/B.5	DR	The PDD has demonstrated the additionality as per annexure 34 of EB35.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
by following all the required steps?				
B.4.2. In case of using the additionality tool: Is the 'Additionality Tool' used in the PDD latest version? If an earlier version has been used, do the changes impact the discussion in the PDD? Are all steps followed in a transparent manner?	PDD Section B.1/B.4/B.5	DR	The PDD has not used the additionality tool and used the non binding best practice examples to demonstrate additionality for SSC project activities as per annexure 34 of EB35	Y
B.4.3. Has all information been backed up with references, sources and certification? Is the data presented credible and reliable with complete transparency to all available data and documentation?	VVM Para.93/91 PDD Section B	DR	The data submitted for the demonstration of additionality are reliable and transparent. The excel sheet for financial analysis has been clearly documented.	Y
B.4.4. Is the discussion on additionality and the evidence provided consistent with the starting date of the project? If the project activity start date is prior to the validation is it discussed how the CDM was	VVM Para.102b PDD Section B.5 Ref I.D /4/	DR	Supporting as mentioned in the PDD is required to be submitted. Kindly clarify how para 40, EB 40 has been considered while selecting the benchmark. It is not clear what is the major barrier faced by the project activity. Regulatory risk is not clear, kindly clarify Kindly provide the supporting for Prevailing practice.	CAR #6 Y Financial barrier is acceptable CAR #6 closed.

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
taken into account in the decision to go ahead with the project activity				
B.4.5. If an investment analysis has been used, has it been shown that the proposed project activity is economically or financially less attractive than at least one other alternative without the revenue from the sale of CERs?	VVM Para. 106, 107, 109 112a-c PDD Section B.5 Ref I.D /4/	DR	Project participant has calculated required rate of return based on the bond yield and risk premium as a benchmark. Please clarify the suitability of benchmark. However it is not clear whether project IRR or equity IRR is compared with the benchmark.	Pending CAR #6 Y Financial barrier is acceptable CAR #6 closed.
B.4.6. If a benchmark is used, is it ensured that it is selected in accordance with the requirements of the tool /methodology and it represents standard returns in the market (not linked to the subjective profitability expectation or risk profile of a particular project developer).	VVM Para. 110 PDD Section B.5	DR	Benchmark has been derived from – Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data as option III a of additionality tool.	Y
B.4.7. If a barrier analysis has been used, has it been shown that the	VVM Para. 114	DR	Project activity has mentioned the financial infeasibility of the project activity.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	115a-b/116 PDD Section B.5			
B.4.8. Is the discussion on additionality consistent with the identification of all plausible and credible baseline scenarios?	VVM Para. 105 PDD Section B.5	DR	The additionality has been described in consistent with credible baseline scenario. The IRR has been compared with the benchmark for the project activity.	Y
B.4.9. Do the identified baseline scenarios include technologies and practices that include outputs or services comparable with the proposed CDM project activity. Do they also abide by the same applicable laws and legislations?	VVM Para. 105 PDD Section A.4.2/B.5	DR	The as per the PDD, identified baseline scenarios include technologies and practices that include outputs or services comparable with the proposed CDM project activity.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.4.10. Has it been shown that the project is not common practice?	VVM Para. 119a/b PDD Section B.5	DR	As per methodology, it is not required to demonstrate the common practice barrier. The project activity is common in nature, however the proposed project activity is financial infeasible.	Y
B.4.11. What are they key distinctions between the project activity and any similar projects that are widely used as common practice?	VVM Para. 118, 119c/d PDD Section B.5	DR	As per methodology this is not required and financial infeasibility is the project specific barrier for the project activity.	Y
B.5. Application of the Simplified Methodology				
B.5.1. Has the simplified methodology been applied correctly for determining **baseline emissions**?	VVM Para. 91d PDD Section B (B.6.1 –B.71) Ref I.D /6/	DR	The Excel spreadsheet of the calculation of emission reductions need to be provided by the project proponent. Please clarify the values considered for losses for net electricity generation along with evidences.	CL #7 Y CL #7 closed. Revised Excel is submitted.
B.5.2. Has the simplified methodology been applied correctly for determining **project emissions**?	VVM Para. 90/91d PDD Section B (B.6.2-B.71)	DR	The Excel spreadsheet of the calculation of emission reductions need to be provided by the project proponent. No project emissions are involved in the project activity.	CL #7 Y CL #7 closed. Revised Excel is

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
				submitted
B.5.3. Has the simplified methodology been applied correctly for determining **leakage**?	VVM Para. 91d PDD Section B (B.6.2 –B.71)	DR	The Excel spreadsheet of the calculation of emission reductions need to be provided by the project proponent. However as per methodology leakage is not applicable for the project activity.	CL #7 Y CL #7 closed. Revised Excel is submitted
B.5.4. Where applicable, has the simplified methodology been applied correctly for the **direct calculation of emission reductions?**	VVM Para 88/91d PDD Section B (B.6.2 –B.71)	DR	The approved methodology been applied correctly for the direct calculation of emission reductions.	Y
B.5.5. Where there is an option between different equations or parameters, has the methodological choices for the project been explained, have they been properly justified and are they correct?	VVM Para.89/90/91 PDD Section B (B.6.2 –B.71)	DR	All the methodological choices have been explained. The weighted average emission factor has been used for the project activity.	Y
B.5.6. Are uncertainties in the	PDD Sections	DR	Uncertainties in the GHG emissions estimates properly are addressed in the	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
GHG emissions estimates properly addressed in the documentation?	B.5-C		documentation	
B.6. Ex-ante Data and Parameters Used				
B.6.1. Are the data provided in compliance with the methodology?	VVM Para. 91/67c PDD Section B.6.3B.6.4	DR	The excel sheet for calculation of emission reductions is required to be submitted along with evidences for the assumptions used.	Y CL #7 was closed.
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	VVM Para. 91a/b PDD Section B.6.3/B.6.4	DR	Evidences for calculation of baseline emissions is required to be submitted, Pending CL #7 Project participant need to use latest available version of CEA data for the emission factor	Y CL #7 was closed.
B.6.3. Is the vintage of the baseline data correct?	PDD Section B.6.3/B.6.4	DR	The baseline data is correct.	Y
B.6.4. Is all the data appropriate and correctly applied to the CDM project activity?	VVM Para. 91c PDD Section B.6.3/B.6.4	DR	Yes, PP has applied all the data appropriately and correctly to the CDM project activity	Y
B.6.5. Are data and parameters that are not being monitored and remained fixed throughout the crediting period appropriately assessed, correct, and will they result in conservative	VVM Para. 90 PDD Section B.6.3/B.6.4	DR	The data and parameters that are not being monitored and remained fixed throughout the crediting period appropriately has been assessed, which are found to be correct, and they result in conservative estimates	Y

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
estimates?				
B.7. Calculation of Emissions Reductions				
B.7.1. Has the simplified methodology been applied correctly for determining **emission reductions**?	VVM Para. 91d PDD Section A.4.3/B.6	DR	The methodology has applied correctly to determine emission reduction calculation.	Y
B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?	VVM Para. 91e PDD Section B.6	DR	The emission reduction calculations are completed in a complete and transparent manner	Y
B.7.3. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	PDD Section B.6	DR	The projection is based on same procedures as used for later monitoring.	Y
B.7.4. Is the calculation of the emission reduction correct?	VVM Para. 91e PDD Section B.6	DR	The calculation of the emission reduction is correct.	Y
B.8. Emission Reductions				
B.8.1. Is the form/table required for the indication of projected emission reductions correctly applied?	PDD Section A.4.3/ Section B.6	DR	The table has been applied correctly.	Y
B.8.2. Is the projection in line with the envisioned time	PDD Section A.4.3/	DR	The start date of the crediting period as mentioned in the PDD is appropriate.	Y

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
schedule for the project's implementation and the indicated crediting period?	Section B.6		The start date of crediting period assumed is not realistic, kindly clarify.	CAR #8 is closed. Date is appropriate.
B.9. Monitoring Methodology				
B.9.1. Does the monitoring methodology provide a consistent approach in the context of all parameters to be monitored and further information provided by the PDD? Are all parameters and data that are available at validation consistent with the simplified methodology. Has this data been interpreted and applied correctly?	VVM Para. 67e PDD Section B.7-B.8 see also Annex 4	DR	All parameters and data that are available at validation have been applied correctly. The weighted average emission factor for CEA is parameter used for emission factor calculation.	Y
B.9.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions?	PDD Sections B and C	DR	The monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions	Y

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.10. Data and Parameters Monitored				
B.10.1. Does the monitoring plan in the PDD comply with the simplified methodology? Provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	VVM Para. 91a/91d/121/79 PDD Section B.7-B.7.2	DR	The monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period	Y
B.10.2. Are the choices of project GHG indicators reasonable and in conformance with the requirements set by the simplified methodology applied?	PDD Section B.7-B.7.2/B.6.2	DR	The choices of project GHG indicators reasonable and in conformance with the requirements set by the approved methodology applied	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	PDD Section B.6.2-B.8	DR	The net electricity supplied and the amount imported from the grid can be measured accurately. The emission reduction directly depends on the same.	Y
B.10.4. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	PDD Section B.6.2-B.7.1	DR	The information given for each monitoring variable by the presented table is sufficient to ensure the verification of a proper implementation of the monitoring plan.	Y

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.10.5. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	PDD Section B.6.2-B.7.1	DR	The information given for each monitoring variable by the presented table is sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records.	Y
B.10.6. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	PDD Section B.5-B.7.2	DR	The monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy.	Y
B.10.7. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	PDD Section B.6.2-B.7.1	DR	The formula used for determining emission reduction is in line with methodology. The project emissions are negligible for the wind based renewable energy project.	Y
B.11. Quality Control (QC) and Quality Assurance (QA) Procedures				
B.11.1. Is the selection of data undergoing quality control and quality assurance procedures complete?	VVM Para. 121 Refer to all data within the PDD Inc. B.6.2-B.7.1	DR	The Quality control and Assurance procedures are required to be checked during the site visit. The ISO certificates of the EPC contractor are required to be submitted.	Y CL # 5 closed. Certificates are submitted.

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

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	Refer to all data within the PDD Inc. B.4/B.7.2/Annex 4	DR	The determination of uncertainty levels is done correctly for each ID in a correct and reliable manner.	Y
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	VVM Para 121	DR	The QA/QC procedures are mentioned in PDD section B.6.2 and B.7.1.	Y
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	VVM Para. 86d	DR	It is ensured that data will be bound to national reference standards	Y
B.11.5. Is it ensured that data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions?	VVM Para. 19	DR	Data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions. The invoices to electricity board give conservative value of electricity and do not overestimate the emission reductions.	Y
B.12. Operational and Management Structure				
B.12.1. Is the authority and responsibility of project management clearly described?	PDD Section B.8/Annex 1	DR, SV	Management structure for the project activity has been described in the PDD. ISO certificates and procedure has been checked during site visit.	Y
B.12.2. Is the authority and responsibility for registration, monitoring,	PDD Section B.8/Annex 1	DR, SV	The authority and responsibility for registration, monitoring, measurement and reporting has been described under the section B.7.2 of the PDD.	Y

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
measurement and reporting clearly described?			ISO certificates and procedure has been checked during site visit.	
B.12.3. Are procedures identified for training of monitoring personnel?	PDD Section B.8/Annex 1	DR, SV	Training requirements have not been discussed in the PDD. ISO certificates and procedure has been checked during site visit.	Y
B.13. Monitoring Plan (Annex 4)				
B.13.1. Is the monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity?	VVM Para. 122a	DR, SV	The monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity.	Y
B.13.2. Does the monitoring plan completely describe all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	VVM Para. 122b	DR, SV	The monitoring plan completely describes all measures to be implemented for monitoring all parameter required.	Y
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	VVM Para. 122b	DR, SV	The monitoring plan described the positioning of the equipments.	Y
B.13.4. Are procedures identified for calibration	VVM Para. 122a-c	DR, SV	The meters are calibrated by state electricity board	Y

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
of monitoring equipment?				
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	VVM Para. 122a-c	DR, SV	The maintenance procedures have been described in section B 7.2.	Y
B.13.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	VVM Para. 122a-c	DR, SV	The day to day record handling procedure has been described in section B.7.2.	Y
B.13.7. Are procedures identified for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems?	VVM Para. 122a-c	DR, SV	O&M team will ensure joint monthly reading with state authorities..	Y
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	VVM Para.122a-c	DR, SV	Analysis of daily power generation reports, performance report and monthly reading will be reviewed by the PP on regular basis.	Y
B.13.9. Are procedures	VVM Para.	DR,	Yes, analysis of daily power generation reports, performance report and monthly	Y

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
identified for project performance reviews before data is submitted for verification, internally or externally?	122a-c	SV	reading will be reviewed by the PP on regular basis. The operational and Management Structure has been provided.	
B.13.10. Describe the ability of the project participants to implement the monitoring plan.	VVM Para. 122c	DR, SV	The monitoring plan reflects that PP got the ability to implement the monitoring plan.	Y
B.14. Baseline Details				
B.14.1. Is there any indication of a date when determining the baseline?	PDD Section B.8/Annex 3	DR	The baseline has been determined on 10/06/2008, as mentioned in the PDD.	Y
B.14.2. Is this consistent with the time line of the PDD history?	Also see revision history of the PDD	DR	The start date of the project activity is 26/07/2006 this is in time line with the project activity. The baseline and PDD has been determined on 01/07/2008. The dates are consistent with the time line.	Y
B.14.3. Is all data required provided in a complete manner by annex 3 of the PDD?	PDD Annex 3	DR	The data required for the baseline has been provided in the annex 3 of PDD.	Y
C. **Duration of the Project / Crediting Period**				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	VVM Para. 102a-c PDD Section C.1.1/C.1.2 Ref I.D /10/	DR	The start date of the project activity is 07/06/2006 and the operation lifetime is 20 years as described in the PDD. Evidence is required for the start date of the project activity.	Y Evidence submitted CL # 9 closed.

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	VVM Para. 102a PDD Section C.2/C.2.1/C.2.2	DR	The crediting period chosen is fixed crediting period.	Y
C.1.3. Does the project's operational lifetime exceed the crediting period	VVM Para. 102a PDD Section C.1.2/C.2.1.1/C.2.1.2	DR	The operational lifetime of the project activity exceeds the crediting period.	Y
C.1.4. Does the start date indicate whether this is a new project activity or a pre-existing project activity?	VVM Para. 102a/ 98 PDD Section C.1.1/C.2.1.1	DR	The project start date indicates that the proposed CDM project is a green field project. The project activity is pre existing project activity as the PPD is published for global stakeholder consultation before 2nd August 2008	Y
D. Environmental Impacts				
D.1.1. Does the project comply with environmental legislation in the host country?	VVM Para. 131/134d PDD section D Ref I.D /14/	DR	The necessary clearances required for proposed project activity (like NOC, Electrical inspectorate certificate if applicable), analysis of environmental impact need to submit by project proponent. The same needs to be checked during the site visit.	Y Approvals are submitted.
D.1.2. Has an analysis of the environmental impacts of the project activity	VVM Para. 131	DR	The analysis of environmental impacts has been sufficiently described in the PDD.	Y

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
been sufficiently described?	PDD section D			
D.1.3. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	VVM Para. 131 PDD section D	DR, SV	Environmental Impact Assessment is not required as mentioned in the PDD, the same needs to be checked during the site visit. Evidence for the same is checked. As per the schedule 1 of Ministry of Environment and Forest notification dated September 14, 2006, http://envfor.nic.in/legis/eia/so1533.pdf , 39 activities are required to undertake environment impact assessment studies but this project doesn't falls under the specified categories. Thus project activity does not require Environment Impact Assessment	Y The same is checked.
D.1.4. Will the project create any adverse environmental effects?	VVM Para. 131 PDD section D	DR	The project will not create any adverse environmental effects rather it will avoid the emission of carbon dioxide and also produces none of the other pollutant associated with fossil fuel.	Y
D.1.5. Are trans-boundary environmental impacts considered in the analysis?	VVM Para. 131 PDD section D	DR	The trans boundary environmental impacts are considered in the analysis.	Y
D.1.6. Have identified environmental impacts been addressed in the project design?	VVM Para. 131 PDD section D	DR	Identified environmental impacts have been addressed in the project design	Y
E. Stakeholder Comments				
E.1.1. Have relevant stakeholders been consulted?	VVM Para. 128a PDD Section E.1	DR, SV	The PDD mentions the stakeholders as the local communities, farmers and villagers. The same has been consulted during stakeholders meeting The PDD mentions that stakeholder consultation was carried out; the MoM has been checked for the same.	Y The same is checked.
E.1.2. Have appropriate media been used to invite	VVM Para. 128a	DR	The media used to communicate to the stakeholders has been in form of letters as described in the PDD.	Y CL #10

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Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
comments by local stakeholders?	PDD Section E.1		Copy of the letters is required to be submitted.	closed. The same is submitted.
E.1.3. Is the undertaken stakeholder process described in a complete and transparent manner?	VVM Para. 128b PDD Section E.1	DR	Stakeholder consultation is not required by host country regulation; however the project proponent has carried the same as a part of CDM requirements. MoM for the stakeholder consultation carried out is required to be submitted.	Y CL #10 closed. The same is submitted
E.1.4. Is a summary of the stakeholder comments received provided?	VVM Para. 128b PDD Section E.2	DR	The MoM has been checked for the project activity and checked for any comments from local stakeholders.	Y The MoM was checked.
E.1.5. Has due account been taken of any stakeholder comments received?	VVM Para. 128b PDD Section E.3	DR	There were no negative comments received from local stakeholders for the project activity. The MoM has been checked for the same.	Y The MoM was checked.

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References

Reference ID	Title / Description	Comments
/1.a/	PDD version 1 dated 01/07/2008 (submitted for international stakeholder's comments)	Table 2 section A, B, C, D and E
/1.b/	PDD version 2 dated 11/11/2008	Checked for findings
/1.c/	PDD version 3 dated 29/11/2008	Checked for findings
/1.d/	PDD version 4 dated 31/03/2009	Checked for CDM guidelines
/1.e/	PDD version 5 dated 02/07/2009	Checked for CDM guidelines
/1.f/	PDD version 6 dated 10/10/2009	Checked for CDM guidelines
/1.g/	PDD version 7 dated 20/11/2009	Checked for CDM guidelines
/1.h/	PDD version 8 dated 13/02/2010	Checked for CDM guidelines
/1.i/	PDD version 9 dated 04/06/2010 (Public and confidential) (Final)	Checked for CDM guidelines and final submission
/2/	Host Country Approval, reference number 4/13/2008-CCC dated 17/10/2008	Checked for project title and project participant name
/3/	Modalities of communication	Checked for contact information
/4/	IRR calculation sheet for the project	Checked for financial calculation
/5/	Board note dated 26/05/2006 as CDM consideration proof	Checked for CDM consideration
/6/	Emission reduction calculation sheet	Checked for emission reductions value
/7/	Certificate for no use of ODA for project activity by chartered accountant P. Sanghani & Co. dated 10/12/2008	Checked for ODA use in project activity
/8/	MoM for stakeholder consultation process carried on 21/11/2007 in Maharashtra, 28/04/2008 in Gujarat, 06/02/2008 in Tamilnadu	Checked for mode of invitation, any comments
/9/	Letter of undertaking for no change in technology	Checked for no change in technology
/10/	Purchase orders of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated	Checked for earliest real action i.e start date of project activity

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Reference ID	Title / Description	Comments
	04/06/2007	
/11/	QA/QC procedure of the supplier	Checked for QA/QC procedure
/12/	PPA for WEG of 2 nos. of 1.25 MW in Maharashtra dated 05/12/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 02/05/2008 and WEG of 3 nos. of 0.6 MW in Gujarat dated 05/12/2007	Checked for tariff and terms and conditions
/13/	Commissioning certificates for WEG of 2 nos. of 1.25 MW in Maharashtra commissioned on 30/09/2006 and 30/11 2006, Commissioning certificates for WEG of 2 nos. of 0.6 MW in Tamilnadu commissioned on 29/03/2007 and Commissioning certificates for WEG of 3 nos. of 0.6 MW in Gujarat commissioned on 03/10/2007, 28/12/2007 and 07/02/2008.	Checked for project schedule
/14/	MEDA clearance for commissioning of 2 nos. of 1.25 MW in Maharashtra dated 30/09/2006 and 19/10/2006, NOC from TNEB dated 27/03/2007, Permission from GEDA dated 29/09/2007	Checked for clearances
/15/	MERC Order dated 24/11/2003	Checked for PLF and other sources mentioned in PDD
/16/	Evidences for the chronology of events	Checked for delay of project activity to submit it for validation.
/17/	AMS I.D. version 13 and UNFCCC website (http://cdm.unfccc.int/index.html)	Table 2 section B, Table 1, Table 2 section B
/18/	O&M contract for Tamilnadu sub bundle from RRB Energy Ltd dated 23/03/2009, O&M contract for Gujarat sub bundle from RRB Energy Ltd dated 26/09/2009, O&M contract for Maharashtra sub bundle from Suzlon Infrastructure Services Ltd dated 30/08/2008.	Checked for O&M contract values for project activity.
/19/	Report of PLF determination for project activity prepared by Mitcon Consultancy Services Ltd.	Checked for PLF as per Annex 11 EB48

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A.3 Annex 3: Overview of Findings

Findings Overview

Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	4	6	-

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni		
Type:	CAR	Number:	1	Reference:	1.3	
Lead Assessor Comment:				**Date:** 12/09/2008		
The project proponent needs to submit the Host Country Approval for the project activity.						
Project Participant Response:				**Date:** 11/11/2008		
Enclosed						
Documentation Provided by Project Participant:						
Host Country Approval by Ministry of Environment & Forest (MoEF), Government of India, Letter No. 4/13/2008-CCC dated 17/10/2008						
Information Verified by Lead Assessor:						
The name of project participant and project title has been checked from HCA letter from host country DNA.						
Reasoning for not Acceptance or Acceptance and Close Out:						
Project participant has submitted the Host Country Approval from Designated National Authority, MoEF for the proposed project activity. The reference number for the same is 4/13/2008-CCC dated 17/10/2008. The name of the project activity and name of project participant mentioned in HCA is the same as in the section A.1 of the revised PDD. Thus CAR #1 was closed out.						
Acceptance and Close out by Lead Assessor:				**Date:** 25/11/2008		

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni		
Type:	CAR	Number:	2	Reference:	A.4.1	
Lead Assessor Comment:				**Date:** 12/09/2008		
It is found that section A.4.1.4 of PDD version 01 has exceeding more than one page. Please clarify it						
Project Participant Response:				**Date:** 11/11/2008		
The project activity is spread in three different states. The Map of all the three districts has been given in the PDD that has led to section A.4.1.4 exceeding one page.						
Documentation Provided by Project Participant:						
Revised PDD version 02						
Information Verified by Lead Assessor:						
Project location information has been checked in the Revised PDD version 02						
Reasoning for not Acceptance or Acceptance and Close Out:						
As per guidelines of CDM-SSC-PDD, the project location information should not exceed more than one page; please correct it. CAR #2 is open						
Project Participant Response:				**Date:** 10/12/2008		
This has been addressed in the revised PDD.						
Documentation Provided by Project Participant:						
Revised PDD version 03 dated 29/11/2008						
Information Verified by Lead Assessor:						
Project location information has been checked in the Revised PDD version 03						
Reasoning for not Acceptance or Acceptance and Close Out:						

The same is corrected by project participant and project location information is not exceeding more than one page and is accepted. CAR #2 was closed out.
Acceptance and Close out by Lead Assessor: **Date:** 15/12/2008

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni	
Type:	CL	Number:	3	Reference:	A.4.2
Lead Assessor Comment:				**Date:** 12/09/2008	
Applicable ownership documents or licenses which allow the implementation of the project activity at the project site need to be submitted by Project Participant.					
Project Participant Response:				**Date:** 11/11/2008	
Documents enclosed.					
Documentation Provided by Project Participant:					
PO of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated 04/06/2007. Commissioning certificates for WEG of 2 nos. of 1.25 MW in Maharashtra commissioned on 30/09/2006 and 30/11 2006, Commissioning certificates for WEG of 2 nos. of 0.6 MW in Tamilnadu commissioned on 29/03/2007 and Commissioning certificates for WEG of 3 nos. of 0.6 MW in Gujarat commissioned on 03/10/2007 and 07/02/2008. PPA for WEG of 2 nos. of 1.25 MW in Maharashtra dated 05/12/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 02/05/2008 and WEG of 3 nos. of 0.6 MW in Gujarat dated 05/12/2007. MEDA clearance for commissioning of 2 nos. of 1.25 MW in Maharashtra dated 30/09/2006 and 19/10/2006, NOC from TNEB dated 27/03/2007, Permission from GEDA dated 29/09/2007.					
Information Verified by Lead Assessor:					
Purchase orders, commissioning certificates, Power purchase agreement for the project activity, statutory clearances have been checked for the ownership documents.					
Reasoning for not Acceptance or Acceptance and Close Out:					
Project participant has submitted the purchase orders for the wind mills, commissioning certificates, power purchase agreement, clearances from state government involved in project activity. However the project participant has not submitted the land documents for the project activity, please submit it. CL #3 is open.					
Project Participant Response:				**Date:** 10/12/2008	
Documents enclosed.					
Documentation Provided by Project Participant:					
Land document for Maharashtra WEGs dated 25/08/2006,26/09/2006, for Tamilnadu WEGs dated 02/03/2007, for Gujarat 26/12/2007,27/09/2007,12/12/2007,20/09/2007,01/09/2007					
Information Verified by Lead Assessor:					
The land document has been checked for ownership of project activity.					
Reasoning for not Acceptance or Acceptance and Close Out:					
The project participant has submitted the land documents for the project activity and is accepted Thus CL #3 was closed out.					
Acceptance and Close out by Lead Assessor:				**Date:** 25/11/2008	

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni	
Type:	CL	Number:	4	Reference:	A.4.4
Lead Assessor Comment:				**Date:** 12/09/2008	
The technical specifications and Purchase orders for all equipments used in the project activity needs to be submitted by the project proponent.					
Project Participant Response:				**Date:** 11/11/2008	
Documents enclosed.					
Documentation Provided by Project Participant:					
PO of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated 04/06/2007.					
Information Verified by Lead Assessor:					
Purchase orders and technical specifications have been checked for the wind mills involved in project activity.					

Reasoning for not Acceptance or Acceptance and Close Out:	
Project participant has submitted the purchase orders of WEG of 2 nos. of 1.25 MW in Maharashtra dated 26/07/2006, WEG of 2 nos. of 0.6 MW in Tamilnadu dated 01/02/2007 and WEG of 3 nos. of 0.6 MW in Gujarat dated 04/06/2007. The technical specification has been checked for the wind mills involved in project activity and is acceptable. Thus CL #4 was closed.	
Acceptance and Close out by Lead Assessor:	**Date:** 25/11/2008

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni		
Type:	CL	Number:	5		Reference:	A.4.8
Lead Assessor Comment:					**Date:** 12/09/2008	
Project participant need to submit evidence for the QA/QC procedure, calibration certificates for instruments. It is found that one feeder consist of many wind mills and one feeder is having one main meter and one check meter.Net energy supplied is calculated from monitoring of main meter and deducting losses from individual wind mill proportionately. Project participant has not mentioned the procedure for calculation of net energy supplied by individual wind mill connected to common feeder. The monitoring procedure for each sub bundle need to be described separately. Project participant need to include all parameters used to calculate net energy supplied by project activity in monitoring section						
Project Participant Response:					**Date:** 11/11/2008	
Calibration certificate enclosed. The above mentioned concerns have been addressed in the Section B.7.2 and section B.7.1 of the PDD.						
Documentation Provided by Project Participant:						
Revised PDD version 02						
Information Verified by Lead Assessor:						
Monitoring plan has been checked in revised PDD version 02						
Reasoning for not Acceptance or Acceptance and Close Out:						
Project participant has incorporated the proportioning procedure for the calculation of net electricity supplied to grid and submitted the calibration certificates for the energy meters. Project participant need to check the description of measurement method and procedures to be applied in section B.7.1 of PDD. It is not clear why electricity generation from wind turbines of the project participant not included in section B.7.1 of PDD. Please check the source of emission factor of grid. CL #5 is open						
Project Participant Response:					**Date:** 10/12/2008	
This has been addressed in the revised version of PDD.						
Documentation Provided by Project Participant:						
Revised PDD version 03						
Information Verified by Lead Assessor:						
Monitoring plan and monitoring procedure has been checked in revised PDD version 03						
Reasoning for not Acceptance or Acceptance and Close Out:						
Monitoring plan and monitoring procedure has been checked in revised PDD version 03 and electricity generation from wind turbines of the project participant are included in section B.7.1 of PDD. The source of emission factor is mentioned as latest version of CEA and is accepted. The weightage average emission factor has been considered for the emission reduction calculation and is a monitored parameter. Thus CL #5 was closed out						
Acceptance and Close out by Lead Assessor:					**Date:** 15/12/2008	

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni		
Type:	CAR	Number:	6		Reference:	B.4.1
Lead Assessor Comment:					**Date:** 12/09/2008	

Project proponent need to submit additionality arguments with appropriate evidences in reference of starting date of the project activity. Risk premium for power sector and Govt. Security Bond returns were considered to arrive benchmark IRR for the project activity. However it is not clear why risk premium of power sector is considered for market risk premium. The market risk premium considered should represent the risk premium for the same type of projects in short market. Risk premium should be project specific or company (project proponent specific) if PP has any earlier investment in the similar type of projects. Pls. refer guidance on investment analysis for more details in this case. Please clarify how the selected values for market risk premium and security bond rate are specific for project activity. The evidence for market risk premium is a report for discussion purpose only and dated 13/04/2000. How such old reference can be considered on 2006 at conceptualization of project activity and considering market situation at that time. Evidence for the each value used in financial calculation and basis for calculation. Please clarify how regulatory & technical barriers, barriers due to prevailing practices and other barriers are specific to project activity. Evidence for CDM consideration and justification for time gap between start of project activity and validation is needed. Chronology of events needs to be submitted by project participant.
Project Participant Response: **Date:** 11/11/2008
Evidences for additionality arguments have been included by way of web links, foot notes and comments in the PDD as well as in financial excel sheets. As a conservative approach the benchmark was considered on the basis of CRISIL Report. The another approach for benchmark calculation has now been used as per the additionality tool version 5.2 and calculation of Benchmark has been inserted in the Financial Calculations File, same has been included in the section B.5 of the PDD. References for the value used in financial calculation has been given in the financial excel sheet. The major barrier faced by the project activity is investment barrier; this has been demonstrated by using benchmark analysis as per the additionality tool version 5.2. Apart from this, regulatory, technical barrier, barriers due to prevailing practices and other barriers are demonstrated by the PP, these barriers are not specific to the project activity, but they have profound impact on the perception about wind power projects and hence have been included. Web links have been given for the barriers. As per the EB 41 annexure 46 CDM considerations along with chronology of events has now been demonstrated in the Section B.5 of the PDD. Evidence for CDM consideration and justification for time gap is enclosed.
Documentation Provided by Project Participant:
Revised PDD version 02, Excel spreadsheet for financial calculation
Information Verified by Lead Assessor:
The benchmark calculation and source of values of financial calculation has been checked.
Reasoning for not Acceptance or Acceptance and Close Out:
Project participant has calculated required rate of return based on the bond yield and risk premium as a benchmark. Please clarify the suitability of benchmark. However it is not clear whether project IRR or equity IRR is compared with the benchmark. Project participant need to submit the evidences for the machine availability, grid availability and losses considered in the financial calculation. Project participant need to provide the break up of investment in financial calculation. Please clarify why the saleable units has been changed after 13th year and it is not clear what is tariff considered after 13th year. It is clear that the prevailing practice barrier and other barriers are not specific, and hence these are not convincing barrier. CAR #6 is open
Project Participant Response: **Date:** 10/12/2008

Justification for the suitability of Benchmark and suitability of the chosen financial indicator i.e. equity IRR has been added in the section B.5 of the PDD. The total losses has been considered as 5% which includes grid and machine non availability, transmission losses as per the MERC order and purchase orders and this is more conservative. Break up of project cost has been inserted in the financial excel sheet. In case of Maharashtra, the tariff is considered as Rs. 3.50 from the 1st year with an escalation Rs. 0.15/ year up-to 13th year. The tariff after 13th year is taken as Rs. 3.50 per kWh constant for the remaining years as tariff after 13th year is neither mentioned in the Power Purchase Agreement nor in MERC tariff order. So the PP has taken the tariff of Rs. 3.50 per kWh. This is taken as there is no clarity that what will happen after 13th year and there may be a chance that tariff will go down as low as of base year i.e. Rs. 3.50. All other barriers have been removed as these are not project specific barriers.
Documentation Provided by Project Participant:
Revised PDD version 03, Excel spreadsheet for financial calculation
Information Verified by Lead Assessor:
The financial indicator, cost break up, tariff after 13th year and source of values of financial calculation has been checked.
Reasoning for not Acceptance or Acceptance and Close Out:
Project participant has considered equity IRR as the financial indicator and project participant has considered PLF as per tariff orders of state electricity regulatory commission order and is accepted. PP has done financial calculations separately for each sub bundle and is accepted. The cost break up has been mentioned in financial calculation and the sources for the values have been checked. The project participant has considered the Rs. 3.50 per kWh constant for the remaining years as after 13th year tariff was uncertain and is conservative as per the MERC order. The extracts of MERC order indicate that the tariff rate will reduce after 13th year and the due to this uncertainty the considered tariff rate are acceptable The project activity has selected the benchmark due to market risk premium and compared with equity IRR of project activity. The sources of each value has been checked and found to be appropriate. The prevailing practise barrier and other barriers have been removed by project participant and is accepted. CAR #6 was closed out
Acceptance and Close out by Lead Assessor: **Date:** 15/12/2008

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni	
Type:	CL	Number:	7	Reference:	B.5.1
Lead Assessor Comment:				**Date:** 12/09/2008	
The Excel spreadsheet of the calculation of emission reductions need to be provided by the project proponent with evidences for each value used in calculation. The source for each value used for the calculation need to be provided. Please clarify the values considered for losses for net electricity generation along with evidences and please explain how these values are conservative					
Project Participant Response:				**Date:** 11/11/2008	
Enclosed. The value of PLF after considering the losses is much higher than the PLF of the wind power projects mentioned in the Tariff orders of the respective states. So, the PLF considered for CER calculation and for investment analysis is conservative.					
Documentation Provided by Project Participant:					
Excel spreadsheet for emission reduction calculation					
Information Verified by Lead Assessor:					
The sources for the values used in emission reduction calculation have been checked.					
Reasoning for not Acceptance or Acceptance and Close Out:					
The PLF considered for the project activity is taken from the tariff orders of state electricity regulatory commission and is accepted. The project participant has not used the latest available version of CEA data available at the time of PDD submission for validation for the emission factor and it is not clear about the sources for the grid and machine availability. CL #7 is open					
Project Participant Response:				**Date:** 10/12/2008	

This has been addressed in the revised version of the emission reduction excel sheet.
Documentation Provided by Project Participant:
Revised PDD version 03, excel spreadsheet for emission reduction calculation
Information Verified by Lead Assessor:
The sources for the values used in emission reduction calculation have been checked as per latest version of CEA.
Reasoning for not Acceptance or Acceptance and Close Out:
The project participant has used the latest available version of CEA data, version 03 available at the time of PDD submission for validation for the emission factor and considered PLF from tariff orders from state electricity regulatory commission in financial calculation. Thus this is conservative and accepted. The webhosted PDD has considered the losses due to grid and machine availability in the calculations of the emission reductions; however the revised PDD has removed these losses and considered PLF stated by MERC order 2003. This is accepted as considering the losses due to grid and machine availability reduces the revenue from the project activity and thus reducing the returns from project activity. Thus to have conservative approach for IRR estimation the elimination of these losses was accepted. The revised estimation of emission reductions has been checked and is accepted. Hence there is slight difference (@ 2%) in estimated amount of emission reductions in the PDD submitted with request for registration when compared to PDD uploaded for international stakeholder consultation. Project participant has considered the weighted average emission factor as an ex post and will be taken from the latest available version of CEA CO2 baseline database and is accepted. Thus CL #7 was closed out
Acceptance and Close out by Lead Assessor: **Date:** 15/12/2008

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni	
Type:	CAR	Number:	8	Reference:	B.10.1
Lead Assessor Comment:				**Date:** 12/09/2008	
Project participant need to mention realistic start date of crediting period					
Project Participant Response:				**Date:** 11/11/2008	
This has been addressed in the revised PDD. The DOE is requested to refer to Section C.2.2.1					
Documentation Provided by Project Participant:					
Revised PDD, version 02 dated 11/11/2008					
Information Verified by Lead Assessor:					
The section C.2.2.1 has been checked for start date of crediting period					
Reasoning for not Acceptance or Acceptance and Close Out:					
Project participant has mentioned the start date of crediting period is appropriate at present and is accepted. Thus CL #8 was closed out.					
Acceptance and Close out by Lead Assessor:				**Date:** 25/11/2008	

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni	
Type:	CL	Number:	9	Reference:	C.1.1
Lead Assessor Comment:				**Date:** 12/09/2008	
The project participant need to submit the evidence for start date of project activity					
Project Participant Response:				**Date:** 11/11/2008	
Starting date of the project activity has been considered as the release of first purchase order for the WEGs as this is the earliest date on which the project activity began. Documents Enclosed.					
Documentation Provided by Project Participant:					
Purchase order of WEG of 2 nos. of 1.25 MW capacity installed in Maharashtra dated 26/07/2006					
Information Verified by Lead Assessor:					
Date of purchase order has been checked					
Reasoning for not Acceptance or Acceptance and Close Out:					
Project participant has submitted the purchase order of WEG of 2 nos. of 1.25 MW capacity dated 26/07/2006. This date is in line with the definition of start date as per glossary of terms. Thus CL #9 was closed out.					
Acceptance and Close out by Lead Assessor:				**Date:** 25/11/2008	

Date:	12/09/2008		Raised by:	Ramkrishna Patil / Ravi Kant Soni	
Type:	CL	Number:	10	Reference:	E.1.2
Lead Assessor Comment:				**Date:** 12/09/2008	
The project participant needs to submit the evidence for MoM and media of stakeholder's invitation for project activity.					
Project Participant Response:				**Date:** 11/11/2008	
Enclosed					
Documentation Provided by Project Participant:					
Invitation letter, Minutes of meeting and attendance sheet for stakeholders meeting held on 21/11/2007 in Maharashtra. Invitation letter, Minutes of meeting and attendance sheet for stakeholders meeting held on 06/02/2008 in Tamilnadu. Invitation letter, Minutes of meeting and attendance sheet for stakeholders meeting held on 28/04/2008 in Gujarat					
Information Verified by Lead Assessor:					
The mode of invitation, Minutes of meeting and attendance sheet has been checked for the stakeholders meeting. The comments have been checked if any.					
Reasoning for not Acceptance or Acceptance and Close Out:					
Project participant has submitted the Invitation letter, Minutes of meeting and attendance sheet for stakeholders meeting held on 21/11/2007 in Maharashtra, Invitation letter, Minutes of meeting and attendance sheet for stakeholders meeting held on 06/02/2008 in Tamilnadu, Invitation letter, Minutes of meeting and attendance sheet for stakeholders meeting held on 28/04/2008 in Gujarat. There were no negative comments for the project activity. It is acceptable. Thus CL #10 was closed out.					
Acceptance and Close out by Lead Assessor:				**Date:** 25/11/2008	

A.4 Annex 4: Team Members Statements of Competency

Statement of Competence

Name: Patil, Ramkrishna SGS Affiliate: SGS India

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)
Sub scope(s):

2. Energy Distribution **x**
Sub scope(s): Energy Distribution

3. Energy Demand
Sub scope(s):

4. Manufacturing
Sub scope(s):

5. Chemical Industry
Sub scope(s):

6. Construction
Sub scope(s):

7. Transport
Sub scope(s):

8. Mining/Mineral Production
Sub scope(s):

9. Metal Production
Sub scope(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)
Sub scope(s):

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride
Sub scope(s):

12. Solvent Use
Sub scope(s):

13. Waste Handling and Disposal
Sub scope(s):

14. Afforestation and Reforestation
Sub scope(s):

15. Agriculture
Sub scope(s):

Approved Member of Staff by: Siddharth Yadav Date: 28/10/2009

Statement of Competence

Name: Soni, Ravikant SGS Affiliate: SGS India

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)
Sub scope(s):

2. Energy Distribution **x**
Sub scope(s): Energy Distribution

3. Energy Demand
Sub scope(s):

4. Manufacturing
Sub scope(s):

5. Chemical Industry
Sub scope(s):

6. Construction
Sub scope(s):

7. Transport
Sub scope(s):

8. Mining/Mineral Production
Sub scope(s):

9. Metal Production
Sub scope(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)
Sub scope(s):

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride
Sub scope(s):

12. Solvent Use
Sub scope(s):

13. Waste Handling and Disposal
Sub scope(s):

14. Afforestation and Reforestation
Sub scope(s):

15. Agriculture
Sub scope(s):

Approved Member of Staff by: Siddharth Yadav Date: 28/10/2009

Statement of Competence

Name: Mahawar, Abhishek SGS Affiliate: SGS India

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)
Sub scope(s):

2. Energy Distribution
Sub scope(s):

3. Energy Demand
Sub scope(s):

4. Manufacturing
Sub scope(s):

5. Chemical Industry
Sub scope(s):

6. Construction
Sub scope(s):

7. Transport
Sub scope(s):

8. Mining/Mineral Production
Sub scope(s):

9. Metal Production
Sub scope(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)
Sub scope(s):

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride
Sub scope(s):

12. Solvent Use
Sub scope(s):

13. Waste Handling and Disposal
Sub scope(s):

14. Afforestation and Reforestation
Sub scope(s):

15. Agriculture
Sub scope(s):

Approved Member of Staff by: Siddharth Yadav Date: 12/11/2009

Statement of Competence

Name: Kumar, Sanjeev. SGS Affiliate: SGS India

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	**x**
Sub scope(s): Hydro, Wind, Combined heat and Power & Waste Heat, Biomass Electricity Utilization	
2. Energy Distribution	**x**
Sub scope(s): Energy Distribution	
3. Energy Demand	**x**
Sub scope(s): Energy Efficiency in Thermal Application systems and Energy Efficiency in Electrical Application systems	
4. Manufacturing	
Sub scope(s):	
5. Chemical Industry	
Sub scope(s):	
6. Construction	
Sub scope(s):	
7. Transport	
Sub scope(s):	
8. Mining/Mineral Production	
Sub scope(s):	
9. Metal Production	
Sub scope(s):	
10. Fugitive Emissions from Fuels (solid, oil and gas)	
Sub scope(s):	
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	
Sub scope(s):	
12. Solvent Use	
Sub scope(s):	
13. Waste Handling and Disposal	
Sub scope(s):	
14. Afforestation and Reforestation	
Sub scope(s):	
15. Agriculture	
Sub scope(s):	

Approved Member of Staff by: Siddharth Yadav Date: 16/12/2009