VALIDATION REPORT

Enercon (India) Ltd.

ENERCON WIND FARM (HINDUSTAN) LTD IN RAJASTHAN

SGS Climate Change Programme
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Summary

SGS India Pvt. Ltd., an affiliate of SGS United Kingdom Ltd. has made a validation of the CDM project activity "Enercon Wind Farm (Hindustan) Ltd in Rajasthan" at wind generating sites in Kita and BHU village, in Jaisalmer District of Rajasthan state in India, on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria. The project falls under large scale category and scope 1. Energy Industries (Renewable/ Non-renewable sources).

The scope of validation is the independent and objective review of the project design document, baseline study and monitoring plan and other relevant document of the project. The information in this document is reviewed against the criteria defined in the Marrakech Accords (Decision 17) and the Kyoto Protocol (Article 12) and subsequent guidance from the CDM Executive Board.

The overall validation process, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (UK.PP.12 issue 3 dated 19/01/2007).

The first output of the validation process is a list of Corrective Actions Requests and New Information Requests (CARs and NIRs), presented in Annex 3 of this document. Taking into account this output, the project proponent revised its project design document.

In summary, it is SGS' opinion that the proposed CDM project activity correctly applies the baseline and monitoring methodology as mentioned in approved methodology adopted for the proposed project activity and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Subject.:		
CDM validation		**Indexing terms**
Work carried out by		
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Mr. Siddharth Yadav 15th March 2010		☐ Limited distribution
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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CERC	Central Electricity Regulatory Authority
CFE	Consent for Establishment
CFO	Consent for Operation
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
GHG	Green House Gas(es)
GWh	Giga watt hour
I	Interview
IPCC	Intergovernmental Panel on Climate Change
ISHC	International Stakeholder Consultation
kWh	Kilo watt hour
MNES	Ministry of Non Conventional Energy Sources
MoEF	Ministry of Environment and Forest
MoV	Means of Verification
MP	Monitoring Plan
MW	Mega watt
MT	Metric Tonne
NIR	New Information Request
NGO	Non Government Organisation
NOC	No Objection Certificate
PDD	Project Design Document
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention for Climate Change
WTG	Wind Turbine Generator

Table of content

1 Introduction

1.1 Objective

Enercon (India) Ltd. has commissioned SGS to perform the validation of the project: "Enercon Wind Farm (Hindustan) Ltd in Rajasthan" with regard to the relevant requirements for 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.

1.2 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.

1.3 GHG Project Description

The proposed CDM project activity is an electricity generation project through wind turbines and exporting the same to the grid by the client. The project will result in replacing exported amount of electricity from Northern regional grid which is dominated by fossil fuel based power plants. The project activity is located in Kita and BHU village, in Jaisalmer District of Rajasthan state in India. The project activity start on 10th March 2006, the date has been verified from the purchase order for wind generators submitted to the validator. The Project activity involves operation of 75 wind energy converters (WECs) of Enercon make; specifications of the same have been provided in the PDD and same has been cross-checked with the purchase orders.

Baseline Scenario:

Under the baseline scenario, there would have been more direct off-site emissions through burning of fossil fuel in the coal based power plant for meeting electrical energy requirements.

With Project Scenario:

The project activity will generate and export the electricity to the Northern regional grid. Thus project activity replaces electrical energy from fossil fuel based power plants and contributes to conservation of fossil fuel, a non-renewable natural resource and consequently reduces GHG emissions.

Leakage:

As per the methodology ACM0002 Version 6.0 dated 19th May 2006; applicable for the project activity, no leakage is to be considered for the project activity.

Environmental & Social Impacts:

There are no negative environmental and social impacts expected with the project activity, the same has been cross-checked during local stakeholder consultation process by the local assessor during the validation site visit.

1.4 The names and roles of the validation team members

Name	***Supplier***	***Role***
Mr. Ramkrishna Patil	SGS India	Team Leader / Lead Auditor (from 01/09/2009)
Mr. Sanjeev Kumar	SGS India	Team Leader / Lead Auditor (till 31/08/2009)
Mr. Vikrant Badve	SGS India	Assessor (Trainee) (till 31/08/2009)
Mr. Nikunj Agarwal	SGS India	Local Assessor (till 31/08/2009)
Mr. Ramkrishna Patil	SGS India	Local Assessor (from 01/09/2009)
Mr. Abhishek Mahawar	SGS India	Financial Expert (from 01/03/2009)
Mr. Vikas Bankar	SGS India	Sectoral Scope Expert

Statement of Competency of the team members are attached at Annex IV

2 Methodology

2.1 Review of CDM-PDD and additional documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

A site visit is usually required to verify assumptions in the baseline. Additional information can be required to complete the validation, which may be obtained from public sources or through telephone and face-to-face interviews with key stakeholders (including the project developers and Government and NGO representatives in the host country). These may be undertaken by the local SGS affiliate. The results of this local assessment are summarized in Annex 1 to this report.

2.2 Use of the validation protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. 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.

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

Checklist Question	***Means of verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements are linked to checklist questions the project should meet.	*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). **New Information Request (NIR)** 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

2.3 Findings

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

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

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

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. There is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

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

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

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

2.4 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.

3 Determination Findings

3.1 Participation requirements

The host Party for this project is India; while United Kingdom of Great Britain and Northern Ireland is Annex 1 Party. . India has ratified the Kyoto protocol on 26th Aug 2002 and United Kingdom of Great Britain and Northern Ireland has ratified the Kyoto protocol on 31 May 2002. A Letter of Approval from host country DNA and Annex 1 country DNA was not submitted by the project proponent. CAR (1) was raised asking project proponent to submit the Letter of approval from Indian DNA and Annex 1 country DNA. The project proponent provided the letter dated 3rd April 2007; issued by the Indian DNA (reference number 4/21/2006-CCC) has been provided by the project proponent which was verified from the original copy and found accepted. The project proponent provided the letter dated 27th April 2007; issued by the DNA of the United Kingdom of Great Britain and Northern Ireland (reference number RI/2/2007). This was verified from the original copy and found accepted. Hence CAR (01) was closed out.

3.2 Baseline selection and additionality

The project has applied baseline as mentioned in the large scale methodology ACM0002 version 06 dated 19th May 2006 for "Consolidated baseline methodology for grid-connected electricity generation from renewable sources". The project activity generates electricity from wind and thus replaces electricity from fossil fuel based power plant, and contributes to conservation of fossil fuel, and fall under the category ACM0002.

The present CDM project activity will generate and feed the electricity to the Northern regional grid. The emission reductions achieved because of the project activity will be direct function of the net electricity feed to the grid and grid emission factor for the Northern regional grid.

The PDD version 1; web hosted for international stakeholder consultation proponent has used additionality tool version 2. During the validation process the additionality tool has been revised to version 3 and project proponent has used version 3 of the tool to assess the additionality of the project activity. This was checked with the PDD version 6 and found acceptable.

The project proponent has adopted the Investment analysis as main barrier to justify the additionality of the project. Also project proponent has described Common Practice Analysis. In order to get all the related documents on the basis of which the project was shown additional, CAR (05) was raised.

Project proponent has entered into a memorandum of understanding (MoU) with Japan Carbon Finance (JCF) Ltd.; a carbon credit buyer on 1st July 2005 prior to the start date of the project activity. This indicates that the project proponent has seriously considered CDM incentives prior to the project activity. On later date project proponent has terminated their contract with JCF and entered into a new contract with Rabobank UK on 13th Dec. 2006. A copy of MoU with JCF was submitted to the validator during the site visit and same was found acceptable for CDM consideration prior to project activity. Project proponent has also submitted a contract with Rabobank which was found acceptable after discussion with the project proponent.

Project proponent had initially considered the 16% post tax equity return benchmark that is used by various regulatory commissions for determining the tariff applicable for wind power projects. During the request for registration stage, the EB referred the project to "request for review" and sought clarifications from the parties involved in the project mainly related to suitability of the benchmark used by the project proponent. Subsequently, the Executive Board in 40th meeting ruled that the 16% post

tax return considered by regulatory commissions is not a suitable benchmark. Thus project proponent has to reconsider the benchmark for project activity as per EB mandate. The required return on equity i.e. Equity IRR can be considered as appropriate benchmark for the project activity this is inline with the requirements under Guidance to investment analysis issued in EB 41 (paragraph 11). The cost of equity has been determined using the Capital Asset Pricing Model (CAPM) considering Beta values of all listed power generating companies in India, and additionality has also been tested by the project proponent with the most conservative beta and cost of equity value used by comparable projects using this approach. The CAPM economic model is widely used to determine the required/expected return on equity based on potential risk of an investment. The CAPM framework is the Nobel award winning work of financial economist Dr. William Sharpe.

In line with the requirements of the Guidance to Investment Analysis (paragraph 12), data and parameters used in calculation of cost of equity i.e. beta values of power generating companies in India, risk free rate of return, market risk premium etc. have been derived from publicly available data sources. The beta values have been sourced from Bloomberg, data on risk free rate has been sourced from the Reserve Bank of India website www.rbi.org and the market returns data has been taken from the website of the Bombay Stock Exchange, www.bseindia.com. The detailed CAPM approach has been taken from the textbook on Corporate Finance Theory and Practice by Dr. Aswath Damodaran of New York University. The detailed calculations of cost of equity along with an elaboration of the approach are provided in Annex 5 of the PDD. The same was confirmed by SGS during the validation. Thus the benchmark cost of equity works out to 18.7%. The benchmark analysis was further checked by comparing with the other similar project activities registered from India which have a start date around that of the project activity start date. For justification of this the recently registered 14 wind projects (since October 2008 to March 2009) were checked for the benchmark selected and project start date; one (1) wind project (UN1602) was found to have the start date within 3 months from project activity start date and uses benchmark selection based on beta value. Project number 1602 considers an average beta value of 1.46 and after adjusting for 100% equity financing structure of the project uses a value of 0.84 for benchmark computation. As compared to the value of average beta considered by project 1602 (1.46), the beta of 1.34 considered by this project activity, which is 30% equity and 70% debt financed, is conservative. Other projects either have a different start date or use a different benchmark selection approach that is not based on Beta value. Further, the DOE has also verified that even if a benchmark of 16.08% (the lowest equity IRR benchmark value, considered by registered Indian wind projects with similar start date) is considered, the project remains additional.

The complete transparent procedures followed to validate the appropriateness of the investment benchmark (18.7%) for the project is described as below -

The parameters considered for benchmark calculation i.e. Risk free rate of return, Market Risk Premium and Beta value have been calculated in accordance with established principles of Corporate Finance. The Benchmark considered for the project is the Cost of Equity, which is in line with the para 12 of Guidance for Investment Analysis, version 03 (Annex 58 of EB51)The Benchmark considered for the project is the Cost of Equity, which is in line with the Guidance for Investment Analysis. The Capital Asset Pricing Model (CAPM) approach has been used to determine the Benchmark Cost of Equity. The CAPM approach is widely accepted and has been used by several other CDM registered CDM project activities in benchmark calculation.

The detailed CAPM approach has been taken from the “Textbook on Corporate Finance Theory and Practice” by Dr. Aswath Damodaran of New York University. The detailed calculations of cost of equity along with an elaboration on the approach have been checked from Annex 5 of the earlier submitted PDD. We now clarify the validation process followed for each of the parameters:

Risk Free Rate of 7.34%

- Interest on Government Securities is used as the risk free rate of return in CAPM. Since the project is based in India, interest rates offered by long term Securities issued by the Government of India have been considered. The DOE has verified that this is consistent with the CAPM approach. The DOE has also verified that the data on Government security interest rates has been sourced from the website of the Reserve Bank of India (http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/80303.pdf). Project activity start date is in March 2006 and the latest data available at this time was for the year 2005-06. Accordingly, the weighted average interest rate for the year 2005-06 i.e. **7.34%** was deemed as the appropriate risk free rate of return.

Market Risk Premium of 8.52%

- SGS has verified that the Market Risk Premium in CAPM is calculated as the difference between the Returns on a Market Index and the Risk Free rate of return over a reasonably long period of time. Considering a longer time period results in a more stable and representative market return. Accordingly, the market return has been calculated as the difference between the BSE Sensex (the oldest available market index in India) and the Risk free rate over a period of 26.9 years i.e. since the inception of BSE SENSEX.

- SGS has verified that the Market returns data has been taken from the website of the Bombay Stock Exchange, http:///http://www.bseindia.com/histdata/hindices.asp (Open webpage > select Index from drop down menu as “BSE SENSEX” > check ‘monthly’ > select period from drop down menu). The 26.9 years (from April 1979 to March 2006) BSE SENSEX data has been considered to compensate for short term fluctuations in the market. The average return from BSE SENSEX over 26.9 year period comes to **18.83%.**

- Similarly, the average annual return from Government Securities over a 26 year period comes to 10.31%. The market risk premium is calculated as difference of market return and average risk free return (18.83%-10.31%). Thus the value of market risk premium is **8.52%.** The same was confirmed by SGS during the validation and is accepted.

Beta of 1.34

- SGS has verified that the Beta values have been sourced from Bloomberg, which is one of most reputed financial databases in the world.
- Betas of all power generating companies that were listed at the time of investment decision making and had sufficient price history, were considered. SGS has verified the beta values; Bloomberg screenshots of Beta values have been checked. Appendix 3 of revised PDD containing beta values has been checked and is accepted. The average beta value comes to be 1.34 and is considered for calculation of benchmark.
- CAPM calculates the Cost of Equity and hence the Beta value used in the CAPM formula is the equity Beta. SGS has verified from Corporate Finance Text books that, other things being equal, an increase in financial leverage increases the equity Beta of a company. Fixed interest payments on debt result in high net income in good times and negative net income in bad times. This means that higher the financial leverage (Deb-Equity ratio), greater the variability in net income and risk.

The risk of investment is always borne by the equity investor and therefore in addition to reflecting the operating risk of the firm, the equity Beta must also reflect the financial risk component of the firm.

The equity Beta for applying in CAPM formula is written as:

$\beta_L = \beta_u + [1+ (1 – T) X (D/E)]$

Where: β_L - Levered Beta for equity
β_u – Un-levered Beta of comparable companies
T – Tax Rate
D/E – Debt – Equity Ratio

Appropriateness of Beta of 1.34

- Thus, the beta value needs to be adjusted to account for the particular financing mix employed (Debt-Equity) in the project. However since the Debt-Equity ratio of the project is higher than the Debt-Equity ratio of the power generating companies whose Betas were considered, adjusting the Betas would have resulted in a value that is higher than the observed Beta values. Hence considering the Observed Beta value without making any adjustments is conservative. The beta value of 1.34 was thus deemed appropriate.

- The Beta value of 1.34 was further checked for appropriateness by comparing with Beta values considered by other wind projects that were registered between October 2008 and March 2009 and had a start date similar to the project in context. Since from the empirical relationship (discussed above) it is clear that financial leverage (Debt-Equity ratio) has a significant influence on Beta, in order to ensure a like to like comparison, the effect of changes in Debt-Equity ratios were also considered.

- One project (PA 1602) was found to have a start date of within 3 months from the project activity start date. The benchmark parameters considered by this project was therefore reviewed in detail. The findings of review are presented below:

    - Risk Free rate of return approach considered by both the projects are similar, the value of risk free rate of return considered are also same - 7.34%
    - Market Risk Premium approach of PA 1168 is more conservative as compared to Market Risk Premium approach of PA 1602, since PA 1168 has calculated Market Risk Premium over substantially longer period. Market Risk Premium values: PA 1168 – 8.52%, PA 1602 – 11.82%
    - Beta considered by PA 1602 is 0.84 which is the un-levered beta (Beta assuming 100% equity). SGS found that PA 1602 is 100% equity financed hence un-levered beta is appropriate. In the context of PA 1168, since by definition CAPM uses Equity Beta, and the project has 70% debt financing, the Beta of PA 1602 was adjusted for the change in Debt-

Equity. The resultant Beta for PA 1602 thus works out to 2.15[1], this means that when Beta of PA 1602 is translated to PA 1168, it comes to 2.15. In comparison PA 1168 has considered a beta of 1.34.

- SGS also checked the un-adjusted Beta values i.e. observed beta values (from which the applicable betas are derived) considered by both the projects. The average Beta considered for PA 1602 is 1.46 which is higher than Beta considered for PA 1168 i.e. 1.34.
- In view of all the above, SGS validated that the Beta of 1.34 is appropriate.

- Beta is calculated as a regression of the returns from a particular stock with that from a market index. Stock prices change from time to time and therefore so do their beta values. Finance theory states that all other things being equal Beta of a company changes with change in its financial leverage. Therefore Betas from different time periods or Betas with different financial leverage cannot be compared with each other. In addition, Beta values are also influenced by the method of computation. Therefore SGS is of the opinion that unless critical factors such as time, leverage, computation method etc. that influence the Beta value are similar, it may not be possible to draw accurate comparisons between Beta values.

- Since the EB has sought clarifications on the Beta of 1.34 for PA 1168 being higher than Beta values of PA 1602, PA 1762 and PA 1166, SGS would like to present further clarifications in this regard.

  - Beta changes with financial leverage. Therefore all other things being equal, Beta of two projects can be compared only when the debt-equity ratio of the projects are similar. In other words, a levered beta should be compared to a levered beta and an un-levered beta should be compared to an un-levered beta.

  - PA 1602 is 100% equity financed and hence the appropriate Beta for PA 1602 is the un-levered beta. PA 1168 has 70% debt finance and after adjusting for the difference in financial leverage, the resultant Beta of PA 1602 works out to 2.15. As mentioned in the earlier sections, this means that the Beta of PA 1602 when translated to PA 1168 becomes 2.15. In comparison PA 1168 has considered a beta of 1.34.

  - PA 1762 did not use the CAPM but instead considered a 14% equity IRR benchmark based on CERC guidelines. In its response to EB's request for review the PP has reverse calculated Beta of 0.23 assuming Risk free rate of 7.34% and Market Risk Premium of 28.65%. It is to be noted that the Market risk premium has an equal influence on benchmark calculation as does the Beta. It is the product of Market Risk Premium and Beta (EMRP x Beta) that is considered for Benchmark calculation. Both PA1602 and PA1762 have considered market risk premiums that are significantly higher than market risk premium of PA1168.

    PA 1168 has considered a significantly lower market risk premium of 8.52%. SGS has noted that if the EMRP of 8.52% (same as PA 1168) is considered, and Beta for 1762 is

[1] Beta Levered for PA 1602 = Beta un-levered x [1 + D/E] x (1 – T)] = (0.84) x [1+ (70/30) x (1

reverse calculated from a 14% equity IRR benchmark, it would work out to 0.78[2] and not 0.23, as has been stated by PA 1762. This project is again a 100% equity financed project and therefore, in line with the procedure described in text books (refer discussion above), this beta must also be first adjusted for 70% debt financing. The adjusted Beta so calculated is 1.99, in comparison PA 1168 considers a Beta of 1.34.

- PA 1166 uses similar debt-equity mix as that of PA 1168 (70% debt + 30% equity) and is therefore directly comparable. It is observed that PA 1166 uses Beta of 1.32 which is close to the Beta of 1.34 considered by PA 1168.

- Another way of making a like to like comparison is to assume that PA 1168 has similar financing mix as that of PA 1602 and PA 1762 i.e. 100% equity financed. The table below summarizes the values of B, Benchmark and equity IRR in such a case.

Project ID	Beta	Benchmark Cost of Equity	Equity IRR
PA 1168	0.76	13.81%	9.8%
PA 1602	0.84	16.08%	10.02%
PA 1762	Not applicable	14%	11.11%

It is observed that under similar assumptions, the parameters for PA 1168 i.e. Beta, Benchmark and equity IRR are lower than those of PA 1602 and PA 1762.

SGS has verified that. as per Capital Asset Pricing Model (CAPM), the cost of equity is calculated in following manner:

Cost of equity = Risk free rate of return + Beta * Market Risk Premium
= 7.34+1.34*8.52
=18.7%

On the basis of the above, SGS concludes that the approach used for beta calculation and the benchmark determined for the project activity (18.7%) is appropriate.

In order to confirm the suitability of any benchmark applied in the investment analysis, it is established that:

(a) The selected benchmark (18.7%) is cost of equity and is suitable for comparison with equity IRR. This is in line with VVM paragraph 110 (a).

(b) As discussed above, the beta value is an appropriate value and reflects the risk specific to the project activity and is in line with VVM paragraph 110 (b).

– 33.66%) = 2.15

[2] Beta for PA 1762 = (14% - 7.34%) / 8.52% = 0.78

(c) In EB40 paragraph 40, 16% benchmark is classified as inappropriate in the context of such project activities, notwithstanding the investment decision towards the project activity was actually undertaken on 16% benchmark established by Central Electricity Regulatory Commission (Government of India) Order evident from the PDD and Validation report submitted during registration. In order to identify an eligible and appropriate benchmark, 18.7% was identified, as explained in the documentation submitted during request for review and also further explained above in response to issue 1, by project proponent and was found appropriate. However, it will not be reasonable to assume that no investment would have been made at a rate of return lower than the benchmark because PP took investment decision based on expected benchmark of 16% rather than 18.7%, which is clearly lower than the benchmark that would have been available at the time of decision making as well.

It is stressed further that the previous investment decisions by PP prior to project activity start date has been implemented taking into account the 16% benchmark and has been assessed from previously CDM registered projects (e.g. UN#1259) and found valid. There has not been any change observed in the investment decision basis towards consideration of the benchmark (16%) and it is only in order to justify the availability of the new benchmark (in line to Additionality tool) at the time of investment decision 18.7% is presented by PP and found appropriate.

Therefore, in the opinion of SGS, the identified benchmark, 18.7% which is appropriate, justified and available to PP at the time of investment decision was actually not applied and an erstwhile benchmark 16%, which is lower and conservative than revised benchmark is considered suitable for the project activity in line to VVM para 110(c).

The funds for the project activity are made available 30% from equity and 70% through bank finance, as is typical for such projects in India. The total project cost is Rs. 2,845 Millions the bank has sanctioned a loan of Rs. 1,992 Millions at a starting interest rate of 8.5%; while Rs. 854 Millions were raised through equity by the project proponent. This information was cross checked from during the discussion with the project proponent and also verified from the bank loan documents submitted by the project proponent. Project proponent has submitted excel spreadsheet giving the detailed calculations for investment analysis and also submitted assumptions and data used to calculate the post tax equity IRR for project activity. Project proponent has calculated post tax equity IRR for the present project activity considering the CDM revenue and without CDM revenue. The post tax equity IRR without CDM revenue works out to 11.9% and with CDM revenue it was14.6 %. The project proponent is implementing the project due to CDM revenue as with CDM revenue post tax equity IRR is improving to 14.6% . Initially the benchmark considered for the project activity investment was 16.0% equity IRR which was referred from the CERC order and same was checked and found acceptable but with the recent CDM EB mandate regarding not accepting this value as benchmark PP has calculated the cost of equity for the project investment. Thus benchmark considered for this project activity was post-tax equity IRR.

The financial analysis sheet given by the project proponent along with assumptions and data used while calculating the financial indicator was discussed with project proponent during validation activity. The project proponent has carried out a sensitivity analysis with PLF as varying factor. PLF of 22% was considered as base case PLF and sensitivity analysis was carried out with lowest of 20% and highest of 23.97% PLF as per RERC order (with in -10% and +10% variation of the parameter with respect to its base value). The sensitivity analysis indicates that post tax equity IRR without CDM results in the downside PLF value will be 9.0% and in the upside PLF value it will be 14.8%; while post tax equity IRR with CDM funds results in the downside value will be 11.3% and in the upside PLF value it will be 17.9%. Thus the post tax equity IRR for the project activity will be less than the benchmark IRR value. This indicates that the project is additional and not a business as usual. The financial figures given in the PDD are checked with excel spreadsheet figures and found correct. The financial analysis was checked during the validation phase and found acceptable.

The DOE has noted that the equity IRR in this case with the higher PLF value in sensitivity analysis is 14.8%, i.e. still below the benchmark. Hence the project can be considered as additional.

The Project proponent also submitted the commissioning certificate and PPA signed by RRPVN as a proof that RRPVN allows the operation of the project activity and commissioning of the project activity was done as per their procedures.

In support of common practice analysis the project proponent mentioned that they analyze the extent to which wind energy projects have diffused in the electricity sector in Rajasthan. In 2005 – 06, electricity generation from wind sources was 417 GWh which is expected to increase to 512 GWh in 2006 – 07. This works out to 1.35% of total generation available to the state of Rajasthan in 2005 – 06 and 1.66% of total expected generation available to the state of Rajasthan in 2006 – 07. Clearly, electricity generation from wind is not a common practice in Rajasthan. The same has been verified by the RAJASTHAN ELECTERICITY REGULATORY COMMISSION (RERC) Report.

Currently, there are 134.71 MW of wind projects in Rajasthan (at various stages) that are in the CDM pipeline out of 279 MW and more projects are expected to come into the CDM pipeline.

With the revision of Policy 2004 (effective February 2006), the capacity additions during the three years are expected to be around 297 MW:
2005–06: 74 MW
2006-07: 36 MW
2007-08: 187 MW
The same has been verified by the RAJASTHAN ELECTERICITY REGULATORY COMMISSION (RERC) Report

Out of the 297 MW that is estimated to be installed up to 2008, this Project constitutes 60 MW. Enercon is further developing a 100 MW wind power project and another 24.8 MW as CDM project activities under the 2004 policy (amended).

Clearly, wind power project development in Rajasthan is insignificant when compared to the power sector of Rajasthan. Further, wind power project development is substantially dependent on CDM mechanism and thus is not common practice. The same was acceptable to the DOE and hence CAR (05) was closed out.

3.3 Application of Baseline methodology and calculation of emission factors

The present project activity is generating wind power and supplying it to Northern grid. The project has applied baseline methodology as mentioned in the large scale methodology ACM0002 version 06 dated 19th May 2006 for “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”

Project proponent has not provided excel spreadsheet for calculation of baseline emission as well as project emissions for the project activity along with the PDD. CAR (04) was raised and project proponent was asked to provide the excel spreadsheet for the same. During validation site visit project proponent submitted concern excel spreadsheets. By checking the excel spreadsheets it was found that grid emission factor calculated for the project activity was on higher side when compared with the CEA database version 1.1 dated 21st December 2006 for grid emission factor; which uses a conservative approach. Project proponent was asked to clarify this. In response to CAR (04) Project proponent agreed that CEA value for grid emission factor is calculated on a conservative approach and same will be used for the project activity and this value of grid emission factor will be fixed for the entire crediting period. Local assessor has cross-checked the grid emission factor value used by the

project proponent from CEA website and checked the data used for calculation purpose. The data used is found acceptable and hence CAR (04) was closed

The baseline emission calculations and emission reductions were found to be in order during the desk review and during the local assessments at the site. The emission reduction figures would further be checked during verification. As per methodology ACM0002 version 06 dated 19th May 2006, no leakage is to be considered.

3.4 Application of Monitoring methodology and Monitoring Plan

The present CDM project activity uses monitoring methodology ACM0002 version 06 dated 19th May for "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"

The PDD clearly mentions that leakage is not considered as per the methodology ACM0002 version 06 dated 19th May 2006, hence no leakage is considered for the project activity. This was acceptable to the validator.

During review of version 1 of the PDD it was found that project proponent was not clear on QA/QC procedure as required in the monitoring methodology. Also the responsibility flow chart given in PDD section B.7.2 was not correct; So CAR (07) was raised. The project proponents in his response to CAR (07) explained the QA/QC procedure more clearly in the revised PDD and provide the responsibility flow chart more elaborately in the revised PDD version 02. Hence CAR (07) was closed out.

NIR (08) was raised as the Project Management planning was not described in the PDD version01; the project management planning such as responsibility of project management, authority and responsibility for registration, monitoring, measurement and reporting, procedures identified for training of monitoring personnel, emergency preparedness for cases where emergencies can cause unintended emissions, calibration of monitoring equipment, maintenance of monitoring equipment and installations, day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation), dealing with possible monitoring data adjustments and uncertainties are incorporated in the revised PDD, so the NIR (08) was closed out.

CAR (14) was raised as there was no information regarding training and maintenance efforts for the project activity in the PDD, in response of the CAR the project proponent then added the information about training and maintenance in the revised PDD, which was verified during site visit, hence the CAR (14) was closed out.

3.5 Project design

The Project Design Document (PDD) was designed as per version 03.1 of guidelines laid for preparing PDD of large scale CDM project activity hence the format of the present PDD was checked against it.

It was found that section C.1.1 of version 01 of the PDD indicated 10th March 2006 as project activity starting date; but evidence for the same was not provided. CAR (15) was raised asking project proponent to provide an evidence for the starting date of the project activity. In response project proponent provide the purchase order for the wind energy generators dated 10th March 2006. The same was cross checked during site visit and the date 10th March 2006 was accepted hence CAR (15) was closed out.

The project boundary given in version 01 of the PDD was not clear on the components included in the project boundary so CAR (03) was raised; the project proponent rephrased the project boundary in the revised version of the PDD. This was cross-checked during site visit and found acceptable, so CAR (03) was closed out.

Operational lifetime of the project activity was mentioned as 20 years which was found acceptable after reviewing the project technology details mentioned in the purchase order of the project activity component. CAR (13) was raised asking project proponent to provide any documentary evidence that the present project technology will not be substituted or replaced by the more efficient technologies during the crediting period. Project proponent has assured that project technology will not be substituted or replaced by more efficient technology during the crediting period and the letter of undertaking for the same has also been obtained from the project proponent. This was accepted and CAR (13) was closed out.

Project proponent in the PDD mentioned that project activity has not received any public funding from parties listed in Annex 1. This was cross-checked during the discussion with the project proponent and found acceptable.

3.6 Environmental Impacts

In state of Rajasthan RRPVN is authorized government agency to keep an eye on wind mill projects hence CAR (05) was raised to check whether the project commissioning has been done as per RRPVN requirement or not. In response project proponent provide commissioning certificate and PPA signed by RRPVN as a proof that RRPVN allows the operation of the project activity and commissioning is done as per their procedures. Hence CAR (05) was closed out.

EIA report was not submitted to the DOE, so NIR (09) was raised, the project proponent submitted the EIA and the same were checked for Environmental Impacts on various parameters like Air quality, Water, Land, Noise generation and ecology as mentioned in table under section D.1 of the PDD. This NIR can be closed out.

3.7 Local stakeholder comments

The project activity involves setting up of 60 MW wind energy based power project for electricity generation and exporting the same to Northern regional grid, the project proponent identified local administrative body, local population as local stakeholders for the project activity. CAR (10) was raised asking project proponent to clarify which government departments they have considered as a local stakeholder for the project activity as version 01 of the PDD remains silent on this issue. In their response to CAR (10) project proponent clarifies that RRPVN and local village panchayat are the concern government departments project proponent has considered; this was verified during local stakeholder consultation during site visit and accepted, hence CAR (10) was closed out.

Project proponent in version 01 of the PDD mentions that comments from local stakeholders have been invited through advertisements in news paper. CAR (11) was raised and project proponent was asked to provide a copy of advertisement in news paper for seeking the comments. Project proponent in response to CAR (11) provided copy of the news paper in local language (same translated in English to the validator) and the same was verified by crosschecking with original news paper. Thus CAR (11) was closed out.

The summary of local stakeholders' comments was not provided in version 01 of the PDD so the NIR (12) was raised for the same. The project proponent then incorporates the summary in the revised PDD which was cross-checked during the local stakeholder consultation process during site visit. It was found during site visit that the summary provided in the PDD is correct and hence was acceptable to the validator. It was also found that no public complain was registered with the concern government department and no negative comment has been received on the project activity. So NIR (12) was closed out.

4 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.

4.1 Description of how and when the PDD was made publicly available

The PDD and the monitoring plan for this project were made available on the SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=167 from 21st November 2006 to 20th December 2006 and Comments were invited through the UNFCCC CDM homepage.

4.2 Compilation of all comments received

The project was up loaded for International stakeholder consultation (ISHC) for a period of 30 days and received one comment.

Comment number	***Date received***	***Submitter***	***Comment***
1	30/11/06	Name: Peter Smith City: London Country: United kingdom Organisation: P.S.Associates	1.1. The project has only Enercon machines. How can the additionality be justified? How can it be proved that Enercon actually needed CDM to make the turbines viable? Enercon as a manufacturer sets up the machines for sale later or for its own use. But there is no additionality that can be established. The complete analysis is erroneous. 1.2. The IRR has to crossover 16% to make the CDM revenues necessary for the project to reach the benchmark. This is not the case in the calculations shown in the PDD. DOE to clarify. 1.3. The CER rate that has been considered has not been mentioned 1.4. EIAs for different sites are different as they are based on site specific characteristics. How can the same information be provided for all the three Enercon PDDs that have posted on the web together in November 2006. .

4.3 Explanation of how comments have been taken into account

Date: 30/11/06 Raised by: Peter Smith

Comment	Issue	Ref
1.1	The project has only Enercon machines. How can the additionality be justified? How can it be proved that Enercon actually needed CDM to make the turbines viable? Enercon as a manufacturer sets up the machines for sale later or for its own use. But there is no additionality that can be established. The complete analysis is erroneous.	3.2

Date: 18th April 2007

[Response from project developer]

(i) First and most important issue need to be understood here is that in India the wind turbine manufacturers also carry out the role of a wind farm developer. Thus the role of Enercon is not restricted to manufacturing as understood by the Stake holder. Enercon as a developer develops wind power projects which are developed on Built and Transfer basis. Thus the identification and development of the Project is first done by Enercon as the developer considering all the financial aspects and other risks before the investors come into the project investment. The Tool for determination of additionality used provide for a 4-step process. Enercon understands that this query relates to the Step 2 Investment Analysis part of the Tools for determination of additionality. In evaluating the additionality using Investment Analysis, the assumptions relating to policy/regulatory regime, costs, wind profiles, etc. are taken from authentic sources and each of these assumptions have a basis (through publicly available information in the form of various orders of regulatory commissions and through documentation available with Enercon).

(ii) The CDM project is developing and setting of wind farms (as explained in paragraph one above), which, being renewable energy source, lead to emission reductions. The CDM project does not cover the wind turbine/equipment manufacturing facility of Enercon.

(iii) It is important to explain the process of wind farm project development in India in general and in the context of development of wind farm in the State of Rajasthan for instance. The process of development of wind power projects in India is very different from setting up conventional or other non-conventional power projects. Enercon as a Developer of wind farms first obtains the rights to develop wind power projects under the prevailing policies of Government of Rajasthan. The rights to develop wind power projects included project approval, acquiring lease hold / free hold project land, obtaining evacuation approval from the state electricity utility and constructing the evacuation facility, approvals, etc. Enercon as a Developer then proceeds with site development activities including survey and selection of potential sites, site analysis, micro-siting, wind measurement, etc. Having identified the project site, Enercon gains the possession of the land on a 30-year lease from the state government or the nodal agency or purchase free hold land by paying consideration at market rate and proceeds to develop the potential sites including surface preparation, approach roads, setting up of buildings including control rooms/office rooms, etc.

Enercon decided to proceed with the investments in wind farm of setting up utility sized wind power project.

While only Step 2 Investment Analysis is used to demonstrate additionality because it clearly shows that the projects are additional, there are a number of barriers to investment that Enercon faces in development of the wind farms which have not been detailed in the PDD. These barriers have been foreseen by Enercon at the time of development of the wind farm project as a Developer. Enercon has considered the CDM benefits in order to mitigate the impact of these barriers as it developed these wind farm projects. These include:

a) There are frequent changes to the Government policy on wind power projects which, inter alia, reduce tariffs payable to wind farms, levy additional charges for development, transmission and evacuation facilities and set limits to the amount of capacity beyond which the state utility (RVPN) can refuse to contract for purchase of power. These have resulted in delays and extra investments from Enercon.

b) With respect to the economics of wind power project, the tariff for the wind power is based on single part tariff structure, without any deemed generation benefits. The investors will not be entitled to get any revenue in case of any transmission constraints or backing down by State Transmission Company even if the wind project is fully available to generate.

This is unlike other utility scale fossil fired or hydro power projects where two part tariff structure is available which mitigates the investment risks from dispatch (actual generation), i.e., if the power projects are available for dispatch but are not dispatched due to transmission constraints or backing down by the state utility, they are entitled to fixed charges recovery for being available for generation. Further, the wind pattern in Rajasthan is such that the maximum generation is achieved during the nights, when the load on the state power system is very low. The transmission constraints and/or backing down at the time of maximum generation during off peak hours mean a considerable loss of the revenue.

c) The barrier due to low penetration of wind projects brings forth other developmental risks. At the time of project development, wind data availability was for 25 meters hub height which much less than the hub height of the turbine. The wind pattern of Rajasthan is unpredictable, which is proved so in the last two years of operation of the project. The capacity utilisation factors in Hindustan wind farm projects have been significantly less than the estimated capacity utilisation in the past due to reduction in wind speed coupled with transmission constraints and backing down by the state utility.

Date: 20/04/2007[Nikunj Agarwal]
The present project activity uses tool of additionality version 3 and under this project proponent has provided all the necessary information like Investment analysis, sensitivity analysis for the project activity and it has been shown that the CDM funds were improving IRR of the project activity and benchmark value was just crossing with the help of CDM funds. Thus CDM funds will really make project happening.

Also the explanation given by the project proponent regarding Enercon's role in developing this project as a CDM project was satisfactory and in India there is no policy or regulation that can restrict Enercon or any other wind turbine manufacturer from developing the wind parks and making aware their clients regarding the green energy and CDM funds.

Evidence has been provided by the project proponent regarding barriers mentioned and same were found correct when information given in PDD cross-checked for the information then contain. The DOE has done a desk review and after that DOE come to a conclusion that the project is an additional project to the baseline and it is not a baseline scenario.
The comment raised can be closed.

[Acceptance and close out] OK, Closed Out.[Sanjeev Kumar]

Date: 30/11/06 Raised by: Peter Smith

Comment	Issue	Ref
1.2	The IRR has to crossover 16% to make the CDM revenues necessary for the project to reach the benchmark. This is not the case in the calculations shown in the PDD. DOE to clarify.	3.2

Date: 18th April 2007
[Response from project developer]

This comment is addressed to DOE. However, Enercon would like to clarify while it is desirable from project proponent's point of view that CDM revenues assist in crossing the threshold, the requirement is to establish in a transparent manner that the project activity without CDM revenues were not sufficient to cross the established threshold/benchmark and expected CDM revenues would "significantly" assist in improving the project returns. In other words, CDM should be one of the "significant" parameters in making an investment decision and not the "sole" parameter in making the investment decision.

Date: 20 April 2007[Nikunj Agarwal]
It was checked from the financial analysis that the CDM funds were really helping the project activity and with out CDM funds it would not be possible for project to make happen. The comment raised can be closed.
[Acceptance and close out] OK, Closed Out[Sanjeev Kumar]

Date: 30/11/06 Raised by: Peter Smith

Comment	Issue	Ref
1.3	The CER rate that has been considered has not been mentioned.	3.2
Date: 18th April 2007 [Response from project developer] The rate used for the purpose of analysis is an illustrative rate of $10 per CER.		
Date: 20th April 2007 [Nikunj Agarwal] OK; the comment raised can be closed. [Acceptance and close out] OK, closed out.[Sanjeev Kumar]		

Date: 30/11/06 Raised by: Peter Smith

Comment	Issue	Ref
1.4	EIAs for different sites are different as they are based on site specific characteristics. How can the same information be provided for all the three Enercon PDDs that have posted on the web together in November 2006	3.2
Date: 18th April 2007 [Response from project developer] Enercon has conducted location-specific EIAs for each of its projects and the copy of the EIA reports are made available to the validator. The project is located in different villages but they all fall in the same District and the EIA covers the entire District. As the EIA in question covers all the sites (villages) located in Jaisalmer district is therefore applicable for Enercon wind farm Hindustan pvt. Limited in Rajasthan		
Date: 20th April 2007 [Nikunj Agarwal] EIA was conducted location-wise for each project site separately and all the three locations/sites are in Jaisalmer district. The separate copy of EIA for each site has been submitted to the DOE and same has been checked for the impact assessment part and it has found satisfactory. The comment raised can be closed. [Acceptance and close out] OK, closed out.[Sanjeev Kumar]		

5 Validation opinion

SGS has performed a validation of the project: “Enercon Wind Farm (Hindustan) Ltd in Rajasthan”. The Validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.
Using a risk based approach, the review of the project design documentation and the subsequent follow-up interviews have provided SGS with sufficient evidence to determine the fulfilment of the stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project will hence be recommended by SGS for registration with the UNFCCC.

By installing wind power plant the project activity will lead to displacement of carbon-intensive electricity by the electricity from a renewable source and thus the project results in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the investment analysis, common practice analysis, associated with project activity demonstrates that the proposed project activity was not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. The project is already commissioned and is exporting the electricity to northern grid.

The validation is based on the information made available to SGS and the engagement conditions detailed in the report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence SGS can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 15th March 2010

6 List of persons interviewed

Date	*Name*	*Position*	*Short description of subject discussed*
19/12/2006	Mr. Neeraj Gupta	CDM Cell Project Proponent	About the description of the project, additionality
19/12/2006	Mr. Dilip Sharma	Project Engineer Project Proponent	About the technology of the project activity and operation and monitoring.
20/12/2006	Mr. Rahim Singh	Local Resident	Local Stake Holder Consultation
20/12/2006	Mr. Punam Singh	Local Resident	Local Stake Holder Consultation

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/ PDD version 1 dated 15th November 2006

/2/ PDD version 2 dated 12th February 2007

/3/ PDD version 3 dated 30th March 2007

/4/ PDD version 4 dated 20th April 2007

/5/ PDD version 5 dated 5th October 2007

/6/ PDD version 6 dated 5th January 2009

/6.1/ PDD version 7 dated 16th February 2010 (Final)

/7/ Calculation spread sheet for IRR and Emission Reduction.

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):

/1/ Purchase Order for present project activity

/2/ A copy of PPA & commissioning certificates between Project Proponent and RRPVN

/3/ Training Certificates

/4/ Letter regarding no-use of ODA

/5/ Local Stakeholders Comments

/6/ Assumptions and Data used for IRR calculation

/7/ Bank Loan documents

/8/ Initial and Final contracts with the Carbon Credit Buyers

/9/ CERC order

/10/ Revised letter on modalities of communication dated 4th May 2009

Annex 1: Local Assessment

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. To get copy Host Country Approval (HCA) letter from Project Proponent.	PDD	DR	The host country letter has not been submitted by the project proponent.	Pending	Y
2. No ODA has been used for this project and to be confirmed during site visit.	PDD Annex 2	DR/I	Project proponent has submitted letter of undertaking regarding no use of ODA funds for the project.	Y	Y
3. Invitation for LSC meeting was sent to participate and communicate suggestions regarding the project activity. Documents are required to verify the same.	PDD	DR/I	The comments from the Local stakeholders were invited through the advertisement given in the local news paper. A copy of the same was submitted by the project proponent to the validator. The same was obtained to verify the transparency in consultation process. The document was verified during local stakeholder consultation.	Y	Y
4. Local stakeholders' comments are required to be verified for any adverse comment. Due account of stakeholder comments received required to be verified..	PDD	DR/SV	There were no adverse comments found in the MoM of the local stakeholders submitted by project proponent and the same was cross checked during site visit during local stakeholder consultation process.	Y	Y
5. Project design engineering documents from the technology supplier are required to be checked. Copy of offer made/ specifications given by technology supplier.	PDD	DR	Purchase specifications for Project activity were obtained and verified for the project capacity.	Y	Y
6. EIA report for the project activity.	PDD	Web site	EIA report for the project activity was submitted by the project proponent and the same was checked and verified for the impact of the project activity on	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			the land, water, air etc. during the site visit. This was found acceptable.		
7. The monitoring plan required to be checked.	PDD	DR/ SV	The monitoring plan for the project activity was checked during site visit and found satisfactory. Although during verification it will be checked again.	Y	Y
8. Quality Assurance (QA) and Quality Control (QC) procedures for data monitoring.	PDD	DR/ SV	QA and QC procedures for data monitoring were verified during site visit. It was found satisfactory and same will be again cross-checked during verification of the project activity.	Y	Y
9. Financial analysis for the project activity.	PDD	DR	The financial analysis spreadsheet for the project activity was submitted by project proponent and verified for IRR calculations. The document is attached in 'Project Doc' folder.	Y	Y
10. Calculation spreadsheet for baseline and project emission reductions during project crediting period.	PDD	DR	The excel spreadsheet for emission reduction calculation was obtained and the calculations were verified and same is found satisfactory. The document was attached in 'Project doc' folder.	Y	Y
11. Documentary evidence that the employees of the company undergone training programme related to project activity.	PDD	DR	The document was obtained; verified during local stakeholder consultation.	Y	Y

Annex 2: Validation Protocol

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

REQUIREMENT	Ref	MoV	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	PDD	DR	The project activity is likely to contribute to sustainable development. Letter of approval from Host Country (United Kingdom) Designated National Authority (DNA) to be submitted by the project proponent	CAR 1	Y
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	PDD	DR	The project activity is likely to contribute to sustainable development. Letter of approval from Host Country (India) Designated National Authority (DNA) to be submitted by the project proponent	CAR 1	Y
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	PDD	DR	Project is bilateral and India has ratified the protocol on 26th August 2002 and is allowed to participate. http://unfccc.int/parties_and_observers/parties/items/2109.php United Kingdom has ratified the protocol on 31st May 2002 and is allowed to participate. http://maindb.unfccc.int/public/country.pl?country=GB	Y	Y
1.4 The project results in reductions of	PDD	DR	The project activity is to	Y	Y

REQUIREMENT	Ref	MoV	Comment	Draft finding	Concl
GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario			generate 60 MW power by installing Wind Farm Project, and results in reduction of the GHG by replacing the grid based electricity which uses non sustainable fuel like coal etc.		
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available	PDD	DR/ UNFCCC Web-site	Yes, the project is listed on UNFCCC website from 21st November 2006 to 20th December 2006. http://cdm.unfccc.int/Projects/Validation/DB/ARMZOGH4ACGZMU5X0GP9GHA4YVGHYC/view.html The project was also listed on SGS climate change website from 21st November 2006 to 20th December 2006. http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=167 Number of comments received -1	Pending	Y
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance	PDD	DR	Project has used version 03.1 of PDD and followed the guidelines, except pending closure of some CARs/ NIRs.	Pending	Y
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	PDD	DR	No ODA has identified in PDD. Annex 2 of PDD does not give any information on ODA. Records to be checked during Site visit.	CAR2	Y
1.8 For AR projects, the host country shall have issued a communication	PDD	DR	Not relevant as the project is not an AR project.	Not Applica	Not Applic

REQUIREMENT	Ref	MoV	Comment	Draft finding	Concl
providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?				ble	able
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects	PDD	DR	Not applicable	Not applicable	Not applicable
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment?	PDD	DR	The version of PDD used by project proponent present all the information, except pending closure of some CARs/ NIRs.	Pending	Y
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	PDD	DR	The PDD uses reliable information and can be verified in an objective manner.	Pending Site visit clarification	Y

Table 2 Baseline methodology(ies) (Ref: PDD Section B and Annex 3 and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.1 Does the project meet all the applicability criteria listed in the methodology?	PDD	DR	Project meets all applicability criteria as per the approved consolidated baseline methodology ACM0002 version 6.0 dated 19th May 2006.	Y	Y
2.2 Is the project boundary consistent with the approved methodology?	PDD	DR	Project boundary is not consistent with the approved consolidated monitoring methodology. Para 3 of section B.3 says that Grid connected power plants are included in project boundary while the table below shows a contrast with the statement. Please clarify the same.	CAR3	Y
2.3 Are the baseline emissions determined in accordance with the methodology described?	PDD	DR	Excel spreadsheet for the calculation of baseline emissions to be provided by the Project Proponent.	NIR4	Y
2.4 Are the project emissions determined in accordance with the methodology described?	PDD	DR	The project emissions are taken as zero and this is in accordance with ACM0002 version 6.0 dated 19th May 2006.	Y	Y
2.5 Is the leakage of the project activity determined in accordance with the methodology described?	PDD	DR	It is mentioned in PDD that there is no leakage due to present project activity and it is in line with the ACM 0002 version 6.0 dated 19th May 2006.	Site visit	Y
2.6 Are the emission reductions determined in accordance with the methodology described?	PDD	DR	Calculations are to be checked from the excel sheet. Pending NIR4	Pending	Y

Table 3 Additionality (Ref: PDD Section B and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.1 Does the PDD follow all the steps required in the methodology to determine the additionality?	PDD	DR	All steps are followed according to the Tools for the demonstration and assessment of additionality (version 3) EB29 for determining the additionality of the present project activity.	Y	Y
3.2 Is the discussion on the additionality clear and have all assumptions been supported by transparent and documented evidence?	PDD	DR	The discussion on additionality is needs to be supported with proper evidences like; A copy of PPA between Project proponent and RRPVN, Jodhpur Discom. A copy of IRR sheet and loan document. Claims made on grid related problems. Sensitivity analysis sheet giving the information used in PDD. Please explain the alternatives given in step 1 of Section B.5 of PDD in short.	CAR5 CAR6	Y
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD	DR	The baseline may be the most likely scenario.	Y	Y
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario?	PDD	DR	Pending closure of CARs & NIRs.	Pending	Y

Table 4 Monitoring methodology (PDD Section B and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1 Does the project meet all the applicability criteria listed in the monitoring methodology	PDD	DR	Project meet all the applicability criteria listed in the monitoring methodology ACM0002 version 6.0 dated 19th May 2006.	Y	Y
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology?	PDD	DR	Yes the PDD provide the monitoring of the baseline emissions as required in the monitoring methodology ACM0002 version 6.0 dated 19th May 2006.	Y	Y
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology?	PDD	DR	As per ACM0002 version 6.0 dated 19th May 2006 the Project Emission for the present project activity is zero, so no need to monitor the project emission.	Y	Y
4.4 Does the PDD provide for the monitoring of the leakage as required in the monitoring methodology?	PDD	DR	As per ACM0002 version 6.0 dated 19th May 2006 no leakage is to be considered for the present project activity.	Y	Y
4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology?	PDD	DR	PDD does not provide relevant information on Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology. The responsibility flow chart given in PDD section B.7.2 is not correct.	CAR7	Y

Table 5 Monitoring plan (PDD Section B and Annex 4)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	PDD	DR	Pending CAR1	Pending	Y
5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD	DR	Not Applicable	Not Applicable	Not Applicable
5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD	DR	Not Applicable	Not Applicable	Not Applicable
5.1.3 Will it be possible to monitor the specified sustainable development indicators?	PDD	DR	Not Applicable	Not Applicable	Not Applicable
5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD	DR	Pending CAR1	Pending	Y
5.2 Project Management Planning			The project management planning was not described in the PDD.	NIR8	Y
5.2.1 Is the authority and responsibility of project management clearly described?	PDD	DR	The authority and responsibility of project management is not described in the PDD.	Pending NIR8	Y
5.2.2 Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	The authority and responsibility for registration, monitoring, measurement and reporting is not described in the PDD.	Pending NIR8	Y
5.2.3 Are procedures identified for training of monitoring personnel?	PDD	DR	Procedure identified for training of monitoring personnel is not mentioned in the PDD.	Pending NIR8	Y

CHECKLIST QUESTION		Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.2.4	Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	No specific procedure for emergency preparedness is identified in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.5	Are procedures identified for calibration of monitoring equipment?	PDD	DR	No specific procedure is identified for calibration of monitoring equipment in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.6	Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	No specific procedure is identified for maintenance of monitoring equipment and installations in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.7	Are procedures identified for monitoring, measurements and reporting?	PDD	DR	No specific procedure is identified for monitoring, measurements and reporting in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.8	Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	No specific performance evaluation procedure is identified in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.9	Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD	DR	No specific procedure is identified for dealing with possible monitoring data adjustments and uncertainties in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.10	Are procedures identified for review of reported results/data?	PDD	DR	No specific procedure is identified to review reported results/ data in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.11	Are procedures identified for internal	PDD	DR	No specific procedure is identified for internal	Pending	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
audits of GHG project compliance with operational requirements where applicable?			audits of GHG project compliance with operational requirements where applicable.	NIR8	
5.2.12 Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	No specific procedure is identified for project performance reviews before data is submitted for verification, internally or externally in the monitoring plan given in the PDD.	Pending NIR8	Y
5.2.13 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD	DR	No specific procedure is identified in the monitoring plan given in the PDD.	Pending NIR8	Y

Table 6 Environmental Impacts (Ref PDD Section D and relevant local legislation)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	Yes, PDD contain sufficient information.	Y	Y
6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR	Project has completed Rapid EIA and EIA Report is required to be obtained by the project proponent. The findings from Rapid EIA are required to be mentioned in the PDD.	NIR9	Y
6.3 Will the project create any adverse environmental effects?	PDD	DR	Pending NIR9	Pending NIR9	Y
6.4 Are transboundary environmental impacts considered in the analysis?	PDD	DR	No transboundary environmental impact identified from project activity. To be verified during site visit.	Site visit	Y
6.5 Have identified environmental impacts been addressed in the project design?	PDD	DR	Pending NIR9	Pending NIR9	Y
6.6 Does the project comply with environmental legislation in the host country?	PDD	DR	The project activity is complied with all environmental legislation in the host country India.	Pending NIR9	Y

Table 7 Comments by local stakeholders (Ref PDD Section E)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD	DR	No, the list of relevant stakeholders consulted is not complete. Please clarify which governmental and non-governmental parties are consulted for project activity.	CAR 10	Y
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	According to the PDD the Project Proponent placed advertisement in local news paper for inviting the local stakeholder comments. Supporting document need to be provided by the project proponent.	CAR 11	Y
7.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	The project participant has consulted the local stakeholders as a requirement for CDM project. MoM of the meeting is also given in Appendix 2 of the PDD. Documentary evidence needs to be checked.	Site Visit	Y
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	The summary of the stakeholder comments is not provided in the PDD.	NIR 12	Y
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	Due account taken of stakeholder comments received is mentioned in the PDD	Y	Y

Table 8 Other Requirements

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	The PDD template for version 03.1 has been applied correctly.	Y	Y
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Pending CARs and NIRs	Pending	Y
8.2 Technology to be employed					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR	The project reflects current good practice for project design engineering.	Site visit	Y
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	The project does not uses state of the art technology as per technology details given in section A.4.3 of the PDD. Technical specifications of the Wind Energy Turbines need to be checked during site visit.	Site Visit	Y
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	Proof for the same has to be submitted by the project proponent.	CAR 13	Y
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR	No information was found regarding training and maintenance efforts for project activity in the PDD.	CAR 14	Y
8.3 Duration of the Project/ Crediting Period					
8.3.1 Are the project's starting date and	PDD	DR	Project activity starting	CAR	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
operational lifetime clearly defined and reasonable?			date is mentioned as 10-03-2006 in the PDD section C.1.1. Evidence for the same is required to be submitted.	15	
8.3.2 Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	Fixed crediting period of 10 years is selected for the project activity and it is reasonable.	Y	Y
8.2.3 Does the project's operational lifetime exceed the crediting period	PDD	DR	The project's operational life time is expected to be 20 years which exceeds the crediting period of 10 years.	Y	Y

Annex 3: Overview of Findings

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
1	CAR	Project proponent is required to submit the Letter of Approval for the present project activity from Host country.	1.2
Date The letter from Indian DNA is enclosed.			
Date:2007-03-15 [Nikunj Agarwal] [Comments from Local Assessor] HCA from Indian DNA is not submitted by the project proponent. [Acceptance and close out] Open			
Date The letter from Indian DNA is enclosed.			
Date:2007-04-19 [Nikunj Agarwal] [Comments from Local Assessor] HCA from Indian DNA has been submitted by the project proponent, but the same has to submit from the United Kingdom DNA. Also Include the Cooperative Centrale Raiffeisen-Boerenleenbank B.A. as a project participant in section A.3 also. [Acceptance and close out] Open			
Date: The other party involved (Cooperative Centrale Raiffeisen-Boerenleenbank B.A) is added in the section A.3 as pointed out by DOE.			
Date:2007-04-19 [Nikunj Agarwal] [Comments from Local Assessor] The Cooperative Centrale Raiffeisen-Boerenleenbank B.A. is added as a project participant in section A.3, but the HCA from the same is still missing, Hence the CAR 1 was not closed. [Acceptance and close out] Open			
Date:HCA from U.K. has been submitted to DOE.			
Date:2007-04-23 [Nikunj Agarwal] [Comments from Local Assessor] HCA fro U.K has been submitted by the Project Proponent, the same has been checked and verified, so the CAR01 can be closed [Acceptance and close out] OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
2	CAR	No ODA has identified in PDD as per section A.4.5. Annex 2 of PDD does not give any information on ODA. Please correct the same.	1.7
Date: Letter of undertaking from Enercon has been provided. The Annex 2 of the PDD has been revised.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] Letter of undertaking from project proponent has been submitted same has been cross-checked with Annex 2 of rephrased PDD; which gives information on no ODA use in the project activity. This is found acceptable. CAR can be closed [Acceptance and close out] OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref

3	CAR	Project boundary is not consistent with the approved consolidated monitoring methodology. Para 3 of section B.3 says that Grid connected power plants are included in project boundary while the table below shows a contrast with the statement. Please clarify the same.	2.2
Date: The first line in the PDD "The project boundary encompasses the physical, geographical site of the Project sited at the Project Location. It would include the wind turbine installations and sub-station up to the Metering Point." will be removed in the revised PDD. This will make the project boundary definition in para 3 of Section B.3 consistent with ACM0002.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] The same has been corrected by the project proponent in revised version of PDD which has been found acceptable. CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
4	CAR	Excel spreadsheet for the calculation of baseline emissions to be provided by the Project Proponent.	2.3
Date: This has been provided.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] CEA has developed a database for Grid emission factor values and it is available on their web-site www.cea.nic.in . This database is specially prepared for CDM related projects. Please explain why CEA data for grid emission factor has not been used by the project proponent. [Acceptance and close out]Open			
The Baseline has been revised to values as given by the CEA (Central Electricity Authority of India). The CEA baseline can visited at the following Link: www.cea.nic.in. The difference in the amount of the CERs estimated in the latest version of PDD is on the account of change of the baseline emission factor to CEA values. The PLF considered for the wind power project located in Rajasthan is derived from the RERC order (Rajasthan Electricity Regulatory Commission) dated 29/09/2006.			
Date: 2007-04-19[Nikunj Agarwal] [Comments from Local Assessor] The grid emission factor has now been taken as per CEA data and same has been accepted. So the CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
5	CAR	The discussion on additionality is needs to be supported with proper evidences like; A copy of PPA between Project proponent and RRPVN, Jodhpur Discom. A copy of IRR sheet and loan document. Claims made on grid related problems.	3.2

		Sensitivity analysis sheet giving the information used in PDD.	
Date: These have been provided.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] The documents like PPA, IRR excel spreadsheet has been submitted by the project proponent and found satisfactory after cross-checking the same. However no sensitivity analysis sheet was provided. [Acceptance and close out]Open			
Date: These have been provided.			
Date: 2007-04-19[Nikunj Agarwal] [Comments from Local Assessor] The same has been received and found satisfactorily; hence the CAR was closed out. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
6	CAR	Please explain the alternatives given in step 1 of Section B.5 of PDD in short.	3.2
Date: The alternatives mentioned in Step 1 of Section B.5 in the PDD include the project not undertaken as CDM project activity, continuation of the current situation and utility scale fossil fuel fired/hydro projects. Enercon understands that the query relates to explain the last set of alternatives, i.e., utility scale fossil fuel fired/hydro projects. The utility scale fossil fuel fired/hydro projects imply large coal-fired, gas-fired, diesel-fired and hydro projects, as these are alternatives available to similar project developers. These are realistic alternatives as similar project developers are developing several such projects. These are credible alternatives as the scope of project development, size of investments and time scale for development for the wind farms developed by Enercon are similar to that for utility scale fossil fuel fired/hydro projects.			
Date:2007-03-15 [Nikunj Agarwal] [Comments from Local Assessor] The explanation by Project proponent has been found satisfactorily, so this Car can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
7	CAR	PDD does not provide relevant information on Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology. The responsibility flow chart given in PDD section B.7.2 is not correct.	4.5
Date: The QA/QC procedures for monitoring the electricity supplied to the grid (the only parameter to be monitored) are governed by the power purchase agreements and relevant electricity sector regulations. Section B.7.1 states this and the relevant QA/QC procedures are set out under Annex 4. The responsibility flow chart in PDD section B.7.2 has been corrected.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] The same has been incorporated in the revised PDD, Annex 4 of the rephrased PDD was checked for the monitoring information and QA/QC procedure for data monitoring, so this CAR can be closed.			

[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
8	NIR	The project management planning was not described in the PDD.	5.2
Date: The Project has been implemented.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] The Project Management planning has been discussed during site visit, and has been rephrased in the revised PDD. During the site visit it was confirmed that the project has already been implemented. NIR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
9	NIR	Project has completed Rapid EIA and EIA Report is required to be obtained by the project proponent. The findings from Rapid EIA are required to be mentioned in the PDD.	6.2
Date: The EIA report has been provided. The findings of the EIA are set out in the section D.1 of PDD.			
Date:2007-03-15 [Nikunj Agarwal] [Comments from Local Assessor] EIA report for the project activity was not submitted to the validator. [Acceptance and close out]Open			
Date: The EIA report has been provided.			
Date:2007-04-19 [Nikunj Agarwal] [Comments from Local Assessor] EIA report for the project activity has been submitted received and the same has been checked for the effect of water, air etc on the project activity. So this NIR can be closed. [Acceptance and close out]OK, Closed out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
10	CAR	Please clarify which governmental and non-governmental parties are consulted for project activity.	7.1
Date: The procedure for inviting local stakeholders for the meeting and the minutes of meetings are provided in the PDD. Enercon does not understand the specific requirement for consulting governmental and non-governmental parties for local stakeholder consultation.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] The documents regarding local stakeholder consultation and MoM of meeting are provided by the project proponent and found acceptable. CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
11	CAR	Evidence needs to be provided by the project proponent regarding how local stakeholders are informed about the project activity.	7.2
Date: Enercon invited suggestions by giving public notice in the newspaper. The copy of the public notice has been provided.			

Date:2007-03-15 [Nikunj Agarwal] [Comments from Local Assessor] Letter written to Gram Sarpanch regarding the project activity and seeking their comments on the same has been provided to the validator. Same has been cross-checked during local stakeholder consultation at site visit and found acceptable. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
12	NIR	The summary of the stakeholder comments is not provided in the PDD.	7.4
Date: A revised summary is provided in the revised PDD in section E.2.			
Date: [Nikunj Agarwal] [Comments from Local Assessor] The same has been incorporated in the rephrased version of PDD, so this NIR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
13	CAR	A letter from project proponent is required to be submitted mentioning that the present project technology will not be substituted or replaced by more efficient technologies with in the crediting period.	8.2.3
Date: Letter of undertaking from Enercon has been provided.			
Date:2007-03-15 [Nikunj Agarwal] [Comments from Local Assessor] The letter of undertaking was submitted by the project proponent and same accepted. CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
14	CAR	No information was found regarding training and maintenance efforts for project activity in the PDD.	8.2.4
Date: The information regarding training and maintenance is added to the revised PDD Section B.7.2.			
Date: 2007-03-15 [Nikunj Agarwal] [Comments from Local Assessor] The revised version of PDD was cross-checked for the information under section B.7.2 and same was found acceptable. CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 12th December 2006 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
15	CAR	Project activity starting date is mentioned as 10-03-2006 in the PDD section C.1.1. Evidence for the same is required to be submitted.	8.3.1
Date: The evidence (purchase order) has been provided.			
Date: 2007-03-15[Nikunj Agarwal] [Comments from Local Assessor] A copy of purchase orders for the project activity was submitted by the project proponent. It was cross-checked from that the first purchase order under this project was raised on 10th March			

2006. Hence the same can be accepted as the evidence for the start date of the project activity, so this CAR can be closed.
[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Annex 4: Statements 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: 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: Bankar, Vikas SGS Affiliate: SGS India

Status

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

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) **x**
Sub scope(s): Wind, Combined heat and power and Biomass Electricity utilization

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: 12 November 2009

Statement of Competence

Name: Sanjeev Kumar (previous team member)
SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor /Trainee Lead Assessor	☐	☐

Scopes of Expertise

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

Approved Member of Staff by Siddharth Yadav Date: 16th May 2007

Statement of Competence

Name: Nikunj Agarwal (previous team member)

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☐	☐
- Assessor / Trainee Lead Assessor	☐	☐

Scopes of Expertise

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

Approved Member of Staff by Marco van der Linden Date: 03-04-07

Statement of Competence

Name: Vikrant Badve
(previous team member)

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☐	☐
- Assessor / Trainee Lead Assessor	☐	☐

Scopes of Expertise

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

Approved Member of Staff by Marco van der Linden Date: 29-12-06