



VALIDATION REPORT

M/S SHAH PROMOTERS & DEVELOPERS

WIND ENERGY PROJECT IN MAHARASHTRA
BY M/S SHAH PROMOTERS & DEVELOPERS

Report No: 53708408-09/51

Date: 2011-02-11

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Project:	Title:	Initial PDD Version:	Final PDD Version	
	Wind Energy Project in Maharashtra by M/s Shah Promoters & Developers	00	03	
Client:	M/s Shah Promoters & Developers	Client ref:	Mr. Rajesh Chandrakant Shah (Partner)	
Project Participant(s):	Host Party:	Other involved parties:		
	India	-		
Applied methodology/ies:	Title:	No.:	Scope / TA:	
	Grid connected renewable electricity generation	AMS I.D./Version 16	01 / T	
Validation team / Technical Review and Final Approval	Validation Team:	Technical review:	Final approval:	
	Manojkumar Borekar (TL) Swapnil Thanekar (TM), Naresh Kumar Suneja (TM), Atul Takarkhede (TM)	Ingo Klein, Alexander Richter, Heiner Lenzian	Martin Saalmann	
Expected Emission reductions: [t CO_{2e}]	Expected emission reductions over the first crediting period:		Expected project starting date:	
	114160 t CO _{2e}		2011-04-01	
Confidential content:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
Summary of Validation Opinion:	<input checked="" type="checkbox"/> Positive validation opinion		<input type="checkbox"/> Negative validation opinion	
	<p>M/s Shah Promoters & Developers has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: "Wind Energy Project in Maharashtra by M/s Shah Promoters & Developers" with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board</p> <p>In the course of the pre-validation 12 Corrective Action Requests (CARs) and 07 Clarification Requests (CLs) were raised and successfully closed.</p> <p>The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.</p> <p>In detail the conclusions can be summarised as follows:</p> <ul style="list-style-type: none"> - The project is in line with all relevant host country criteria (India) and all relevant UNFCCC requirements for CDM. Project activity approval have been obtained from DNA of India vide the Letter of Approval (HGA) No. 4/9/2009-CCC, dated 2009-07-17 . - The project additionality is sufficiently justified in the PDD. - The monitoring plan is transparent and adequate. - The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 114160 tCO_{2e} are most likely to be achieved within the 10 years (fixed) crediting period at an average of 11416 t CO_{2e} per annum. <p>The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.</p>			
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Abbreviations

BAU	Business as usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CO₂	Carbon dioxide
CO₂e	Carbon dioxide equivalent
CP	Certification Program
CL	Clarification Request
CUF	Capacity Utilization Factor
DNA	Designated National Authority
DR	Document Review
EB	CDM Executive Board
EIA	Environmental Impact Assessment
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
HGA	Host Government Approval
I	Interview
IPCC	Intergovernmental Panel on Climate Change
MEDA	Maharashtra Energy Development Agency
MERC	Maharashtra Electricity Regulatory Commission
MITCON	MITCON Consultancy Services Limited
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MW	Megawatt
MWh	Megawatt hour
ODA	Official Development Assistance
PDD	Project Design Document
PLF	Plant Load Factor
PPA	Power Purchase Agreement
QC/QA	Quality control/Quality assurance
ROE	Return on Equity
SPD	M/s Shah Promoters & Developers
UNFCCC	United Nations Framework Convention on Climate Change
WEG	Wind Electric Generator
WTG	Wind Turbine Generator

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1 OBJECTIVE / SCOPE

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

- the requirements of Article 12 of the Kyoto Protocol;
- the CDM modalities and procedures as agreed in the Marrakech Accords under decision 3/CMP.1
- the annex to the decision;
- subsequent decisions made by COP/MOP & CDM Executive Board and
- other relevant rules, including the host country legislation and sustainability 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 on the quality of the project and its intended generation of certified emission reductions (CERs).

The validation scope is given as a thorough independent and objective assessment of the project design including especially: the correct application of the methodology, the project's baseline study, additionality justification, local stakeholder commenting process, environmental impacts and monitoring plan, which are included in the PDD and other relevant supporting documents, to ensure that the proposed CDM project activity meets all relevant and applicable CDM criteria.

The information included in the PDD and the supporting documents were reviewed against the requirements as set out by the UNFCCC. The validation team has, based on the requirements in the Validation and Verification Manual^{VVM}, carried out a full assessment of all evidences to assess the compliance of the project with the key areas as outlined in section V.E. and V.F. of the VVM (version 01.2, EB 55).

The validation is based on the information made available to TÜV NORD JI/CDM CP and on the contract conditions. TÜV NORD JI/CDM CP can not be held liable by any entity for making its validation opinion based on any false or misleading information supplied to it during the course of validation.

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

2 GHG PROJECT DESCRIPTION

2.1 Project Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: Project Characteristics

Item	Data
Project title	Wind Energy Project in Maharashtra by M/s Shah Promoters & Developers
Project size	<input type="checkbox"/> Large Scale <input checked="" type="checkbox"/> Small Scale
Project Scope (according to UNFCCC sectoral scope numbers for CDM)	<input checked="" type="checkbox"/> 1 Energy Industries (renewable- /non-renewable sources)
	<input type="checkbox"/> 2 Energy distribution
	<input type="checkbox"/> 3 Energy demand
	<input type="checkbox"/> 4 Manufacturing industries
	<input type="checkbox"/> 5 Chemical industry
	<input type="checkbox"/> 6 Construction
	<input type="checkbox"/> 7 Transport
	<input type="checkbox"/> 8 Mining/Mineral production
	<input type="checkbox"/> 9 Metal production
	<input type="checkbox"/> 10 Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/> 11 Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/> 12 Solvents use
	<input type="checkbox"/> 13 Waste handling and disposal
	<input type="checkbox"/> 14 Afforestation and Reforestation
	<input type="checkbox"/> 15 Agriculture
Applied Methodology	AMS.I.D. Version 16 (Grid connected renewable electricity generation)
Technical Area(s)	T: Renewables - Wind
Crediting period	<input type="checkbox"/> Renewable Crediting Period (7 y) <input checked="" type="checkbox"/> Fixed Crediting Period (10 y)
Start of crediting period ¹	01/08/2009 or date of registration whichever is later

2.2 Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity (Table 2-2).

Table 2-2: Project Parties and project participants

Characteristic	Party	Project Participant
Host party	India	M/s Shah Promoters & Developers
Other involved party/ies	-	No Annex-I Party is involved at the Validation stage.

¹ As per the published PDD (version 1)
The revised starting date of crediting period is 01/04/2011

2.3 Project Location

The details of the project location are given in table 2-3:

Table 2-3: Project Location

For WTG installed at location E-53/12

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.195, Village – Baradari, Taluka -Ahmednagar, Dist - Ahmednagar
Latitude:	19°06' 20.9"N
Longitude:	74°50' 01.1"E

For WTG installed at location E-53/13

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.206/A, Village – Baradari, Taluka –Ahmednagar, Dist - Ahmednagar
Latitude:	19°06' 28.8"N
Longitude:	74°50' 01.6"E

For WTG installed at location E-53/14

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No. 206/A, Village – Baradari, Taluka -Ahmednagar, Dist - Ahmednagar
Latitude:	19°06' 35.3"N
Longitude:	74°50' 00.6"E

For WTG installed at location E-53/118

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.282, Compt. No.- 315 PT, Village – Khandke, Taluka - Ahmednagar, Dist – Ahmednagar
Latitude:	19°07' 36.6"N
Longitude:	74°52' 57.2"E

For WTG installed at location E-53/128

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.217, Village – Jamb, Taluka -Ahmednagar , Dist – Ahmednagar
Latitude:	19°06' 07.3"N
Longitude:	74°53' 34.8"E

For WTG installed at location E-53/129

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.217, Village – Jamb, Taluka -Ahmednagar, Dist – Ahmednagar
Latitude:	19°06' 00.5"N
Longitude:	74°53' 37.2"E

For WTG installed at location E-53/70

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.208, Village – Agadgaon, Taluka -Ahmednagar, Dist – Ahmednagar
Latitude:	19°10' 32.0"N
Longitude:	74°52' 55.2"E

For WTG installed at location E-53/97

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.365, Village – Agadgaon, Taluka -Ahmednagar, Dist - Ahmednagar
Latitude:	19°09' 29.6"N
Longitude:	74°52' 51.4"E

For WTG installed at location E-53/100

No.	Project Location
Host Country	India
Region:	Maharashtra
Project location address:	Gut No.365, Village – Agadgaon, Taluka -Ahmednagar, Dist – Ahmednagar
Latitude:	19°09' 32.6"N

No.	Project Location
Longitude:	74 °52' 25.4"E

2.4 Technical Project Description

The technical key data are provided in table 2-4 below

Table 2-4: Technical data of the project activity ENERCON (E-53) 800 KW WEG

Parameter	Unit	Value
Rated power	kW	800
Hub-height	m	75
Rotor (Diameter)	m	53
Turbine type	-	Direct driven, upwind, horizontal axis wind turbine with variable rotor speed.
Power regulation	-	Independent pitch system for each blade.
Design life time	years	20
Cut-in wind speed	m/s	2.5
Rated wind speed	m/s	12
Cut-out wind speed	m/s	28-34
Extreme wind speed	m/s	59.5
Rated rotational speed	rpm	32
Operating range rotational speed	rpm	12 – 29
Orientation	-	Upwind
No. of blades	-	3
Blade material	-	Glass Fibre Epoxy Reinforced
Gear box type	-	Gearless
Braking	-	Aerodynamic
Output voltage	V	400
Yaw system	-	Active yawing with 4 electric yaw drives with brake motor.
Generator		
Type	-	Sync. - Wound rotor
Number	-	1
Max speed	rounds/minute	29
Output voltage	V	400

3 METHODOLOGY AND VALIDATION SEQUENCE

3.1 Validation Steps

The validation of the project consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the project design document (PDD)
- Desk review of the PDD and supporting documents
- Validation planning
- On-Site assessment
- Background investigation and follow-up interviews with personnel of the project developer and its contractors
- Draft validation reporting
- Resolution of corrective actions (if any)
- Final validation reporting
- Technical review
- Final approval of the validation

The sequence of the validation is given in the table 3.1 below:

Table 3.1: Validation sequence

Topic	Time
Assignment of validation	2009-02-19
Submission of PDD for global stakeholder commenting process	2009-04-22
On-site visit	2009-06-12
Draft reporting finalised	2009-07-22
Final reporting finalised	2011-02-08
Technical review on final reporting finalised	2011-02-11

3.2 Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the validation can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

3.3 Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a validation team, consistent of one team leader and 3 additional team members, were appointed. Furthermore also the personnel for the technical review and the final approval were determined.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 3-2 below.

Table 3-2: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence	Technical competence ⁴⁾	Host country Competence	Team Leading competence
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Martin Saalman	TUV Nord GmbH	FA	SA	<input checked="" type="checkbox"/>	-	-	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Ingo Klein	TUV Nord GmbH	TR ³⁾	A	<input checked="" type="checkbox"/>	T	-	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Alexander Richter	TUV Nord GmbH	TR ³⁾	E	<input checked="" type="checkbox"/>	-	-	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Heiner Lenzian	TUV Nord GmbH	TR ³⁾	E	<input checked="" type="checkbox"/>	T	-	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Manojkumar Borekar	TUV India Pvt. Ltd.	TL	SA	<input checked="" type="checkbox"/>	T	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence	Technical competence ⁴⁾	Host country Competence	Team Leading competence
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Swapnil Thanekar	TUV India Pvt. Ltd.	TM	E	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Nareshkumar Suneja	TUV India Pvt. Ltd.	TM	E	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Atul Takarkhede	TUV India Pvt. Ltd.	TM	E	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; E: Expert; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ No team member

⁴⁾ As per S01-MU03 or S01-VA070 A2 (such as A, B, C.....)

Certificates of appointment for the above mentioned team members are enclosed in annex 6 of this report.

3.4 Consideration of Public Stakeholder Comments

Acc. to the modalities and procedures the draft PDD, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the validation activity commenced. Stakeholders have been invited to comment on the PDD within the 30 days public commenting period.

In case comments are received, they are taken into account during the validation process. The comments and the discussion of the same are documented in annex 5 of this report.

3.5 Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements each CDM project has to meet as well as project specific issues as applicable. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM project is expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol is described in Figure 1.

Validation Protocol Table A-1: Requirement checklist				
Checklist Item	Validation Team Comment	Reference	Draft Conclusion	Final Conclusion
<i>The checklist items in Table A-1 are linked to the various requirements the project should meet. The checklist is organised in various sections. Each section is then further sub-divided as per the requirements of the topic and the individual project activity.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the VVM shall be covered in this section.</i>	<i>Gives reference to the information source on which the assessment is based on</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.</i>	<i>In case a corrective action or a clarification the final assessment at the final validation stage is given.</i>

Figure 1: Validation protocol table

The completed validation protocol is enclosed in Annex 1 to this report.

3.6 Review of Documents

The published PDD (version 1) and supporting background documents related to the project design and baseline were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

3.7 Follow-up Interviews

The validation team has carried out interviews in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for CDM.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 3-3.

Table 3-3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project proponent representatives Mr. Rajesh Chandrakant Shah - Partner –Management, M/s Shah Promoters & Developers Mr. Sunit Shah – Representative, M/s Shah Promoters & Developers Mr. Hemant – Accountant, M/s Shah Promoters & Developers Mr. Umesh Kadam – Accountant, M/s Shah Promoters & Developers	<ul style="list-style-type: none"> - Chronological description of the project activity with documents of key steps of the implementation. - Current status of plant design - Technical details of the project realization, project feasibility, designing, operational life time, monitoring of the project - Host Government Approval - Approval procedures and status - Monitoring and measurement equipment and system. - Baseline study assumptions - Additionality - Analysis of local stakeholder consultation
Project Consultant representatives Mrs. Pooja Verma Chief Consultant – (MITCON) Mr. Vikash Kumar Singh Senior Consultant– (MITCON) Mr. Anant Ladukar Project Consultant– (MITCON) Mr. Chandra Prakash Singh Financial Expert- (MITCON)	<ul style="list-style-type: none"> - National Legislation - Editorial issues of the PDD - Statutory approvals, Host Government Approval - Quality and environmental management system: QC testing and calibration procedures and facility - Monitoring and measurement equipment- Power Generation and Metering system, grid connection of ACIPL - Financial aspects- Government Incentives, equity: loan, benchmark - Crediting period
O & M Contractor representatives Mr. J. V. Mamadapure, Enercon India Limited. Mr. P. B. Patil, Enercon India Limited.	<ul style="list-style-type: none"> - Project activity starting date - CER allocation /ownership - Baseline study assumptions - Sustainable development issues, Analysis of local stakeholder consultation - Roles and responsibilities of the staff members w.r.t project management, monitoring and reporting - Technical specification data: capacity of turbo-

Interviewed Persons / Entities	Interview topics
	generator, expected PLF, energy generation

A comprehensive list of all interviewed persons is part of section 7 'References'.

3.8 Project comparison

The validation team has compared the proposed CDM project activity with similar projects or technology that have similar or comparable characteristics and with similar projects in the host country in order to achieve additional information esp. regarding:

- Project technology
- Additionality issues
- Reasons for reviews, requests for reviews and rejections within the CDM registration process.

3.9 Resolution of Clarification and Corrective Action Requests

3.9.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,
- the requirements deemed relevant for validation of the project with certain characteristics have not been met or
- there is a risk that the project would not be registered by the UNFCCC or that emission reductions would not be able to be verified and certified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to project implementation should be reviewed during the first verification.

3.9.2 Draft Validation

After reviewing all relevant documents and taken all other relevant information into account, the validation team issues all findings in the course of a draft validation report and hands this report over to the project proponent in order to respond on the issues raised and to revise the project documentation accordingly.

3.9.3 Final Validation

The final validation starts after issuance of the proposed corrective action (CA) of the CARs CLs and FARs by the project proponent. The project proponent has to reply on those and the requests are “closed out” by the validation team in case the response is assessed as sufficient. In case of raised FARs the project proponent has to respond on this, identifying the necessary actions to ensure that the topics raised in this finding are likely to be resolved at the latest during the first verification. The validation team has to assess whether the proposed action is adequate or not.

In case the findings from CARs and CLs cannot be resolved by the project proponent or the proposed action related to the FARs raised cannot be assessed as adequate, no positive validation opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in chapter 4.

3.10 Technical review

Before submission of the final validation report a technical review of the whole validation procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.11 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the complete validation will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the request for registration can be started (in case of a positive validation opinion).

4 VALIDATION FINDINGS

In the following table the findings from the desk review of the published PDD, visits, interviews and supporting documents are summarised:

Table 4-1: Summary of CARs, CLs and FARs issued

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
General description of project activity (A) - Project specification - Technical project description - Participation - Contribution to sustainable development - PDD editorial aspects - Technology to be employed	2	2	-
Project Baseline, Additionality and Monitoring Plan (B) - Application of the Methodology - Project Boundary - Baseline identification - Calculation of GHG emission reductions Project emissions Baseline emissions Leakage - Additionality determination - Monitoring Methodology - Monitoring Plan - Project management planning	8	5	-
Duration of the Project / Crediting Period (C)	1	-	-
Environmental impacts (D)	-	-	-
Stakeholder Comments (E)	1	-	-
SUM	12	07	-

¹⁾ The letters in brackets refer to the validation protocol

The following tables include all raised CARs, CLs and FARs. For an in depth evaluation of all validation items it should be referred to the validation protocols (see Annex 1).

The findings of validation process are summarized in the tables below.

General	Finding A1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The sentence “had this amount of electricity.....per annum” under section A.2 of the PDD is incorrect as the electricity generated from the project activity will displace electricity from NEWNE grid.</p> <p>Furthermore, the PP should provide the link to MoEF website for the traceability of guidelines to indicate contribution of project activity towards sustainable development.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The statement “had this amount of electricity.....per annum” has now been corrected under section A.2 in the revised version of PDD.</p> <p>The web-link of the MoEF Website has now been included under section A.2 in the revised version of PDD.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ul style="list-style-type: none"> • Sentence is appropriately corrected. The PP has mentioned emission reduction would have caused due to displacement of electricity in the NEWNE grid instead of displacement of electricity from the fossil fuel plants in the NEWNE grid. OK • Appropriate web link inserted, OK <p>The Corrective Action Request raised under finding A1 has been CLOSED.</p>		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements		

General	Finding A2		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Please substantiate on the sentence “this includes development..... availability of electricity” under section A.2 of PDD, social wellbeing. Clarification requested.</p>		

General	Finding A2
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The present project activity will lead to infrastructure development in and around the project area. This includes development of road network.</p> <p>The present project activity will also reduce the demand-supply gap of electricity in the country; hence will lead to the improvement in the availability of electricity.</p> <p>The sentence is now been reframed to make it more comprehensible.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Not OK, the PP should also indicate if the road has been exclusively constructed due to the infrastructure development for the project activity.</p>
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>No, the road network has not been developed exclusively for the project activity. Infrastructure development has been undertaken for the wind farm as whole of which the project activity is a part. Accordingly the PP has reframed the sentence as below:</p> <p><i>“Infrastructure development has been undertaken for the wind farm as whole of which the project activity is a part. It will also reduce the demand-supply gap of electricity; hence will lead to the improvement in availability of electricity.”</i></p>
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PP has appropriately reframed the sentence to reflect the actual benefits that will be obtained due to implementation of the project activity.</p> <p>The Clarification Request raised under finding A2 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p>

General	Finding A3
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Under section A.4.1.4 of PDD, clarification is requested on how these of latitude and longitude are obtained.</p> <p>Furthermore provide location of the project site as per exact GPS pointers.</p>

General	Finding A3
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The latitude and longitude provided in the PDD is exact GPS location of the WTGs provided by the O & M contractor. Furthermore, the PP has updated the PDD with the references of exact site details like Gut No, village name, taluka and district with the help of submitted Infrastructure clearances (Ref: PGN-I/IC/Shah P & D/3.20MW/08-09/1515 dated 2009-03-25, PGN-I/IC/Shah P & D/2.40MW/08-09/1529 dated 2009-03-26 and PGN-I/IC/Shah P & D/1.60MW/09-10/3874 dated 2009-06-26).
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Not OK, the PP should submit the appropriate supportive to substantiate the above reply.
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The co-ordinates have been taken by GPS. The PP has now submitted the DOE with email provided by the O & M contractor. Furthermore the PP has also provided MEDA clearance certificates as supportive to the gut numbers.
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	NOT OK, the DOE also finds mismatch between the gut numbers of WTG location number 97 and 100 mismatching with the MEDA Infrastructure Clearance (Ref: PGN-I/IC/Shah P & D/1.60MW/09-10/3874 dated 2009-06-26).
Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The gut numbers of WTG location number 97 and 100 are appropriately corrected.
DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ul style="list-style-type: none"> • The DOE is in receipt of the supportive evidences. OK • The DOE has checked and confirms that the reported gut numbers are in line with the MEDA clearance certificates. The Clarification raised under finding A3 has been CLOSED.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding A4
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Under section A.4.2 of PDD, the technical description is incomplete as it fails to incorporate technical description of the generator.

General	Finding A4
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The technical description of the generator is now included in the revised version of PDD. The entire description of generator is included in a different table under section A.4.2 of PDD.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The PDD has provided the technical description of the generator. The supportive documents for the technical description are provided to the DOE. The Corrective Action Request raised under finding A4 has been CLOSED.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B1
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Under section B.4 of PDD, the PP has mentioned region wise installed capacity as on 2007/03/30; clarification is requested as why data published in the year 2008 is not used to depict region wise installed capacity.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Since, the project was conceptualized in March 2008; the PP has referred to most recent data available at the time of decision making i.e. the Region wise installed capacity (MW) as on 30.03.2007 (ref: http://cea.nic.in/planning/c%20and%20e/user_guide_ver2.pdf) however the baseline determination of the project activity was completed on date 2009-03-30 and hence the PP has accordingly revised PDD in line with the recent database applicable at the time of baseline determination i.e. Region wise installed capacity ² (MW) as on 31.03.2008. Furthermore, it can be appreciated by the fact that the thermal power plants remain as the predominant electricity source (71 % of the total installed capacity in the Western region of country).

² http://www.cea.nic.in/power_sec_reports/Executive_Summary/2008_03/8.pdf

General	Finding B1
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PP has appropriately updated the region wise installed capacity by referring to the latest applicable published data available at the time of baseline determination and substantiated that the thermal power plants were predominant by considering database published by CEA (ref link http://www.cea.nic.in/power_sec_reports/Executive_Summary/2008_03/8.pdf). The DOE confirms that the data used in the revised PDD corresponds with the above mentioned published data.</p> <p>The Clarification request raised under finding B1 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B2
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Under section B.5 of PDD, separate list of documents regarding the project implementation and steps towards availing CDM funds are requested to be provided.</p> <p>In addition documentation proof is needed for “the process took longer than anticipated.....for validation.”</p>

General	Finding B2
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>More precise list of documents pertaining to CDM consideration as per EB 49 annex 22 has been included in section B.5 of the PDD.</p> <p>The sentence “the process took longer than anticipated.....for validation” has been removed from the revised PDD. The context under which the particular sentence was written is to substantiate the delay between appointment of consultant and appointment of DOE. The sole reason for this delay was non-availability of site details. Part of the project was being developed on forest land requiring clearance from MoEF. The process took longer than anticipated. In absence of exact location of the WTGs, the project could neither be submitted for HGA nor taken up for validation.</p> <p>Moreover from the revised table of section B.5 of the PDD it very much clear that after releasing the PO for the equipments PP had appointed the present consultant in May 2008 and subsequently the DOE was appointed in February 2009, since the time gap between the two documented evidence is less than a year, the project full fills the stipulation made under EB 49 annex 22. All documents pertaining to this justification has been be submitted to the DOE.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Not OK, the PP should provide appropriate documents in line with the mentioned chronology under section B.5 to satisfactorily close the issue.</p>
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Hard copy of the documents pertaining to the delay has been submitted to the DOE.</p>
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The DOE is in receipt of all the documents pertaining to the chronology as stated under section B.5 of revised PDD. The DOE also confirms that the PP successfully meets the requirements as stipulated under CDM consideration as per EB 49 annex 22.</p> <p>The Corrective Action Request raised under finding B2 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p><input type="checkbox"/> To be checked during the first periodic verification</p> <p><input type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p>

General	Finding B3		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR

General	Finding B3
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ol style="list-style-type: none"> Under section B.5 of PDD, the benchmark mentioned needs to be corrected as it is not in line with assumption at the time of decision making. Under section B.5 of PDD, the data of barrier due to prevailing practice does not correspond with the start date of decision making by the PP. Since the PP has taken MERC CUF i.e., 20% for estimation of electricity generation the following sentence “on the whole these figures remained WTG supplier” has no implication on additionality under section B.5 of PDD.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<ol style="list-style-type: none"> The Promoters entered the renewable energy arena in the year 2006. Their first investment in this sector was a 14 MW capacity wind farm in Dhule and Sangli districts of Maharashtra. At the time of decision on their earlier project a return of 16 % was expected by the promoter. This value corresponded with the minimum ROE in Wind Power Projects in Maharashtra as declared by MERC in its order dated 24th November 2003. However in its 40th meeting, CDM EB rejected this benchmark, hence the promoters revaluated the expected returns on the basis of CAPM Model. The benchmark that emerged from this model was 16.95 %. As the present project activity is in the same sector and in the same State, the promoters are expecting a similar return on equity for the present project activity. Hence, the 16.95 % benchmark derived for this project activity is as per CAPM model. Same can be viewed on the CDM EB website http://cdm.unfccc.int/Projects/DB/RWTUV1229007791.61/view. The benchmark considered is more conservative than that of assumptions at the time of decision making, which comes to 21.88% (the detailed calculation is given in the IRR excel sheet). Hence as a conservative approach the benchmark taken for the previous project i.e. 16.95 % has been taken for the present case. The most recent data available has been used to demonstrate barrier due to prevailing practice. The sentence has now been reframed in the revised version of PDD.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ol style="list-style-type: none"> NOT OK, the PP has not taken account finding B8, para 2. NOT OK, the data over the appropriate time period should be included in the PDD. NOT OK, transparent reply stating the action taken by the PP should be included.

General	Finding B3
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<ol style="list-style-type: none"> Consequent upon the CARs and CLs raised by the DOE on the appropriateness of using equity IRR as financial indicator having regard to the fact that the project has been funded by both equity and debt, the financial indicator has been changed to project IRR. This is the most conservative benchmark. Subsequently, the benchmark has been revised and the RBI PLR has been taken as the benchmark which is 13%. The most recent data at the time of decision making is now included in the prevailing practice under section B.5 of the revised PDD. The technological barrier has now been removed from the PDD.
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ol style="list-style-type: none"> The PP has now appropriately calculated the project IRR in line with the data applicable at the time of decision making. Furthermore, since project IRR is used as the financial indicator, the raised corrective action request under para-1 of finding B.3 is no more applicable. The DOE checked and confirms that the most applicable data (Table³ : Break-up of total installed capacity as on 31/12/2007) at the time of decision making (2008/03/01) has been included by the PP in the revised PDD under section B.5. Since, the PP has removed its comments under technological barrier; the raised corrective action request under para-3 of finding B.3 is no more applicable. <p>The Corrective Action Request raised under finding B3 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B4
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Under section B.6.1 of PDD, a brief write up with reference to latest applicable "Tool to calculate the emission factor for an electricity system" in the calculation of operating margin emission factor is requested.</p> <p>The formula to calculate the simple OM emission factor and build margin factor needs to be stated with appropriate notations. Furthermore, the computation of CM is incorrect.</p>

³ <http://indiabudget.nic.in/es2007-08/chapt2008/chap92.pdf>

General	Finding B4
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The entire section B.6.1 of the PDD is now revised to address the above mentioned CAR. Furthermore, the CM is now revised in line with the "Tool to calculate the emission factor for an electricity system" version 02. Furthermore, after the calculation of the emission factor the same is rounded down till third decimal resulting in the emission factor as 905 tCO₂/MWh. Please refer to the revised version of the PDD for further calculation.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>OK, the PP has incorporated the formula to calculate the simple OM emission factor and build margin factor by stating appropriate notations in line with "Tool to calculate the emission factor for an electricity system" version 02. Furthermore, the computation of CM is corrected and incorporated under revised emission reduction sheet.</p> <p>The Corrective Action Request raised under finding B4 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p>

General	Finding B5
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Under section B.6.3 of PDD, total emission reductions of 11431 tCO₂/yr are incorrect for the year 2009/10.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>This has been addressed in the revised version of PDD and Emission reduction excel sheet. The emission reductions are addressed from April 2011 till March 2021.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Accepted. The DOE has checked the emission reductions in the revised emission reduction sheet and finds the same as accurate and in line with the expected date of registration. The emission reductions are estimated accurately over the entire crediting period (fixed crediting period of 10 years).</p> <p>The Corrective Action Request raised under finding B5 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p>

General	Finding B6
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Under section B.7.1 of PDD, mention the industry standards referred or procedures adopted for measurement however fails to define them.</p> <p>The roles and responsibilities of monitoring personnel needs to be addressed.</p> <p>Accuracy and calibration procedure needs to be stated under section B.7.1.</p> <p>During site visit, it is observed that apportioning of the generated electricity is done at the common bulk meter which incorporates parameters like</p> <p>A) Total net electricity supplied to the grid (by all WTGs connected to the substation) measured at the substation.</p> <p>B) Total electricity generation by WTGs owned by PP.</p> <p>C) Total electricity generation by all WTGs connected to the substation feeder.</p> <p>The same is missing in the PDD.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The roles and responsibility of the monitoring personnel is now defined in the section B.7.2 of the PDD.</p> <p>Accuracy Class of the main meter and check meter is now included under section B.7.1 of the revised version of PDD.</p> <p>The PP has incorporated parameters like under section B.7.1 of the revised PDD</p> <ol style="list-style-type: none"> 1. Net Electricity exported to the grid by the Project Activity. 2. Electricity generation by WTG/s owned by SPD (either individual or group) 3. Total electricity generation by all the WTGs connected to the common bulk meters 4. Total net electricity supplied to the grid measured at the substation by common bulk meters (main and check meter).

General	Finding B6
<p>DOE Assessment #1</p> <p><i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>OK, the PP has incorporated all necessary corrections under section B.7.1 and B.7.2 in the revised PDD.</p> <p>The DOE checked and confirms that the roles and responsibility of the monitoring personnel is now appropriately defined under section B.7.2 of the PDD.</p> <p>The DOE checked and confirms that the accuracy class of the main meter and check meter is now included under section B.7.1 of the revised version of PDD.</p> <p>The DOE checked and confirms that the PP has incorporated monitoring parameters corresponding to the apportioning logic under section B.7.1 of the revised PDD. Furthermore, minor corrections in the write-up of the apportioning logic is included under section B.7.2 of PDD to further enhance the accuracy of the description of the apportioning logic.</p> <p>The Corrective Action Request raised under finding B6 has been CLOSED.</p>
<p>Conclusion</p> <p><i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the first periodic verification</p> <p><input type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p>



General	Finding B7		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ol style="list-style-type: none"> 1. The generation assumed should machinery supplier guaranteed generation or the PLF recommended by MERC, whichever is higher. 2. From the PDD (as well as PPA), it appears that only 7 windmills commenced generation – 3 on 31.3.2009 and 4 on 1.4.2009. But projections have been given for 9 windmills from 31.3.2009. Generation, revenue and the cost computation should be consistent with the commencement of WEGs. 3. Provision of O&M cost does not appear to be correct. As the 3 WEGs were commissioned on 31.3.2009 and 4 on 1.4.2009, no O&M charges are payable during 2009-10 as there is one year free O&M service. The first payment will commence only in 2010-11. 4. The O&M cost considered is for 9 windmills, while only 7 windmills have been commissioned. 5. Providing full insurance premium in the first year of operation, when the windmill operated for only one day is neither in conformity with accepted accounting principles, nor acceptable 6. Amortizing land lease charges over 30 years is not acceptable as the life of the project is stated to be only 20 years vide Sec. C.1.2. 7. Though it does not affect additionality, for partnership firms, book depreciation is not normally provided as it has no significance 8. Interest calculation for the year 2011-12 does not appear to be correct. This may be checked and corrected 9. Since the generation commenced on 31.3.2009 and 1.4.2009, the cash outflow should be netted out with the cash inflow during 2008-09. 10. Sensitivity analysis may be restricted to 10% variation on either side only. 5% variation may be removed. Furthermore, O & M cost should be subjected to sensitivity analysis. 		

General	Finding B7
<p>Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details</i></p>	<p>1. The Plant Load Factor considered for the present case (i.e. 20%) is appropriate as per EB -48, annex 11, GUIDELINES FOR THE REPORTING AND VALIDATION OF PLANT LOAD FACTORS, Bullet no.3, Which states that</p> <p><i>The plant load factor shall be defined ex-ante in the CDM-PDD according to one of the following three options:</i></p> <p>(a) <i>The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval;</i></p> <p>(b) <i>The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company);</i></p> <p>For the present case sub-bullet (a) is applicable as this PLF has been provided to the Bank of Maharashtra vide Loan Application for the sanction of term loan of Rs. 15 crores.</p> <p>2. This has been addressed in the revised version of IRR excel sheet.</p> <p>3. This has been addressed in the revised version of IRR excel sheet.</p> <p>4. This has been addressed in the revised version of IRR excel sheet.</p> <p>5. This has been addressed in the revised version of IRR excel sheet.</p> <p>6. This has been addressed in the revised version of IRR excel sheet</p> <p>7. This has been addressed in the revised excel sheet.</p> <p>8. Necessary changes have been done in the revised IRR sheet.</p> <p>9. Necessary changes have been done in the revised IRR sheet.</p> <p>10. Necessary changes have been done in the revised IRR sheet.</p>

General	Finding B7
<p>DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<ol style="list-style-type: none"> 1. Since the PLF assumed is in conformity with Annex 11 of EB 48 and an acknowledged (by the bank) copy of the PLF submitted to the bank has been furnished, the explanation and the PLF assumed are accepted; CAR is closed. 2. As per PDD only 7 WEGs have been commissioned. Though the response states that it has been addressed in revised worksheet, no change has been effected. Hence the acceptance of the computation is subject to the PP furnishing the certificate of commencement of generation (evidencing the commencement of WEG on 1.7.2009) and PPA for the two WEGs. CAR is open 3. Though O&M cost has been modified, since the commencement date given in worksheet is at variance with PDD, O&M cost will need to be modified. CAR is open 4. O&M cost has been accounted for 9 windmills. This is acceptable subject to the submission of generation commencement certificate for the 2 WEGs and PPA), which are reported to have commenced on 1.7.2009. CAR is open 5. Insurance premium has been corrected. However, since the commencement date given in worksheet is at variance with PDD, insurance premium will need to be modified. CAR is open. 6. Land lease charges have been amortized over 20 years. CAR is closed 7. Book depreciation has been removed. CAR is closed 8. When only 3 WEGs were operational and that too for only 1 day in 2008-09, providing interest for the entire month does not appear to be in conformity with accepted accounting principles. Moreover, it should also be confirmed that loan amount, rate of interest, instalment amount and repayment holiday are all in conformity with sanction letter. CAR is open. 9. Cash flow has been netted. CAR is closed 10. Sensitivity analysis has been corrected. But, the results given in worksheet, do not appear to be correct. CAR is open.



General	Finding B7
<p>Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details</i></p>	<ol style="list-style-type: none"> 1. -- 2. The certificate of commencement of generation (evidencing the commencement of WEG on 1.7.2009) is enclosed. 3. The commencement dates in the worksheet and PDD is now consistent 4. The certificate of commencement of generation (evidencing the commencement of WEG on 1.7.2009) is enclosed. 5. The commencement dates in the worksheet and PDD is now consistent. 6. -- 7. -- 8. This has been addressed in the revised worksheet. All the assumptions for the loan portion are now in line with the loan sanction letter of Bank of Maharashtra dated 14/03/2009. 9. -- 10. Sensitivity analysis has been done by varying PLF and O&M cost by 10% and project cost by 5% as it represents firm cost. Worksheet and PDD has accordingly been corrected.
<p>DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<ol style="list-style-type: none"> 1. CAR was already closed 2. Certificate of commencement of generation has been furnished. CAR is closed 3. Commencement dates in the worksheet and PDD are now consistent. CAR is closed 4. Certificate of commencement of generation has been furnished. CAR is closed 5. Commencement dates are now consistent and the insurance has been considered properly. CAR is closed 6. CAR was already closed 7. CAR was already closed 8. Interest computation has been corrected. CAR is closed 9. CAR was already closed 10. Still mistake persists in the Sensitivity analysis. CAR is open

General	Finding B7
Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details</i>	10. This has been corrected in the revised IRR sheet.
DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	1. CAR was closed 2. CAR was closed 3. CAR was closed 4. CAR was closed 5. CAR was closed 6. CAR was closed 7. CAR was closed 8. CAR was closed 9. CAR was closed 10. Mistake has been corrected. Sensitivity analysis has been done by varying PLF and O&M cost by 10% and project cost by 5%. Varying project cost by 5% is appropriate, as it represents firm cost. Worksheet and PDD has accordingly been corrected. CAR is closed The Corrective Action Request raised under finding B7 has been CLOSED.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B8		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR

General	Finding B8
<p>Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i></p>	<ol style="list-style-type: none"> 1. Chronology of events given in section B.5. may be restricted to demonstrating the fulfillment of the conditions stipulated vide Annex 22 of EB 49. 2. Justifying the use of equity IRR, "because this was the measure used by the Project Proponent while making this investment decision" is not an acceptable argument PP should clarify how equity IRR is suitable for demonstrating additionality for this project activity. 3. The source for the data given vide page18 of the PDD on the PLF achieved by windmills in Maharashtra may be furnished 4. Restricting the book depreciation to 95% of the asset value, artificially creates a realizable value for assets, which does not seem to be the objective of the guidance given vide Annex 45 of EB 41 5. It may be clarified under which Section of Income Tax Act, depreciation is restricted to 95% of the value of the asset. 6. O&M cost should be in conformity O&M agreement entered into with machinery supplier. Inclusion of any cost other than O&M cost as evidenced by the O&M agreement is not acceptable 7. It may be clarified as to why the PP restricted the data analysis upto December 2005 in the computation of benchmark, when the decision was taken on 1.3.2008. It is debatable as to whether the PP can stick to the benchmark selected in 2006, as the PDD also states, "The required returns are dependent on a number of factors such as the risk in the project, the interest rate structure in the economy, likely inflation rates, to quote a few". 8. Following documents/documentary evidence should be submitted: <ol style="list-style-type: none"> a) SEB evacuation cost b) Pre-operative expenses c) O&M agreement d) Insurance premium Loan sanction letter e) Commencement of generation certificate.

General	Finding B8
<p>Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<ol style="list-style-type: none"> 1. The benefits from the CDM was one of the deciding factor for the project promoters to go ahead with the project, this is evident from the demonstration described in the section B.5 of the PDD. The promoter had ventured in the field of renewable energy in the year 2006, which is a CDM project and registered to the CDM EB, can be viewed http://cdm.unfccc.int/Projects/DB/RWTUV1229007791.61/view. For the present case the appointment of the present consultant was taken place immediately after the release of purchase order on 13/05/2008 but the due to some un-avoidable reasons which is beyond the control of Project promoters, the process took more than the anticipated time. Same has been explained in the section B.5 of the PDD. 2. CAPM is the benchmark of the project which is compared with Equity IRR. The same was considered for the previous project registered with EB and is approved by EB while registering the project. 3. The data is compiled from the Maharashtra Electricity Development Agency website which is publically available, the weblink is now included in the revised version of PDD. 4. Now the asset is depreciated to 100% of depreciable value and the excel sheet is modified accordingly. 5. Now the asset is depreciated to 100% of depreciable value and the excel sheet is modified accordingly. 6. O& M Agreement has been submitted to the DOE. 7. The PP has used the RoE calculated on 31/12/2005 as a conservative approach. The RoE calculation as on 31/12/2007 is attached for the reference. 8. Documents <ol style="list-style-type: none"> a) CA certificate is enclosed. b) Submitted c) Quote from The New India Assurance company is submitted. d) Commissioning certificate is enclosed.

General	Finding B8
<p>DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<ol style="list-style-type: none"> 1. Response has no connection to the CL. The CL requires the chronology of events to be restricted to the demonstration of the fulfillment of Annex 22 of EB 49. CL is open 2. Citing previous case as the basis for adopting equity IRR is not acceptable. PP needs to explain how equity IRR is suitable financial indicator for demonstrating the additionality of the project is in this case. Mere consideration of partners at the time of taking investment decision is not acceptable. CL is open 3. The source has been provided. CL is closed 4. Book depreciation itself has been removed. CL is closed 5. IT depreciation has been restricted to 95%, which does not appear to be correct. CL is open. 6. O&M cost is in conformity with O&M agreement. CL is closed 7. It is not known as to why only Dec, 2005 should be considered to evaluate conservativeness. It could be any period. The argument is not convincing. CL is open 8. Documentary evidence for SEB evacuation cost, O&M cost, insurance premium are acceptable. Documentary evidence for Pre-operative expenses is not acceptable. The loan sanction letter and commencement of generation certificate have not been enclosed. CL is open
<p>Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details</i></p>	<ol style="list-style-type: none"> 1. The chronology of events has been suitably modified and gives only those activities which are relevant to prove the parallel action of implementing the project and getting the project registered as CDM activity 2. Since the financial indicator has been changed to project IRR, suitable changes have been made in the revised PDD. 3. CL is closed 4. CL is closed 5. IT depreciation has been corrected. 6. CL is closed 7. Apropos to the change in the financial indicator, the benchmark has also been changed to PLR and suitable changes have been made in the revised PDD. 8. Pre-operative expenses has been removed from the worksheet. Loan sanction letter and commissioning certificate for the all the WTGs are enclosed.

General	Finding B8
<p>DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<ol style="list-style-type: none"> 1. The first CL has not been responded to and the PDD write up remains unaltered. CL is open 2. Since project IRR has been used, CL is closed 3. CL was closed 4. CL was closed 5. IT depreciation has been restricted to 95%, which does not appear to be correct. CL is open 6. CL was closed 7. Financial indicator has been changed to commercial lending rate, which is more conservative. CL is closed 8. Documents have been submitted. CL is closed 9. Worksheet 'Ahmednagar with CDM' contains negative tax shield. Should be corrected 10. Clarify why for the year 2029-30, there is no revenue, but only expense. The mistake should be rectified 11. Clarify how the CDM revenues were considered essential to overcome the investment barrier to this project activity, in particular that the benchmark represents a rate below which the investment could not be made 12. Furnish the basis for the CER price and exchange rate assumed
<p>Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details</i></p>	<ol style="list-style-type: none"> 5. This has now been corrected in the revised IRR sheet. 9. This has now been corrected in the revised IRR sheet. 10. This has now been corrected in the revised IRR sheet. 11. Since the project IRR with CDM benefits cross the benchmark, it proves that the CDM benefits are imperative and the investment would not have taken place without CDM revenue consideration 12. References for the CER price and exchange rate has been included in the IRR sheet .

General	Finding B8
DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ol style="list-style-type: none"> 1. PDD has been corrected; CL is closed 2. CL was closed 3. CL was closed 4. CL was closed 5. IT depreciation has been corrected. CL is closed 6. CL was closed 7. CL was closed 8. CL was closed 9. Worksheet has been corrected; CL is closed 10. Worksheet has been corrected appropriately; CL is closed 11. Explanation on CDM benefits and its impact on project's financial attractiveness is accepted. CL is closed 12. Reference has been furnished. CL is closed <p>The Clarification Request raised under finding B8 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B9
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR

General	Finding B9
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ol style="list-style-type: none"> 1. IT depreciation has been provided on 7 WEGs in 2008-09, while as per PDD only 3 WEGs commenced generation on 31.3.2009 and 4 WEGs on 1.4.2009. This does not seem to be in conformity with IT Act. 2. Evacuation deposit accounting does not appear to be correct in as much as 2 WEGs were commissioned in July 2009 and hence the refund of their evacuation deposit will not commence in 2009-10, but 2010-11. This should be checked and mistake, if any, should be rectified. 3. The PP needs to substantiate how it has fixed the Ex-ante plant load factors. (Cp. Guidelines for the Reporting and Validation of Plant Load Factors, Version 01, EB 48)
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<ol style="list-style-type: none"> 1. Seven WTGs were commissioned in the FY 2008-09. Rest of the WTGs was commissioned on 01/07/2009. The commencement dates in the worksheet and PDD is now consistent. 2. This has been rectified in the revised version of work sheet. 3. The Plant Load Factor considered for the present case (i.e. 20%) as per EB -48, annex 11, Bullet no.3,(a). For the present case sub-bullet (a) is applicable as this PLF has been provided to the Bank of Maharashtra vide Loan Application for the sanction of term loan of Rs. 15 crores.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ol style="list-style-type: none"> 1. Worksheet and PDD are consistent. CAR is closed 2. Evacuation deposit is now accounted properly. CAR is closed 3. The PLF is in conformity with the PLF submitted to the bank and hence conforms to Annex 11, EB 48. CAR is closed <p>The Corrective Action Request raised under finding B9 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B10
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR

General	Finding B10
<p>Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i></p>	<ol style="list-style-type: none"> 1. Deration has been provided for only 3 WEGs. It may be confirmed that deration is not needed for the remaining 6 WEGs. 2. Equity beta has been used to estimate the risk of the project. In this context, it may be clarified as to how the equity beta represents the risk of the project type, as it does not seem to represent only risk of the project type. 3. Besides weighted average YTM of G-secs., interest rate on deposits (>1 year) has also been used as proxy for Rf. It may be clarified whether bank deposits are risk free. If the answer is in negative, deposit rate may be removed 4. PP may clarify how a return of 16.95% 17.05%, 21.88% ad 21.99% can be considered conservative as compared to the ROE of 16% recommended by MERC. 5. If the CDM benefits were considered imperative for the viability of the project, it may be explained as to how did the project participant commit funds to the project in advance of receiving even a positive validation opinion. 6. It may be clarified how the CDM revenues were considered essential to overcome the investment barrier to this project activity, in particular that the benchmark represents a rate below which the investment could not be made. 7. The PDD under section B.5 does not provide the possible baseline scenarios.
<p>Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<ol style="list-style-type: none"> 1. This has been rectified in the revised version of work sheet. 2. As mentioned above, apropos to the CAR raised by DOE, the financial indicator has been changed to project IRR and the justification therefore has been given in the revised PDD 3. Consequent upon the change in the financial indicator, the benchmark has also been changed to PLR and the suitable changes have been incorporated in the revised PDD 4. Since the benchmark has been changed, this CL is no more valid. 5. PP had taken a calculated risk. Since the project is additional the PP was reasonably confident it would receive a positive validation and that it would get registered as CDM activity. 6. The fact that the project IRR crosses the benchmark with the inclusion of CDM Benefits proves that the investment would not have taken place without CDM benefits. 7. There are only two alternatives to the project activity has been explained under section B.5 of PDD.

General	Finding B10
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ol style="list-style-type: none"> 1. Deration has been corrected. CL is closed 2. Financial indicator has been changed and the benchmark has been changed to a more conservative PLR. CL is closed 3. Since benchmark has been changed to a more conservative PLR, CL is closed 4. Explanation is accepted. CL is closed 5. Explanation is accepted. CL is closed 6. The explanation is accepted. CL is closed 7. Under section B.5, the PP has appropriately identified the two alternatives to the project activity i.e. <ul style="list-style-type: none"> • the proposed project activity not undertaken as a CDM project activity; • no project activity, in which case equivalent amount of energy would be generated by grid electricity system through its currently operating power plants and by new capacity addition (which are mostly thermal), i.e., status quo. CL is closed <p>The Clarification Request raised under finding B10 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B11
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Clarification is requested regarding the National policies and circumstances relevant to the baseline of the proposed project activity (Cp Para 19, General guidance, Ver 12, EB41)
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	In line with the EB guidance on treatment of national policies and circumstances; the directive and the policy date for the wind power project is post 11 Nov 2001, the baseline is a fictitious scenario when this policy did not exist for decision making for the project.

General	Finding B11
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>India signed the Kyoto Protocol in August 2002 and introduced Electricity Act in the year 2003. As per directive since the policy date is post 11 Nov 2001, the baseline is a fictitious scenario and there were no Govt. policy in place to affect the baseline.</p> <p>Hence, the CL raised under finding B11 has been CLOSED.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding B12
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The PDD applies AMS I.D version-13 which is expired; therefore the applicable version of AMS I.D needs to be applied.</p> <p>Furthermore, the section A.4.5 of PDD applies "Compendium of guidance on the debundling for SSC project activities", Version 02, EB 46 which is not in line with the recent "Guidelines on assessment of de-bundling for SSC project activities" EB 54,</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The PDD is revised with version 16 of AMS I.D.</p> <p>The section A.4.5 is updated with "Guidelines on assessment of de-bundling for SSC project activities" EB 54</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>OK, the PDD is appropriately updated with version 16 of AMS I.D.</p> <p>OK, the PDD section A.4.5 is updated with "Guidelines on assessment of de-bundling for SSC project activities" EB 54, Annex-13.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding C1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Under section C.2.2.1 of PDD, the PP needs to provide reasonable starting date of crediting period</p>

General	Finding C1
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The PP has corrected the start date of the crediting period as 2011-04-01 or or date of registration which ever is later under the section C.2.2.1 of PDD.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The PP has selected appropriate start date of the crediting period under section C.2.2.1 of PDD. The Corrective Action Request raised under finding C1 has been CLOSED.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

General	Finding E1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Under section E.1 of PDD, the stakeholders meeting held was on very short notice to address any comments by stakeholders. Hence the meeting seems to be an eyewash for the sake of local people without a genuine intention of reaching out to people. The PP has claimed medical benefits for the stakeholders, substantiation on same is requested.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Invitation letter were sent to the concerned stakeholders on 25/01/2009, subsequently on 5 th February 2009 advertisement was published in the local news paper (Dainik nagar times). The meeting was held on 10/02/2009, so there was enough time for the stakeholders to raise their comment. Moreover, following documents has been submitted to the DOE. <ol style="list-style-type: none"> 1. Stakeholder's invitation letter. 2. Advertisement in the local News paper. 3. Pamphlet of the present project activity. 4. Questionnaire duly filled by the concerned stakeholders 5. Minutes of the meeting. The project was explained to the stakeholders and questionnaire was distributed among the stakeholders and their concern on the project was documented by means of questionnaire. The PP has deleted the claim regarding the improvement of medical facilities.

General	Finding E1
<p>DOE Assessment #1</p> <p><i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>The DOE has checked and found that the PP has appropriately modified the argumentation under section E of revised PDD. The DOE further confirms that it is in receipt of the supportives like invitation letter dated 2009/01/25, advertisement published in the local news paper (Dainik Nagar Times) on date 2009/02/05, Pamphlet of project activity.and questionnaire duly filled by the concerned stakeholders and minutes of the meeting</p> <p>Thus, the DOE confirms that PP has appropriately undertaken the stakeholders meeting by adopting the appropriate means of communication and provided the stakeholder sufficient time before the stakeholder meeting was held.</p> <p>Since, the PP do not claim the improvement of medical facilities, the finding has lost its relevance.</p> <p>The Corrective Action Request raised under finding E1 has been CLOSED.</p>
<p>Conclusion</p> <p><i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the first periodic verification</p> <p><input type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p>

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Participation

LOA

Letter of Approval (HGA) No. 4/9/2009-CCC, dated 2009-07-17 issued by Indian DNA National CDM Authority under Ministry of Environment & Forests confirmed the voluntary participation of M/s Shah Promoters & Developers as Project Participant in the CDM project activity. Nevertheless in the Host Government Approval it is stated that project proponent has to comply with the following conditions:

- M/s Shah Promoters & Developers shall not sell the CERs to any agency/ company/ organization which purchase the CERs using ODA Funds.
- M/s Shah Promoters & Developers shall inform the national CDM Authority regarding all transaction details of CERs including the name and address of the party to which CERs were sold within 30 days of transfer of the CERs
- M/s Shah Promoters & Developers shall furnish expeditiously any information, during the lifetime of the project as requested by the National CDM Authority.
- M/s Shah Promoters & Developers shall obtain all statutory clearances and other approvals as required from the competent authorities for setting up of the project
- All transaction shall be subject to supervision of the Executive Board of the CDM, under the authority and guidance of the COP/MOP
- This approval is not transferable. The authority reserves the right to revoke the Host Country Approval if the conditions stipulated in this approval are not complied with to the satisfaction of the National CDM Authority.

Furthermore, the DOE has verified the project title as mentioned in the HGA with the web hosted PDD and found the same are matching with each other.

An Annex-I party will be identified by the project participant in due time, as per the post registration involvement by Annex I party provisions (no. 57) made in 18th EB meeting.

Project Participants

The DOE checked and confirms that M/s Shah Promoters & Developers is the PP for the project activity^{/HGA/, /PO/, /SC/, /PPA/} and has been consistently reported in the PDD.

5.1.2 Contribution to Sustainable Development

Letter of Approval (HGA) No. 4/9/2009-CCC, dated 2009-07-17 issued by Indian DNA National CDM Authority under Ministry of Environment & Forests confirms that the CDM project activity contributes to sustainable development in India.

5.1.3 PDD editorial Aspects

The PDD is applying the latest PDD template (Version 03⁴) and the latest version of the guideline (Version 05⁵).

5.1.4 Technology to be employed.

During the site visit on date 2009-06-12, TÜV NORD checked and confirms that WTG's are Enercon E-53 (800 kW) ^{/PO, PRO/} model, which use the state of art technology developed by Enercon. The technology employed by the project activity is well established and available in India; hence technology transfer to host country is not involved.

The technology used is environmentally safe and sound^{/PRO/}. Also, according to host government (India) EIA is not required for windmills as harnessing wind power through windmills is considered environmentally safe and sound.

5.1.5 Small Scale Projects

TÜV NORD confirms that the project is within the threshold limit of SSC type. This has been verified by checking documents^{/PO/, /SC/, /PPA/}. The DOE checked all the applicability conditions as stipulated under the methodology and concludes that the PP correctly applied methodology i.e. AMSID version 16.

TÜV NORD has checked and confirms that the PP has appropriately applied "Tool to calculate the emission factor for an electricity system" version 2 for the calculation of emission reduction from the project and substantiated that the project is not a de-bundled component of large scale project through application of applicable "Guidelines on assessment of de-bundling for SSC project activities" EB 54, Annex-13 after satisfactory closure of finding B12.

Furthermore, the PP has applied the UNFCCC simplified modalities seek to establish additionality of the project activity as per Attachment A to Appendix B, (Version 07: 28 November 2005) for additionality determination which also refers to Additionality Tool (Version 05.2).

⁴ http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html

⁵ http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid02.pdf

Thus, TÜV NORD confirms that the PP has applied appropriate methodology (AMS I.D Version-16) and all methodological tools available at the time of submission of the project activity to UNFCCC after satisfactory closure of finding B12.

5.2 Project Baseline, Additionality and Monitoring Plan

5.2.1 Application of the Methodology

PP has applied valid version AMS I.D Version-16 as a baseline and monitoring methodology after closure of finding B12. Furthermore, after the closure of finding B12 the PP has applied valid, approved and latest available tools and guidance at the time of submission of project activity to UNFCCC in the revised PDD (also refer Assessment made under section 5.1.5 of report).

TÜV Nord also confirms that the project activity fulfils all the applicability criteria of the applied methodology (AMS I.D Version-16). The applied baseline and monitoring methodology covers the entire baseline emissions resulting from the project activity. There are no project and leakage emissions envisaged from the project activity. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.2 Project Boundary

After closure of finding B12 the PP has revised PDD in line with AMS I.D Version-16. The project boundary comprises the physical, geographical site of the renewable generation source. The project boundary includes the WTGs, integrated NEWNE regional grid and substations of the project. As the power plant evacuates the power to the NEWNE Grid all the power plants contributing electricity to the NEWNE Grid are part of system boundaries. TÜV NORD has assessed and found that PP has correctly addressed the project boundary under section B.3 of the PDD (refer closure of finding B12). For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.3 Baseline Identification

The project activity is grid connected renewable energy generation through wind turbines. The purpose of the project activity is to generate electricity through renewable resources (wind) and displace equivalent amount of electricity in the Integrated NEWNE grid which is predominantly fossil fuel based. The selected

baseline methodology is approved methodology for small scale “Grid connected renewable electricity generation” (AMS-I.D: Version 16).

The selected baseline methodology, i.e., AMS-I.D is correctly applied to this type of grid connected renewable generation by wind. Paragraph 10 of the approved methodology applies to this project activity, which states that: “If the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources.”

The para 11 of the methodology further states that the baseline emissions are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor.

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

Where:

BE_y	Baseline Emissions in year y (t CO ₂)
$EG_{BL,y}$	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh), in the PDD expressed as EG_y
$EF_{CO_2,grid,y}$	CO ₂ emission factor of the grid in year y (t CO ₂ /MWh) , in the PDD expressed as EF_{CM}

Paragraph 12 of the approved methodology applies to this project activity, which states that the Emission Factor can be calculated in a transparent and conservative manner as follows:

a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the ‘Tool to calculate the Emission Factor for an electricity system’.

OR

b) The weighted average emissions (in t CO₂/MWh) of the current generation mix. The data of the year in which project generation occurs must be used.

For the project activity, baseline emission reductions have been estimated using combined margin emissions according to the procedures prescribed in the approved methodology (in tCO₂e/GWh) of the current generation mix, using the most recent statistics available at the time of PDD submission (Paragraph 12, sub point (a)) and applying “Tool to calculate the emission factor for an electricity system” Version 02, EB 50, Annex-14.

Furthermore, in line with the methodology as defined in the clarification SSC 065: “If the Project Proponent decides to use option a), the calculation should be done ex-

ante at the start of the crediting period. The estimation of emission reductions, needed for completing the PDD for registration could be done with the last available information at the time of the PDD submission.”⁶

The ex-ante emission coefficient has been calculated based on the baseline information of the Integrated NEWNE grid provided in B.6.1 of the PDD. The validation team has checked the underlying input values as well as the spreadsheet programming. As a result of this check the validation team is convinced of the results of the emission coefficient calculation and the chosen value. According to the CO₂ Baseline Database⁷ (Version – 4.0, October 2008) published by CEA the ‘Combined Margin Emission Rate (tCO₂/MWh) (incl. Imports)’ is considered. The resultant figure of 905 tCO₂/GWh is deemed to be adequate, transparent as well as conservative.

During the course of validation TÜV Nord has raised a clarification request under finding B1, B10 and B11 and corrective action request under finding B4. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.4 Calculation of GHG Emission Reductions

The calculations are done in line with the applied methodology (Please refer finding B12 for more details on the applied methodology). The data is correctly monitored in the revised PDD after the closure of the raised CAR (please refer finding B5). The monitored parameters can be cross checked with each other hence they act as plausible parameters w.r.t each other. Since all the values are monitored, estimated emission reductions are deemed to be plausible and conservative.

During the course of validation TÜV Nord has raised a corrective action request under Finding B5 and B12. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.5 Additionality Determination

Consideration of CDM in decision making (if project start before validation)

The project developer has stated the start date of the project activity is March 20, 2008^{PO/} and has submitted a copy of the purchase order for the WTGs released to M/s Enercon (India) Ltd. as evidence. The project developer has not undertaken any construction or any real action on the implementation of the project activity prior to this date. Since the *real action of the programme activity* had begun on March 20,

⁶ http://cdm.unfccc.int/UserManagement/FileStorage/AM_CLAR_PMFHRF0B1LD9C1HNOY2BSCFT2IRYU2

⁷ <http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm>

2008^{/PO/}, as per Glossary of CDM terms (Version 05), this date has been treated as the start date of the project activity. The PDD was web-hosted for public comments on April 22, 2009, i.e., after the start date of the project activity.

Since the start date of the project activity was before 2nd August 2008 and the start date was prior to the date of the publication of PDD for global stake holders' consultation, the project developer was asked to demonstrate the serious consideration of CDM while taking the decision to implement the project activity as required by Annex 22 of EB 49.

Project developer informed the Validation Team that they were aware of CDM benefits as they already have a project registered as CDM activity. PDD states that the very fact that the Partners' resolution considers CDM benefits proves that the CDM benefits were the decisive factor in going ahead with the project. This fact was confirmed during the personal interview also. In support of this contention, PP also submitted a certified copy of the Partners' Resolution dated March 1, 2008, wherein the Partners, who are the only competent and authorized people to take a decision on setting up of this project activity, had resolved that the CDM benefits are imperative to take up the implementation of the project activity. The resolution states, "In the light of above , the Partners have decided to set up a new 7.2 wind power project in the State of Maharashtra. However, returns from the project are not adequate to justify this investment. The Partners based on their experience in the past 14 MW wind power project, which is in the process of availing CDM funds feel confident that revenue from CDM can make the project viable as well as sustain it."^{/MD/}. Thus, the Partners' resolution clearly states that the CDM benefits were decisive factor in the decision of the management to go ahead with the investment in the project.

Project developer had also submitted a chronology of events in the project activity, which forms part of Section B5 of PDD. It could be seen there from that Board took the decision to go ahead with the project in March, 2008; CDM Consultant was appointed on May 2008; local stakeholders' meeting was held in February 2009; DOE was appointed in February 2009 and HCA^{/HGA/} was obtained in July 2009. The gap between any two CDM activities is less than one year- one of the requirements of Annex 22 of EB 49.

Since the fulfillment of both the conditions stipulated vide paragraphs (6) and (8) of Annex 22 of EB 49 have been demonstrated with documentary evidence, Validation Team concludes that *there was a prior consideration of CDM; CDM benefits were decisive factor in the decision making and that continuing and real actions were taken to secure CDM status for the project activity.*

Application of methodology / methodological tools

The project is small scale in size. Therefore, in accordance with § 28 of the simplified modalities and procedures for small-scale CDM project activities, the additionality of

the project activity has been demonstrated using *Attachment A to Appendix B* (additionality tool for small scale project activities) and Guidance given vide Annex 58 of EB 51. As all requirements specified vide § 28 of the simplified modalities and procedures are complied with by the project activity, this approach has been assessed to be appropriate for the additionality assessment for this project activity.

Project developer had chosen investment barrier and to demonstrate the investment barrier had selected benchmark analysis and project IRR as financial indicator. Having regard to the fact that the project involves investment and is funded by a mix of debt and equity, project IRR is the most suited for the project type and decision making context. Since in this instant case, as subsequent section would reveal, baseline is outside the direct control of the project developer (grid connected power) and hence, the choice of the project developer is restricted to 'invest or not to invest', the benchmark approach is most suited as per Guidance 16 of Annex 58 of EB 51.

In the above background Validation Team concludes that the additionality justification given by the project developer is in accordance with the requirements derived from the approved CDM methodology and the methodological tools referred therein and also confirms to the guidance given by EB vide para 109 and 110 of VVM (01.2).

Alternatives

This is a wind energy project and is based on the Methodology AMS I-D Ver. 16, which does not specify alternatives. Moreover, Sub-step 1a of Additionality Tool Ver 05.2 states⁸, "...a coal-fired power station or hydropower may not be an alternative for an independent power producer investing in wind energy Alternatives are, therefore, related to technology and circumstances as well as to the investor". Therefore, there are only two alternatives to the project activity, viz.,

- a) the proposed project activity *not undertaken as a CDM project activity*;
- b) *no project activity*, in which case equivalent amount of energy would be generated by grid electricity system through its currently operating power plants and by new capacity addition (which are mostly thermal), i.e., *status quo*.

Both the alternatives are in compliance with all applicable legal and regulatory requirements as

- the implementation of project activity is a voluntary initiative and is not mandatory or a legal requirement;
- the Electricity Act 2003 does not restrict or empower any authority to restrict the fuel choice for power generation;
- the applicable environmental regulations do not restrict the use of wind energy;; and
- there is no legal requirement on the choice of a particular technology.

⁸ See footnote vide p.4 of Tool for the Demonstration of Additionality

However, of the two alternatives identified, alternative (i) cannot be considered realistic as further analysis in the following paragraph reveals that it faces barriers. Hence, alternative (ii) alone could be justified as realistic, credible and plausible alternative to the PP. However, this alternative would result in higher GHG emissions.

Validation Team is, therefore, convinced that the project developer has taken into consideration all realistic and credible alternatives (having regard to the governing methodologies) including the project being undertaken as a non-CDM activity and continuation of current scenario. Thus, the validation team has taken into consideration the guidance given by EB vide paragraph 104 of VVM

Investment analysis

In order to assess the claim of the project developer that the project scenario is not economically feasible without benefits from CER sales, Validation Team adopted a six-pronged strategy, viz.,

- a) determining the suitability of the investment analysis, benchmark applied and the suitability thereof to the type of financial indicator presented;
- b) conducting an assessment of parameters and assumptions used in calculating the financial indicator and determining the accuracy and suitability of parameters;
- c) cross-checking the parameters against third-party or publicly available sources;
- d) reviewing annual financial reports related to the project participant;
- e) assessing the correctness of computations carried out and documented; and
- f) subjecting the critical assumptions of the project activity to reasonable variations to determine under what conditions variations in the result would occur, and the likelihood of these conditions.

a) Suitability of investment analysis, financial indicator and benchmark: Project developer had demonstrated that the financial returns of the proposed CDM project activity would be insufficient to justify the required investment. For demonstrating the financial unattractiveness of the project activity, project developer had chosen investment barrier and to demonstrate the investment barrier had selected benchmark analysis. Since in this instant case, as subsequent section would reveal, baseline is outside the direct control of the project developer (grid connected power) and hence, the choice of the project developer is restricted to “invest or not to invest”, the benchmark approach is most suited as per the latest version of Guidance 16 of Annex 58 of EB 51.

In the above background Validation Team concludes that the additionality justification given by the project developer is in accordance with the requirements derived from the approved CDM methodology and the methodological tools referred therein as well as the guidance given by EB vide paragraphs 106-108 of VVM.

The project developer had originally chosen equity IRR to demonstrate the additionality of the project. Since the project is financed by a mix of debt and equity, clarification was sought on the appropriateness of using equity IRR as financial indicator. Based on the CAR raised, project developer modified the financial indicator to project IRR. Use of project IRR to demonstrate additionality has been considered appropriate having regard to the financing pattern of the project activity. Moreover, Guidance 12 of Annex 58 of EB 51 and Additionality Tool (Ver. 05.2, which is the latest) permit the use of project IRR as financial indicator for demonstrating the additionality using benchmark analysis. The selection of project IRR as financial indicator is appropriate for the project type and decision making context and also conforms to the guidance given vide Annex 58 of EB 51.

Apropos to the selection of equity IRR as financial indicator, project developer had selected expected/required return on equity as benchmark. Clarification was sought on the appropriateness of the benchmark considered and the calculation. However, consequent upon the change in the financial indicator, the project developer had also modified the benchmark. Additionality tool (ver.05.2) states that the discount rates and benchmarks shall be derived from "Government/official approved benchmark, where such benchmarks are used for investment decisions"⁹, among others. However, it is imperative that the benchmark selected should be *suitable* for the *type* of financial indicator presented. Guidance on the Assessment of Investment Analysis (Ver 02) states, "*Local commercial lending rates or weighted average costs of capital (WACC) are appropriate benchmarks for a project IRR*"¹⁰. The project developer has chosen the Prime Lending Rate (PLR), which is the commercial lending rate, as the benchmark. Since the PP has chosen project IRR as financial indicator, selection of PLR as benchmark conforms to Guidance 12 of Annex 58, EB 51. At the time of decision making the PLR (evidenced by publications by the Reserve Bank of India) ranged between 12.75% and 13.25%. PLR represents the commercial lending rate of banks. Therefore, the PLR as benchmark conforms to guidance 12 of Annex 58, EB 51. Moreover, since the PLR is publicly available and can be validated by TÜV NORD, it also conforms to guidance 13 of Annex 58, EB 51. PP has chosen the mid rate of 13% as benchmark return¹¹. This benchmark satisfies the conditions stipulated in the Additionality Tool in as much as this rate is publicly available (which satisfies Guidance 13 of Annex 58 of EB 51) for validation by TÜV NORD and this rate is being used by the commercial bank to take financing decisions, in that if the

⁹ Tool for the demonstration and assessment of additionality (Version 05) p.7

¹⁰ Annex 45 of EB 41, Guidance on the Assessment of Investment analysis, p.3, item 11

¹¹ <http://rbidocs.rbi.org.in/rdocs/Wss/PDFs/83304.pdf>. The PLR is sourced from the Weekly Statistical Supplement (February 29, 2008) issued by the Reserve Bank of India, which was available to the PP at the time of decision making (i.e., March 1, 2008). PLR ranged between 12.25-12.75% in the week ended March 7, 2008 – the mid rate being 12.50%. The project remains additional even if this range is taken as the benchmark (as the project IRR is only 11.14%).

project activity is unable to service the loan at the stipulated rate of interest (13%), the project activity would not be eligible for financial assistance. The modified benchmark of 13% is also conservative to the benchmark given in the web-hosted PDD. *Therefore, the Validation Team concludes that the benchmark selected by the project developer is suitable for the type of financial indicator selected and it is reasonable. Considering the fact that the financial indicator exceeds the benchmark with CDM benefits, it is reasonable to assume that no investment would have taken place at a return lower than the benchmark. Therefore, the selected benchmark is appropriate and conforms to the Additionality Tool as also paragraph 110 of VVM.*

b) Parameters and assumptions used: The three important parameters, which determine the project IRR of the project, are project cost, financing pattern, and profitability estimates.

The project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning cost. All these costs are based on purchase orders, copies of which have been submitted to TÜV-NORD for validation. There has been no difference between the cost given in the quotation/offer letter (based on which the decision is taken) and the purchase order. Hence, the cost considered in the computation of financial indicator conforms to guidance 6 of Annex 58, EB 51. The project cost works out to Rs.56 mn. per MW in contrast to Rs.40 mn./MW recommended by MERC in November 2003. Though the cost considered by PP is in conformity with other wind energy projects validated by TÜV NORD, since it is higher than MERC recommended cost, Validation Team sought clarification on this aspect. PP informed during the personal discussion a careful study of the MERC Order would reveal that while the cost has been assumed at Rs.50 mn. for projects set up till 30.3.2003, the cost has been considered at Rs.40 mn., which appears to be an anomaly despite the reasoning given therein. It was also pointed out that TNERC Order - released after MERC Order - in May 2006 assumed a cost of Rs.50 mn. The PP also submitted the Purchase Orders and a certificate from the Chartered Accountant (CA) evidencing the payment released to the machinery supplier. As per the CA certificate, the total investment made in the project has been of the order of Rs.403.mn. Taking into consideration all these factors and based on the local and sectoral expertise, the Validation Team concludes that the project cost is appropriate, reliable, was valid at the time of decision making, and therefore accepted the project cost.

The financing pattern yields a gearing of 37:63, which is based on *actual loan sanctioned* to the project activity by the banks. In India, wind power projects get loan between 70 and 80% of the project cost and in exceptional cases a much higher debt equity ratio is also permitted by banks. MERC itself recommends a debt equity ratio of 70:30 for wind energy projects. At times, depending on the cash availability, PP seek lower debt equity ratio and this project represents such a typical case, where the PP has sought a lower debt equity ratio. Project developer has submitted a copy of the loan application and also the sanction letter, which evidences that the project developer had sought for and obtained loan of Rs.150 mn. yielding a debt equity ratio of 37:63. Therefore, the validation team is convinced that the financing pattern assumed is appropriate and correct.

Financing pattern envisages a debt component of Rs.150 mn. – about 37% of the project cost. The loan component and the rate of interest are based on the loan application submitted by the project developer to the bank (which obviously formed the basis for investment decision) and is also evidenced by the loan sanction letter received subsequently. Since the actual interest payable by the project activity is taken into consideration, this is also in conformity with guidance 11 of Annex 58, EB 51. Project IRR goes up marginally to 11.19% from 11.14% if the then prevailing rate of interest of 13% (as evidenced by the PLR) is taken into account. However, it may be stated that till July 1, 2010, sub-prime lending is a normal and acceptable phenomenon in the country for reputed clients.

The profitability estimates of the project, which forms the basis for IRR calculation is based on installed capacity, PLF, power tariff, O&M cost, interest¹², depreciation, taxation. The installed capacity is a computed figures based on the capacity of wind mills, which is evidenced by the quotation/purchase orders.

Plant load factor is based on the loan application submitted by the project developer to the bank (which obviously formed the basis for investment decision), which in turn is based on the MERC recommended PLF. However, Annex 11, EB 48 requires the plant load factor to be defined ex-ante according to one of the following three options:

- (a) The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval;
- (b) The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company).

Project developer has submitted a copy of the application submitted to the bank (which obviously formed the basis for investment decision), duly acknowledged by the bank, which confirms that the PLF of 20% formed the basis in sanctioning the term loan of Rs.150 mn. to the company. Moreover, MERC, after exhaustive study of wind pattern and velocity, has recommended PLF of 20% for windmills located in Maharashtra. Validation team also observed that the project achieved PLF of only 16.64% during the one year period ended March 2010. Since the PLF conforms to the requirements of Annex 11, EB 48, recommended by MERC and the actual achievement has been lower, the PLF is considered suitable and conservative (from additionality demonstration point of view) for the project activity.

Wind turbine generators become prone to frequent repairs and maintenance problems as the time progresses resulting in decrease in generation. Recognizing this problem, MERC in its order dated November 2003 approved one time derating by 5% in the 11th year of operation. Since this project is located in Maharashtra validation team considers the derating appropriate. In this context it may be stated

¹² Loan amount and terms are based on actual loan sanction letter

that even if the derating is removed, the project would remain additional, in that the project IRR would go upto 11.40% from 11.14% in contrast to the benchmark of 13%.

The tariff is based on the MERC Order which was released on November 2003 (and hence available at the time of decision making), which is evidenced by the PPA entered into subsequently. .

O&M cost is based on the quotation/Purchase Order. As stated above, there has been no difference in the O&M cost between the quotation, purchase order and actual O&M agreement entered into subsequently. Insurance forms very negligible amount of project cost and is based on the enquiry by the project developer with insurance companies and the project developer had also evidenced it by insurance premium receipts. Neither O&M cost nor insurance premium are critical parameters. The project developer has adopted Income Tax Act stipulated WDV depreciation for income tax calculation, which is in conformity with Tax regulations. The block of assets has been computed for depreciation purpose as per the accepted accounting principles and ruling given. Tax liability has been calculated as per the income tax rules and the rulings given. In computing the income tax liability, the project developer has taken into account the accelerated depreciation (80%), which the project is entitled to under Income Tax Rules (Appendix I) and the Tax holiday (u/s 80IA of the Income Tax Act, 1961), which the infrastructure projects (under which the project activity falls in as much as it generated electricity) are entitled to for 10 consecutive years out of the first 15 years. The tax rate assumed corresponds to the tax rate prevailing at the time of taking decision.

Since the input parameters have been sourced from the quotations/ purchase orders, loan application / sanction letter, acts and regulations, they were valid at the time of decision making, reliable, credible and appropriate for the project activity. Thus, the Validation Team based its opinion on the guidance given vide paragraph 87, 93 and 112 of VVM.

c) Cross checking parameters: The cost of WTGs, power tariff, O&M cost, interest costs, depreciation and tax rate have been cross checked with quotations, orders, loan application and sanction letter furnished by the project developer, Income Tax Act, PPA entered into by the project developer with the Utility. The documents supporting the financial calculations, in the opinion of Validation Team, are therefore authentic and appropriate. CARs and CLs were raised on non-conformities and they were set right. With the corrections having been incorporated, the input costs considered appear to be in order. All the input parameters considered in computation, the basis, correctness and appropriateness thereof are given in Table A-3 along with Validation Team's comments. Validation, therefore, conforms to guidance given vide paragraphs 87 and 95 of VVM.

d) Financial reports of project participant: Validation team requisitioned the Annual Report of the project developer. Since the project developer is in construction business, none of the input values taken in the computation can be based on the Annual Report. However, the Validation team observed that the developer is a profit-

making firm and accordingly, the project developer has taken into consideration the tax shield enjoyed on account of accelerated depreciation as *notional cash inflow* at the present tax rate while computing IRR.

e) Assessment of correctness of computation: The assessment involved checking the data input taken from quotation/documents, adoption of correct accounting principle and arithmetical accuracy. Validation Team checked the quotation/documents and ensured that right input has been taken in the project cost and projections. In several places, the calculations were not conforming to accepted accounting principles and the laws and regulations in force necessitating CARs and CLs. Based on the CARs and CLs, corrections were incorporated. The accounting principles adopted with respect computation of interest, block of assets and tax computation were found to be in order in the corrected version presented. The arithmetical accuracy was also found to be correct.

The project IRR has been computed for a period of 20 years, which is the life time of the project and is in conformity with the Annex 58 of EB 51 and Annex 15 of EB 50¹³. As required by Annex 58 of EB 51 the expected realisation on the sale of assets at the end of the operating life has been taken as *salvage value* in the terminal year. In computing the IRR, the project developer has taken into account profit after tax, depreciation and interest on term loan, tax shield and salvage value (in the terminal year). The principle adopted conforms to the accepted accounting and taxation principles.

Based on the above, the project IRR works out to 11.14%¹⁴ in contrast to the benchmark of 13%. In the above background, the Validation Team is convinced that the project is additional and not a business-as-usual scenario.

Sensitivity analysis: The Guidance on Assessment of Investment Analysis requires the robustness of the conclusion arrived at to be proved through a sensitivity analysis by varying the critical assumptions to a reasonable variation ($\pm 10\%$). Guidance 17 of Annex 45 of EB 41 states that as a general point of departure, variations in the sensitivity analysis should at least cover a range of $+10\%$ and -10% , *unless this is not deemed appropriate in the context of the specific project circumstances*. Guidance 16 states that *all parameters varied need not necessarily be subjected to both negative and positive variations of the same magnitude*. The project developer has identified PLF, project cost and O&M cost as the most critical assumptions. Since project has already been implemented any variation in project cost is hypothetical. Therefore, in the specific project circumstances, 5% variation has been considered adequate for project cost, while PLF and O&M cost have been subjected to 10% variation. The sensitivity analysis reveals that even under more favorable

¹³ The life of the plant is based on the manufacturer's information on technical life time of the project

¹⁴ In the webhosted PDD, PP had considered equity IRR as financial indicator, while in the revised PDD, consequent upon the CARs/CLs raised, PP has changed the financial indicator to project IRR and hence the IRR is lower than the IRR given in web-hosted PDD. The two IRRs are not comparable

conditions, the IRR would not cross the benchmark return as given in the following table:

Sensitive factors	-10%	Baseline	+10%
Plant Load Factor (PLF)	9.11%	11.14%	13.04%
Project cost (5% variation)	12.31%	11.14%	10.10%
O&M cost	11.37%	11.14%	10.92%

Validation Team carried out its own an independent assessment, which reveals that the project would become *non additional* only if

- PLF goes up by 10%
- Project cost goes down by 8%
- O&M cost goes down by 88%

PP has submitted that such a reduction in project cost or increase in PLF is highly unrealistic and unlikely to happen for the following reasons:

PLF: Generation taken into consideration is based on MERC recommended PLF, which is also submitted to the bank while seeking loan. MERC has recommended the PLF after conducting an exhaustive study over a long period on the wind pattern, velocity. Hence, though in a few years, the PLF may cross 20%, to get a CUF of 22% (which a 10% hike translates to) on a sustained basis is highly hypothetical and unrealistic. That apart, none of the WEGs set up in Maharashtra have achieved a PLF¹⁵ of 20% on a sustained basis leave alone achieving 22%. Moreover, the project itself has achieved a PLF of only 16.57% in the last 12 months (for period of April 2009 to March 2010).

Project cost: As stated above, the cost taken into computation is based on quotations¹⁶ and Purchase Orders already placed. The cost, therefore, represents firm cost and as such the question of any reduction in the cost is highly unrealistic.

O&M cost: It is observed that O&M cost is not a critical factor at all in as much as only a 88% reduction in O&M cost would render the project non-additional. A 88% reduction in O&M cost, when the country is experiencing inflation at 5% is impossible.

Validation Team is in agreement with PP's submission

¹⁵ http://www.mahaurja.com/PG_WE_Overview.html [In the said site select wind power generation - 2008-09 given on the right hand side box. There are 8 worksheets. The first worksheet 'Demo' gives the PLF achieved over years and other worksheets give generation for location-wise. It may be noted from the 'Demo' worksheet that the WEGs never achieved 20% PLF on sustained basis. Wind power generation 2007-08 has been removed from the site].

¹⁶ Quotations have been submitted to TUV during validation

Having regard to the assessment of conformity of additionality demonstration and benchmark selection to the latest version of the Guidance issued by EB on the assessment of investment analysis, plausibility and appropriateness of parameters used and correctness of financial calculations, Validation Team concludes that the project scenario is not economically feasible without benefits from CER sales

Barrier analysis

Project developer did not considered barrier analysis. Hence, this is not applicable.

Common practice analysis

Project developer had only stated that generation of power using wind energy is not a common practice in Maharashtra and to prove the statement has submitted the statistics that fossil fuel based power generation still dominates the power generation. Validation Team is not very much convinced with the argument. Since it is a small scale project activity, PP is not required to demonstrate common practice barrier. As per Attachment A to Appendix B (and Annex 34 of EB 35), the project developer is required to provide an explanation to show that the project activity would not have occurred anyway due to at least one barrier out of five barriers¹⁷. Since project developer had chosen investment barrier, additionality demonstration is in conformity with Attachment A to Appendix B read with Annex 34 of EB 35.

Summary

In the above background, Validation Team concludes that the project is not a business-as-usual scenario and is additional. The CDM benefits would enable the project to become financially attractive in as much as the project IRR with CDM benefits (13.29%) would cross the benchmark (13%) and hence CDM benefits would enable the project developer to overcome the barrier.

Nevertheless, CAR raised under finding B3 (3 issues), B7 (10 issues), CL raised under finding B8 (8 issues), finding B9 (3 issues) finding B10 (7 issues) were raised and successfully closed (ref Annex: Validation Protocol).

¹⁷ While Attachment A to Appendix B lists only four barriers, viz., investment barrier, technological barrier, barrier due to prevailing practices and other barriers, Annex 34 of EB 35, had split investment barrier into two resulting in five barriers, viz., investment barrier, access to finance barrier, technological barrier, barrier due to prevailing practices and other barriers.

5.2.6 Monitoring Methodology

The monitoring methodology is in compliance with the applied methodology AMS I.D, version 16 after closure of finding B12. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.7 Monitoring Plan

The monitoring plan is in line with the methodology and covers all the parameters which are necessary for monitoring the net electricity export to the grid. The monitoring plan considers all the parameters which are monitored by the MSEDCL for carrying out apportioning to calculate the “Net Electricity exported to the grid by the Project Activity” hence it can be safely assumed that all monitoring arrangements feasible within the project design.

During the course of validation TÜV NORD has raised a corrective action request under finding B6 and finding B12. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.8 Project Management Planning

During the site visit TÜV Nord took interviews of the O & M contractor, inspected the qualification procedures, assessed the fulfilment of qualification needs and reviewed the existing monitoring logs maintained by the O & M contractor and deems the same as sufficient for monitoring all the parameters as mentioned in the PDD. Furthermore, TÜV Nord also assessed the management structure as provided in the PDD along with the various checks involved at various stages and deems the project management planning appropriate for the purpose of the projects monitoring.

5.2.9 Crediting Period

The PP has selected 10 years of fixed crediting period starting from 1st April 2011. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

During the course of validation TÜV NORD has raised a corrective action request under finding C1. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.10 Environmental Impacts

The PDD contains the project documentation and analysis of environmental impacts. EIA is not required from host country. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

5.2.11 Comments by Local Stakeholders

Under section E of the PDD, the PP has identified all relevant local stakeholders. Furthermore, the identified stakeholders were invited to comment on the project. This was evidenced from the minutes of meeting of stakeholders. The PDD also sufficiently provides summary of stakeholder comments. The PDD also mentions the responses of PP the comments of stakeholder.

During the course of validation TÜV NORD has raised a corrective action request under finding E1. For detailed assessment please refer to validation protocol under Annex-A1 of the report.

6 VALIDATION OPINION

M/s Shah Promoters & Developers has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: "Wind Energy Project in Maharashtra by M/s Shah Promoters & Developers" with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board

In the course of the pre-validation 12 Corrective Action Requests (CARs) and 07 Clarification Requests (CLs) were raised and successfully closed.

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarised as follows:

- The project is in line with all relevant host country criteria (India) and all relevant UNFCCC requirements for CDM. Project activity approval have been obtained from DNA of India vide the Letter of Approval (HGA) No. 4/9/2009-CCC, dated 2009-07-17 .
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 114160 tCO₂e are most likely to be achieved within the 10 years (fixed) crediting period at an average of 11416 t CO₂e per annum.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.

Pune, 2011-02-11



Manojkumar Borekar
TÜV NORD JI/CDM CP
Validation Team Leader

Essen, 2011-02-11



Martin Saalman
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/ADD/	<ol style="list-style-type: none"> 1. Letter from Bank of Maharashtra to PP, stating to submit project summary with CDM revenue and without CDM revenue dated 10th Jan 2009 2. SPD 's Letter along with financials of the project to Bank of Maharashtra dated 13th Jan 2009, submitted to the bank for the sanction of term loan. Proof of Plant Load Factor considered for the IRR calculation, as per EB 48, annex 11. 3. Work order dated 13th May 2008 by SPD to M/s Mitcon Consultancy 4. Table 1.88; TERI Energy Data Directory and Yearbook 2005/06; Page number 219. Table 1.98; TERI Energy Data Directory and Yearbook 2004/05; Page no 201 5. Report of the Expert committee on fuel for power generation-Page XI-CEA. 6. Declaration from Bank of Maharashtra vide letter dated AR38/ CFB/ ADV/ SPD/ 2010-11 stating that brief note of Khandke (Dist Ahmednagar) project and its financials were considered for the appraisal of the project. 7. Undertaking from the PP that brief note of Khandke (Dist Ahmednagar) project and its financials were submitted to the bank for appraisal of the project. 8. Letter issued by the HR department referencing the actual salary of the employees and the rate of increase in salary on annual basis dated 2011-01-29. 9. Letter of employment of the employees as a supportive to Administrative Expenses by SPD. 10. A brief note of Khandke project prepared by Enercon for SPD for its 9 x 800 kW project.
/ACT/	Income Tax Act, 1961
/BAL/	<ol style="list-style-type: none"> 1. Balance sheet, Trading and profit and Loss account of M/s. shah promoters & Developers, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09. 2. Chartered Accountant's certificate dated 8th October 2010 certifying the annual recurring expenditure and inflation rate of expenditure. 3. Chartered Accountant's certificate dated 28 November 2009 stating the payment status of SPD to the Technology supplier.
/CC/	<ul style="list-style-type: none"> • Certificate of Commissioning of 2 X 800 KW wind Electric Generators,

Reference	Document
	<p>issued by MSEDCL, reference number: SE/ANRC/TECH/008033 issued on date 2 Jul 2009.</p> <ul style="list-style-type: none"> • Certificate of Commissioning of 1 X 800 KW wind Electric Generators, issued by MSEDCL, reference number: SE/ANRC/TECH/04260 issued on date 31 Mar 2009. • Certificate of Commissioning of 2 X 800 KW wind Electric Generators, issued by MSEDCL, reference number: SE/ANRC/TECH/04262 issued on date 31 Mar 2009. • Certificate of Commissioning of 3 X 800 KW wind Electric Generators, issued by MSEDCL, reference number: SE/ANRC/TECH/04306 issued on date 1 Apr 2009. • Certificate of Commissioning of 1 X 800 KW wind Electric Generators, issued by MSEDCL, reference number: SE/ANRC/TECH/04305 issued on date 1 Apr 2009.
/CON/	The signed contract between TUV NORD and SPD (dated for carrying out Validation of the project activity. 2009/02/19.
/CT/	Training and competency certificates.
/HGA/	Letter Of Approval (Host Country Approval) of Indian Government (Ministry Of Environment and Forests), reference number: No. 4/9/2009- CCC dated 17 July 2009
/ICN/	Insurance quote issued by THE NEW INDIA ASSURANCE COMPANY CO. LTD. Policy number: 15260/UW/2008 on dated June23, 2008 at Khandke Site.
/IRR/	IRR Calculation sheets consisting of Investment Analysis, Return from project activity and profitability projections of the project.
/LSC/	<ul style="list-style-type: none"> • Local stakeholder consultation meeting at Sahyaradi Banglow, Opp. Mamta Gas Agency, Gulmohar road, Savedi, Ahmednagar on dated 10th Feb 2009 (Minutes of Meeting/ attendance sheet submitted) • Public notice published in the local news paper "Dainik Nagar Times" on date 5th February 2009. • Copy of invitation letters sent to local stake holders dated 2009-01-25. • Pamphlet of the present project activity. • Questionnaire duly filled by the concerned stakeholders
/MAP/	Location map: Micrositing drawing for wind farm at Ahmednagar.
/MD/	Partner's resolution for CDM, Extract from minutes of meeting of Partner of M/s Shah promoters & Developers held on 2008/03/01 at the registered office of the firm.

Reference	Document
/MOC/	Modalities of Communication
/MR/	Monthly energy reading for Ahmednagar wind farm of M/s Shah Promoters & Developers for period of April 09 to March 2010
/O&M/	<ul style="list-style-type: none"> Contract for Operating the wind farm between M/s Shah Promoters & Developers and M/s Enercon (India) Ltd. dated 20th March 2008. Routine Maintenance contract between M/s Shah Promoters & Developers and M/s Enercon (India) Ltd. dated 20th March 2008. Certificate issued by M/s Enercon (India) Ltd. Stating that there is no separate requirement for calibration of onboard WTG controller meters.
/ORG/	Organization chart of M/s Enercon (India) Ltd, O & M contractor
/PDD/	<ul style="list-style-type: none"> PDD of project activity titled “Wind Energy Project in Maharashtra by M/s Shah Promoters & Developers”, version 00, dated 2009/04/11 PDD of project activity titled “Wind Energy Project in Maharashtra by M/s Shah Promoters & Developers”, Version: 03, dated 2011/01/29 (Final Version)
/PO/	<ol style="list-style-type: none"> Purchase order for supply of 3 Nos. Enercon Make 800 KW, Type E-53, Wind Energy Converters. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Supply-C dated 20th March, 2008 Purchase order for supply of 3 Nos. steel towers. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Supply-B dated 20th March, 2008 Purchase order for supply of 3 Nos. Enercon Make 800 KW, Type E-53, Wind Energy Converters ex-work at site Khandke. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Supply-A dated 20th March, 2008 Order for civil and industrial works for 3 nos Enercon make 800 kW Type E-53 Wind Energy Converters. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Civil & Indus dated 20th March, 2008 Order for installation, commissioning and other services for 3 nos Enercon make 800 kW Type E-53 Wind Energy Converters at site Khandke. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Comm. dated 20th March, 2008 Order for expenses to be incurred for the transportation, land and statutory and nodal agency fees for 3 nos Enercon make 800 kW Type E-53 Wind Energy Converters at site Khandke. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Expenses dated 20th March, 2008 Purchase order for supply of 6 Nos. Enercon Make 800 KW, Type E-53, Wind Energy Converters. Reference No.: SPD/EIL/Order/MH-Khandke/07-08/Supply-A dated 20th March, 2008 Order for civil and industrial works for 6 nos Enercon make 800 kW Type E-53 Wind Energy Converters. Reference No.: SPD/EIL/Order/MH-

Reference	Document
	<p>Khandke/07-08/Civil & Indus dated 20th March, 2008</p> <p>9. Purchase order for supply of steel sections, transformers & DP structure of the specification mentioned below for 6 nos Enercon make 800 kW type E-53 wind energy converters ex-works at site Khandke. Reference No.: SPD/EIL/Order/MH- Khandke/07-08/Supply-C dated 20th March, 2008</p> <p>10. Order for supply of 6. Nos concrete towers for Enercon Make 800 kW, Type E-53 wind energy converters at site Khandke. Reference No.: SPD/EIL/Order/MH- Khandke/07-08/Supply-B dated 20th March, 2008</p> <p>11. Order for expenses to be incurred for the transportation, land and statutory and nodal agency fees for 6 nos Enercon make 800 kW Type E-53 Wind Energy Converters at site Khandke. Reference No.: SPD/EIL/Order/MH- Khandke/07-08/Expenses dated 20th March, 2008</p> <p>12. Order for installation, commissioning and other services for 6 nos Enercon make 800 kW Type E-53 Wind Energy Converters at site Khandke. Reference No.: SPD/EIL/Order/MH- Khandke/07-08/Comm. dated 20th March, 2008</p> <p>13. Offer from Enercon India Limited to SPD for supply of 9 WTG's dated 27 February 2008.</p>
/PPA/	<ul style="list-style-type: none"> Wind Energy Purchase agreement between M/s Shah Promoters & Developers and MSEDCL dated 20th April 2009 for 3 X 0.8 MW WTGs at Village Agadgaon, Baradari (Khandke), Tal & District: Ahmednagar. Wind Energy Purchase agreement between M/s Shah Promoters & Developers and MSEDCL dated 25th April 2009 for 4X 0.8 MW WTGs at Village Jamb, Baradari (Khandke), Tal & District: Ahmednagar Wind Energy Purchase agreement between M/s Shah Promoters & Developers and MSEDCL dated 26 November 2009 for 2 X 0.8 Mw at village Agadgaon, , Baradari (Khandke), Tal & District: Ahmednagar.
/PRO/	<ul style="list-style-type: none"> Purchase Order, Technical Specification for the WTG model no. E-53 by M/s Enercon (India) Ltd.
/SC/	<ul style="list-style-type: none"> Letter from MEDA for Clearance for Commissioning of 2.40MW (3X800KW), Ref: PGN-I/CC/Shah P & D/2.40MW/08-09/1638 dated 31st March 2009. Letter from MEDA for Clearance for Commissioning of 0.80MW (1X800KW), Ref: PGN-I/CC/Shah P & D/0.80MW/08-09/1658 dated 31st March 2009. Letter from MEDA for Clearance for Commissioning of 2.40MW (3X800KW), Ref: PGN-I/CC/Shah P & D/2.40MW/08-09/1584 dated 30th March 2009. 1.6 MW (2 X 800 kW), Ref: PGN-I/CC/Shah P & D/1/6MW/09-10/3943 dated 1st July 2009. Letter from MEDA for Infrastructure Clearance of 3.20MW

Reference	Document
	<p>(4X800KW), Ref: PGN-I/IC/Shah P & D/3.20MW/08-09/1515 dated 25th March 2009.</p> <ul style="list-style-type: none"> Letter from MEDA for Infrastructure Clearance of 2.40MW (3X800KW), Ref: PGN-I/IC/Shah P & D/2.40MW/08-09/1529 dated 26th March 2009. Letter from MEDA for Infrastructure Clearance of 1.60MW (2X800KW), Ref: PGN-I/IC/Shah P & D/1.60MW/09-10/3874 dated 26th Jun 2009.
/SD/	Starting date of project activity based on the Purchase order placed for the 9 X0.80MW WTG (20 th March 2008)
/SF/	Loan sanction letter from Bank of Maharashtra of Ref:AX1/ADV/Shah Promoter/08-09 dated 14 th March 2009

Table 7-2: Background investigation and assessment documents

Reference	Document
/AMS I.D./	Grid Connected renewable electricity generation, version 16
/ATT/	Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities version 06, 30 September 2005.
/CBD/	CO ₂ Baseline Database for Indian Power Sector -User Guide, version 4 dated October 2008 published by CEA.
/CPM/	TÜV Nord JI / CDM CP Manual (incl. CP procedures and forms)
/GCSCP/	<ul style="list-style-type: none"> Guidelines: Simplified Project Design document (CDM-SSC-PDD) and the form for proposed new Small Scale Methodologies (CDM-SSC-NM) , Version- 05, EB- 34, Annex- 09 Template: CDM-SSC-PDD - Project Design Document form for Small-Scale project activities, Version- 03, EB- 28, Annex- 34 Guidelines on assessment of de-bundling for SSC project activities, Version 03 (EB 54, Annex 13) General guidance, Ver 12, EB41 Guidelines on the demonstration and assessment of prior consideration of the CDM, EB-49, Annex-22 Glossary of CDM terms, version 05, EB-47
/IPCC-RM/	2006 IPCC Guidelines for National Greenhouse Gas Inventories
/KP/	Kyoto Protocol (1997)

Reference	Document
/MA/	Decision 17/CP.7 (Marrakesh – Accords)
/SMP/	Simplified modalities and procedures for small-scale clean development mechanism project activities (Annex II to Decision 21/CP.18)
/TEF/	Tool to calculate the emission factor for an electricity system, version 02, EB-50, Annex-14
/TA/	“Tool for the demonstration and assessment of additionality” version-5.2, EB-39
/VVM/	Validation and Verification Manual EB 55 Annex 1

Table 7-3: Websites used

Reference	Link	Organisation
/cea/	www.cea.nic.in	Central Electricity Authority
/cma/	http://www.natcomindia.org/datasources.htm	Natcom India, Ministry of Environment, and Forest, Government of India.
/dna-i/	www.envfor.nic.in/cdm/index.htm	The National Clean Development Mechanism (CDM) Authority of India
/GHG/	http://www.ghgprotocol.org/templates/GHG5/layout.asp?MenuID=849	World Business Council for Sustainable Development
/ieta/	http://www.ieta.org/	Website of International Emission trading Association (IETA)
/imp/	www.powermin.nic.in	Indian Ministry of Power
/ipcc/	http://www.ipcc.ch/	IPCC publications
/MEDA/	http://www.mahaurja.com/Download/Sitewise_WindInstallationInfo.xls	Maharashtra Electricity Development Agency

/MERC/	http://www.mercindia.org.in/pdf/Detail_Wind_Energy_Order.pdf http://www.mercindia.org.in/pdf/Annexures.pdf	Maharashtra Electricity Regulatory Commission
/mnre/	http://mnes.nic.in/	Website of Ministry of New and Renewable Energy
/moef/	http://envfor.nic.in/	Ministry of Environment and Forests.
/UNFCCC/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Rajesh Chandrakant Shah	M/s Shah Promoters & Developers, Partner –Management
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Sunit Shah	M/s Shah Promoters & Developers, Representative
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Hemant	M/s Shah Promoters & Developers, Accountant
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Umesh Kadam	M/s Shah Promoters & Developers, Accountant
/IM02/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Pooja Verma	MITCON, Chief Consultant
/IM02/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Vikash Kumar Singh	MITCON, Senior Consultant
/IM02/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Anant Ladukar	MITCON, Project Consultant
/IM02/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Chandra Prakash Singh	MITCON, Financial Expert
/IM03/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	J. V. Mamadapure	Enercon India Limited,



Reference	Mol ¹		Name	Organisation / Function
/IM03/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	P. B. Patil	Enercon India Limited.

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Validation Protocol
- A2:** Assessment of Baseline Identification
- A3:** Assessment of Financial Parameters
- A4:** Assessment of Barrier analysis
- A5:** Outcome of the GSCP
- A6:** Appointment certificates of the team members

ANNEX 1: VALIDATION PROTOCOL

Table A-1: Requirements Checklist

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
A. General Description of Project Activity				
A.1. Approval <i>The written approval of the parties involved is a mandatory requirement</i>				
A.1.1. Has the project provided written approvals of all parties involved? (EB 55 Annex 1, § 44) <i>Indicate whether a letter of approval has been received, with a clear reference to the supporting documentation.</i> <i>Indicate whether this letter was provided to the DOE by the project participants or directly by the DNA</i>	<i>Description:</i> The following party is involved in the project activity: India (Host Party) and the project participant: M/s Shah Promoters & Developers. <i>Justification of evidences:</i> M/s Shah Promoters & Developers has received the host country approval (4/9/2009-CCC, dated 2009-07-17) from DNA of India to ascertain the project activity meets with the host country's sustainable development criteria. <i>Conclusion:</i> No CAR/ CL is necessary.	/HGA/	OK	OK
A.1.2. Are the approvals issued from organisations listed as DNAs on the UNFCCC CDM website?	<i>Description:</i> Yes, India is a Party to the Kyoto Protocol and has ratified the Protocol on 26 August 2002. <i>Justification of evidences:</i> Yes, approval (HGA) is issued	/unfccc/ /dna-i/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 44, 47, 48, 49 (b), 49 (c), 53) <i>Indicate the means of validation employed to assess the authenticity, i.e. in case of doubt whether LoA has been verified with the DNA. Further describe which entity submitted the LoA for validation.</i>	from organisations listed as DNAs (India) (data is available publically at the following link http://cdm.unfccc.int/DNA/index.html). The HGA issued by the Indian DNA (4/9/2009-CCC, dated 2009-07-17) is submitted directly by the PP to TÜV Nord along with the letter if invitation issued by MoEF to the project promoter for attending the DNA meeting. Hence, TÜV Nord confirms that the approvals issued from Indian DNA fulfils stipulations laid under EB 55 Annex 1, §§ 44, 47, 48, 49 (b), 49 (c), 53. <i>Conclusion:</i> No CAR/ CL is necessary.			
A.1.3. Do the written approvals confirm that the corresponding party is a Party to the Kyoto Protocol? (EB 55 Annex 1, § 45(a))	<i>Description:</i> Yes, the HGA provides written confirmation that the India is a Party to the Kyoto Protocol. <i>Justification of evidences:</i> HGA is submitted to TÜV Nord which confirms that India has ratified the Kyoto Protocol in August 2002. Hence, it meets the stipulation laid under EB 55 Annex 1, § 45(a). <i>Conclusion:</i> No CAR/ CL is necessary.	/HGA/ /dna-i/	OK	OK
A.1.4. Do the written approvals confirm that the participation is voluntary? (EB 55 Annex 1, § 45(b))	<i>Description:</i> Yes, the HGA confirms that the participation of PP is voluntary. <i>Justification of evidences:</i> PP has submitted HGA to TÜV Nord, which confirms(HGA, page no.02, bullet no.2) that the participation of the PP under the proposed CDM project activity is voluntary participation. Hence it meets the stipulation made under EB 55 Annex 1, § 45(b) and found to be OK.	/HGA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<i>Conclusion:</i> No CAR/ CL is necessary.			
A.1.5. Does the written approval from the host country confirm that the project contributes to the sustainable development in the country? (EB 55 Annex 1, § 45(c))	<p><i>Description:</i> Yes, the HGA confirms through written approval that the project contributes to the sustainable development in the country</p> <p><i>Justification of evidences:</i> HGA is submitted to TÜV Nord and DOE on verification of the same confirms that the project activity meets the stipulation made under EB 55 Annex 1, § 45(c) and found to be OK.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/HGA/	OK	OK
A.1.6. Do the written approvals refer to the precise project title in the PDD submitted for registration or an additional specification of the project activity, e.g. PDD version number? (EB 55 Annex 1, §§ 45(d), 50)	<p><i>Description:</i> Yes, the HGA has the same project title as mentioned in the PDD submitted for registration.</p> <p><i>Justification of evidences:</i> HGA is submitted to TÜV Nord and DOE on verification of the HGA and PDD confirms that the project activity meets the stipulation made under EB 55 Annex 1, §§ 45(d), 50 and found to be OK.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/HGA/	OK	OK
A.1.7. Are the written approvals unconditional with regard to A.1.3 to A.1.6? (EB 55 Annex 1, § 46)	<p><i>Description:</i> The written approvals unconditional with regard to A.1.3 to A.1.6</p> <p><i>Justification of evidences:</i> HGA is submitted to TÜV Nord. TÜV Nord on verification of the HGA confirms that the project activity meets the stipulation made under EB 55 Annex 1, § 46 and found to be OK</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/HGA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>A.1.8. Is the information regarding the project participants listed in section A3 and in Annex 1 of the PDD internally consistent to each other?</p> <p>(EB 55 Annex 1, § 51)</p>	<p><i>Description:</i> Yes, the information regarding the project participants listed in section A3 and in Annex 1 of the PDD internally consistent to each other.</p> <p><i>Justification of evidences:</i> TÜV Nord has checked and found that the consistent information in section A3 and in Annex 1 of the PDD has been provided by the PP. (M/s Shah Promoters & Developers). TÜV Nord on verification of the PDD confirms that the project activity meets the stipulation made under EB 55 Annex 1, § 51 and found to be OK.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	<p>/PDD/ /HGA/</p>	<p>OK</p>	<p>OK</p>
<p>A.1.9. Are all project participants listed in the PDD approved at least by one Party involved?</p> <p>(EB 55 Annex 1, § 51)</p> <p><i>Indicate whether the participation of the project participant(s) has been approved by a Party to the Kyoto Protocol.</i></p> <p><i>Describe the means of validation employed to draw this conclusion.</i></p>	<p><i>Description:</i> M/s Shah Promoters & Developers is the only project participant listed in the PDD (ref section A.3 and Annex-1). Furthermore, M/s Shah Promoters & Developers has already obtained the HGA from the Indian DNA. Neither the PDD nor the HGA mentions participation of any other project participants.</p> <p><i>Justification of evidences:</i> TÜV Nord has checked and confirms that M/s Shah Promoters & Developers is the only project participant as appropriately listed in the PDD (ref section A.3 and Annex-1). Furthermore, the PP has already submitted the HGA obtained from the Indian DNA. Neither the PDD nor the HGA mentions participation of any other project participants except M/s Shah Promoters & Developers (ref: the submitted HGA and PDD). TÜV Nord therefore confirms that project activity meets the stipulation made under EB 55 Annex 1, § 51 and found to be OK.</p>	<p>/HGA/ /PDD/</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<i>Conclusion:</i> No CAR/ CL is necessary.			
A.1.10. Are any other project participants approved but not listed in the PDD? (EB 55 Annex 1, § 52)	<p><i>Description:</i> Not applicable, please refer comments made under A.1.9.</p> <p><i>Justification of evidences:</i> TÜV Nord has checked the same with the help of the submitted HGA and PDD. TÜV Nord therefore confirms that project activity meets the stipulation made under EB 55 Annex 1, § 52 and found to be OK.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/HGA/ /PDD/	OK	OK
A.1.11. Does the DoE have a direct contractual relationship with the PP? (EB 55 Annex 1, § 51; EB 50 Annex 48, §§ 7–9) <i>Check whether the PPs listed in the published PDD are still listed in the PDD going to be submitted to request for registration.</i>	<p><i>Description:</i> Yes, the DOE has direct contractual relationship with the PP.</p> <p><i>Justification of evidences:</i> The PP has placed the contract to the DOE on date 2009/02/19 which is in line with the requirements of EB 55 Annex 1, § 51; EB 50 Annex 48, §§ 7–9.</p> <p><i>Conclusion:</i> The project activity complies with the requirement.</p>	/CON/	OK	OK
<p>A.2. Contribution to Sustainable Development</p> <p><i>The project's contribution to sustainable development is assessed.</i></p>				
A.2.1. Has the host country confirmed that the project assists it in achieving sustainable development? (EB 55 Annex 1, §§ 125–127) <i>Contains a statement confirming whether the letter of</i>	<p><i>Description:</i> Yes, the HGA confirms through written approval that the project contributes to the sustainable development in the country</p> <p><i>Justification of evidences:</i> HGA is submitted to TÜV Nord and DOE on verification of the same confirms that the project</p>	/HGA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>approval by the DNA of the host party confirmed the contribution of the project to the sustainable development of the Host Party.</i>	activity meets the stipulation made under EB 55 Annex 1, §§ 125–127 and found to be OK. <i>Conclusion:</i> No CAR/ CL is necessary.			
<p>A.2.2. Will the project create other environmental or social benefits than GHG emission reductions?</p> <p>(EB 55 Annex 1, §§ 125–127)</p> <p><i>Describe the other positive aspects not related to GHG emission reduction on the environment.</i></p>	<p><i>Description:</i> The project creates technological and economic benefits in addition to environmental and social benefits and GHG emission reductions.</p> <p>The project activity will provide direct as well as indirect job opportunities to the local population mainly for activities like construction and security. Further, the project activity also caters to the growing power demand of the country. The description written under social well being was not clear hence TÜV Nord raised clarification request under finding A2.</p> <p><i>Justification of evidences:</i> Based on the sectoral and local expertise, TÜV Nord has confirms that the above mentioned benefits are possible from the project activity. However, the PP needs to substantiate the sentence “this includes development..... availability of electricity” under section A.2 of PDD, under social wellbeing.</p> <p><i>Conclusion:</i> finding A2 has been raised.</p>	/PDD/	finding A2	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
A.3. PDD editorial aspects <i>The PDD used as a basis for validation shall be prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website.</i>				
A.3.1. Has the latest version of the PDD form been applied? (EB 55 Annex 1, § 55)	<p><i>Description:</i> Yes, the PDD is applying the latest PDD template (Version 03)</p> <p><i>Justification of evidences:</i> PDD has been checked against the PDD template available on UNFCCC website. http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/PDD_for_m02_v03.doc and confirms that latest template for PDD is applied by the PP. TÜV Nord therefore confirms that the project activity meets the stipulation made under EB 55 Annex 1, § 55 and found to be OK.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/unfccc/ /GCSCP/	OK	OK
A.3.2. Has the PDD been duly filled in accordance with the latest guidance(s)? (EB 55 Annex 1, §§ 56–57)	<p><i>Description:</i> Yes, latest version of the guideline (Version 05) has been appropriately adopted by the PP.</p> <p><i>Justification of evidences:</i> TÜV Nord has verified same against the latest available version of guideline for CDM SSC PDD available on UNFCCC website http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid02_v05.pdf and that the project activity meets the stipulation made under EB 55 Annex 1, §§ 56–57 and found to be OK. However, the source of the latitude and longitude (under section A.4.1.4 of the PDD) was not provided. Hence Finding</p>	/unfccc/ /GCSCP/	finding A3	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	A3 was raised. <i>Conclusion:</i> Finding A3 has been raised.			
A.4. Technology to be employed <i>Validation of project technology focuses on the project engineering, choice of technology and competence/maintenance needs. The DOE should ensure that environmentally safe and sound technology and know-how is used.</i>				
<p>A.4.1. Does the PDD contain a clear, accurate and complete project description?</p> <p>(EB 55 Annex 1, §§ 58–59)</p> <p><i>The PDD shall contain a clear description of the project activity which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation.</i></p> <p><i>Pl. consider esp. chapters A.2, A.4.2 and A.4.3 (in case of LSC PDD) for assessment.</i></p> <p><i>Describe the process undertaken to validate the accuracy and completeness of the project description.</i></p> <p><i>Contain the DOE's opinion on the accuracy and completeness of the project description.</i></p>	<p><i>Description:</i> No, the PDD does not contain a clear, accurate and complete description of project in section A.2, A.4.2 and A.4.3 of the PDD.</p> <p><i>Justification of evidences:</i> Hence, finding A1, finding A2 and finding A4 was raised.</p> <p>Finding A1 in form of CAR:</p> <p>The sentence “had this amount of electricity.....per annum” under section A.2 of the PDD is incorrect as the electricity generated from the project activity will displace electricity from NEWNE grid.</p> <p>Furthermore, the PP should provide the link to MoEF website for the traceability of guidelines to indicate contribution of project activity towards sustainable development.</p> <p>Finding A2 in form of CL:</p>	<p>/unfccc/ /PO/ /PPA/ /SC/</p>	<p>finding A1, finding A2, finding A4</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p>Please substantiate on the sentence “this includes development..... availability of electricity” under section A.2 of PDD, social wellbeing. Clarification requested.</p> <p>Finding A4 in form of CAR:</p> <p>Under section A.4.2 of PDD, the technical description is incomplete as it fails to incorporate technical description of the generator.</p> <p>7.1.1</p> <p><i>Conclusion:</i> Finding A1, finding A2 and finding A4 has been raised.</p>			
A.4.2. Is this description in accordance with the real situation or (in case of greenfield projects) is it most likely that the project will be implemented acc to the project description?	<p><i>Description:</i> The project is already implemented and corresponds to the description provided under the PDD.</p> <p><i>Justification of evidences:</i> TÜV Nord has confirmed the implementation of the project activity in line with the PDD during the review of the submitted PO, clearances, commissioning certificates,</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/unfccc/ /IM01/ /IM02/ /IM03/	OK	OK
A.4.3. In case the project involves alteration of the existing installation or process, is a clear description available regarding the differences between the project and the pre-project situation?	<p><i>Description:</i> The project does not involve alteration of the existing installation.</p> <p><i>Justification of evidences:</i> Please refer to comments made under section A.4.1 of report.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /PO/ /SC/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 63–64) <i>Describe the steps taken to validate this issue.</i>				
A.4.4. Does the project design engineering reflect current good practices? <i>Consider the equipment specifications, literature (e.g. EU BREF papers) and professional experiences. Describe the process undertaken to assess the engineering.</i>	<i>Description:</i> The project design engineering reflects current good practices which were evidenced from the technical description of the WTG's. <i>Justification of evidences:</i> TÜV Nord confirms the same with the help of the submitted technical description of the Enercon Make E-53 WTG's. <i>Conclusion:</i> No CAR/ CL is necessary.	/PO/ /PRO/	OK	OK
A.4.5. 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? <i>Describe the process undertaken to assess the state of the art technology.</i>	<i>Description:</i> The project design engineering project use state of the art technology project use state of the art technology which was evidenced from the technical specifications to TÜV Nord. <i>Justification of evidences:</i> TÜV Nord confirms the same with the help of the assessment of technical specifications of Enercon Make E-53 WTG's. <i>Conclusion:</i> No CAR/ CL is necessary.	/PO/	OK	OK
A.4.6. Does the project make provisions for meeting training and maintenance needs? <i>Describe the process undertaken to assess the maintenance and training needs.</i>	<i>Description:</i> The O & M contractor has provided the schedule of the training provided to the personnel involved in monitoring and maintenance of the project thereby meeting the provisions for meeting training and maintenance needs. <i>Justification of evidences:</i> The supportive documents related to the training of the O & M personnel after induction in M/s Enercon India Private Limited are submitted to TÜV Nord.	/CT/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	TÜV Nord during site visit interviews investigated the competence of the involved personnel, inspected log records and monitoring and maintenance procedures and confirms that the involved personnel possess necessary proficiency to carry out the day to day task of monitoring. <i>Conclusion:</i> No CAR/ CL is necessary.			
A.5. Small scale project activity <i>It is assessed whether the project qualifies as small-scale CDM project activity</i>				
A.5.1. Does the project qualify as a small scale CDM project activity as defined in decision 4 / CMP.1 annex II? (EB 55 Annex 1, §§ 135–136 (a))	<i>Description:</i> Yes, the capacity of the project activity is 7.2 MW (<15 MW) <i>Justification of evidences:</i> TÜV Nord ascertained the same from the site visit and technical specification of the project activity. <i>Conclusion:</i> No CAR/ CL is necessary.	/CT/	OK	OK
A.5.2. Does the project apply one of the approved small scale categories and any methodology and tool referred therein? (EB 55 Annex 1, § 136 (b)) <i>Check, if applicable the expiry dates of the applied methodology. Further, take into consideration the general guidance to the methodologies¹⁸, which provide guidance on</i>	<i>Description:</i> Please refer finding B12. <i>Justification of evidences:</i> <u>Extract of finding B12</u> The PDD applies AMS I.D version-13 which is expired; therefore the applicable version of AMS I.D needs to be applied. <i>Conclusion:</i> Finding B12 has been raised.	/AMS I.D./ /GCSCP/	finding B12	OK

¹⁸ <http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>equipment capacity, equipment performance, sampling and other monitoring related issues.</i>				
<p>A.5.3. Is the small scale project activity not a debundled component of a larger project activity?</p> <p>(EB 55 Annex 1, § 136 (c))</p> <p><i>Describe the steps taken to validate this issue. Pl refer to the Compendium of guidance on debundling (EB 36, Annex 27 54, Annex 13).</i></p>	<p><i>Description:</i> The project is not a debundled component of larger project activity. However, please refer finding B12.</p> <p><i>Justification of evidences:</i> <u>Extract of finding B12</u></p> <p>Furthermore, the section A.4.5 of PDD applies “Compendium of guidance on the debundling for SSC project activities”, Version 02, EB 46 which is not in line with the recent “Guidelines on assessment of de-bundling for SSC project activities” EB 54</p> <p><i>Conclusion:</i> Finding B12 has been raised.</p>	<p>/PDD/ /GCSCP/</p>	<p>finding B12</p>	<p>OK</p>
<p>A.5.4. Is an assessment of the environmental impacts of the proposed SSC CDM project activity required by the host Party?</p> <p>(EB 55 Annex 1, § 136 (d))</p>	<p><i>Description:</i> No, assessment of the environmental impacts of wind based power generation (the proposed SSC CDM project activity) is not required by the host party.</p> <p><i>Justification of evidences:</i> The wind based project activities does not fall under the purview of Environmental Impact Assessment notification (dated 14th September, 2006) released by the Ministry of Environment and Forests (MoEF), Government of India (GOI).</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	<p>/PDD/ /moef/</p>	<p>OK</p>	<p>OK</p>
B. Project Baseline, Additionality and Monitoring Plan				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.1. Application of the Methodology				
<p>B.1.1. Does the project apply an approved and applicable CDM methodology and a valid version thereof?</p> <p>(EB 55 Annex 1, § 65)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> Please refer corresponding comments made under A.5.1 and A.5.2.</p> <p><i>Justification of evidences:</i> Please refer corresponding comments made under A.5.1 and A.5.2.</p> <p><i>Conclusion:</i> Please refer corresponding comments made under A.5.1 and A.5.2. Finding B12 has been raised..</p>	<p>/PDD/ /AMS I.D./ 8</p>	finding B12	OK
<p>B.1.2. Is the applied CDM methodology identical with the version available on the UNFCCC website?</p> <p>(EB 55 Annex 1, §§ 65, 70)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> The version of the applied methodology has expired. Please refer finding B12.</p> <p><i>Justification of evidences:</i> <u>Extract of finding B12</u> The PDD applies AMS I.D version-13 which is expired; therefore the applicable version of AMS I.D needs to be applied.</p> <p><i>Conclusion:</i> Finding B12 has been raised.</p>	<p>/PDD/ /AMS I.D./</p>	finding B12	OK
<p>B.1.3. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled?</p> <p>(EB 55 Annex 1, §§ 66(a)–(b), 68, 71, 76)</p> <p><i>Describe for <u>each</u> applicability criterion listed in the selected approved methodology the steps taken to assess the information contained in the PDD.</i></p>	<p><i>Description:</i> PP needs to appropriately demonstrate the compliance of the project activity against the applicability criterion prescribed by the applied small scale methodology AMS I.D “Grid connected renewable electricity generation”, Version-16. Please refer finding B12.</p> <p>8.1.1</p> <p><i>Justification of evidences:</i> <u>Extract of finding B12</u> The PDD applies AMS I.D version-13 which is expired;</p>	<p>/PO/, /PPA/, /PDD/, HGA/, /O & M/, /AMS I.D./, , /IM01/, /IM02/,</p>	finding B12	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	therefore the applicable version of AMS I.D needs to be applied. <i>Conclusion:</i> Finding B12 has been raised.	/IM03/		
B.1.4. In case one or more applicability criteria have not been met, has the validation team requested clarification to, revision of or deviation from the methodology in accordance with the latest guidelines? (EB 55 Annex 1, §§ 72–75)	<i>Description:</i> Not applicable. Please refer to section B.1.3 of this table. <i>Justification of evidences:</i> Please refer to section B.1.3 of this table. <i>Conclusion:</i> The project activity complies with the requirement.	/PDD/ /AMS I.D/	OK	OK
B.1.5. Is the project in accordance with every other stipulation or requirement mentioned in all sections of the methodology and in guidances for approved methodologies provided by the CDM EB? (EB 55 Annex 1, § 69, 71) <i>Describe the steps taken to check whether the proposed project activity meets all the other possible stipulations and /or limitations mentioned in all sections of the approved methodology selected.</i>	<i>Description:</i> The PP applied AMS I.D version 13, which has expired. Please refer finding B12. Therefore, the conclusion is subjected to satisfactory closure of finding B12. <i>Justification of evidences:</i> <u>Extract of finding B12</u> The PDD applies AMS I.D version-13 which is expired; therefore the applicable version of AMS I.D needs to be applied. <i>Conclusion:</i> Finding B12 has been raised.	/PDD/ /AMS I.D/	finding B12	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.2. Project Boundaries <i>Project Boundaries are the limits and borders defining the GHG emission reduction project</i>				
<p>B.2.1. Are the project's spatial boundaries (geographical) clearly defined?</p> <p>(EB 55 Annex 1, §§ 67(a), 78–80)</p> <p><i>Provide information on how the validation of the geographical boundary has been performed either based on reviewed documented evidence or by describing what was observed/viewed during a site visit.</i></p>	<p><i>Description:</i> The project's spatial boundaries (geographical) are clearly defined under section B.3 of PDD. However, also refer finding B12.</p> <p>8.1.2 <i>Justification of evidences:</i> The project boundary is defined as "The project boundary encompasses the physical, geographical site of the renewable" generation source in the PDD. In line with the EB 55 Annex 1, §§ 67(a), 78–80, TÜV Nord has checked the description of the project boundary under section B.3 of the PDD and compared the same with the submitted documentary evidences like PO, PPA, and commissioning certificate. TÜV Nord confirms that the project boundary includes the WEGs, regional (NEWNE) grid & all the connected power plants. TÜV Nord during the site visit confirmed the capacity of the project activity, installed monitoring equipment to monitor baseline emissions and interviewed the personnel responsible for day to day monitoring. The description of the project's spatial boundaries is inline with AMS I.D, version 16.</p> <p><i>Conclusion:</i> Please refer finding B12.</p>	<p>/PDD/ /PPA/ /AMS I.D/ /TA/ /cea/</p>	finding B12	OK
B.2.2. Are all sources and GHGs included in the project boundary as required in the applied	<i>Description:</i> In the baseline, CO ₂ is the only source of GHGs which is appropriately included in the project boundary inline	/AMS	finding	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>methodology?</p> <p>(EB 55 Annex 1, §§ 67(a), 78–80)</p> <p><i>Provide information on how the validation of the GHGs and sources has been performed either based on reviewed documented evidence or by describing what was observed/viewed during a site visit.</i></p>	<p>with the applied methodology and “Tool to calculate the emission factor for an electricity system”. However, please refer finding B12.</p> <p><i>Justification of evidences:</i> TÜV NORD confirms that the project activity will lead to only baseline emissions due to net electricity export to the fossil fuel dominated NEWNE grid. Furthermore, since the project activity is displacing the grid electricity the PP has appropriately considered CO₂ as the only source of GHGs included in the project boundary (inline with the applied methodology and published CEA database). Finding B12 has been raised since the applied version of the methodology and “Tool to calculate the emission factor for an electricity system” needs to be updated.</p> <p><i>Conclusion:</i> Please refer finding B12.</p>	<p>I.D/ /PDD/ /CBD/</p>	<p>B12</p>	
<p>B.2.3. In case the methodology allows to choose whether a source and/or gas is to be included, is the choice sufficiently explained and justified?</p> <p>(EB 55 Annex 1, §§ 67(a), 78–80)</p> <p><i>Confirm if the justification provided by the PPs is reasonable, based on assessment of supporting documented evidence provided by the PPs or by onsite observations.</i></p>	<p><i>Description:</i> Not applicable, CO₂ is the only source of GHGs included in the project boundary inline with the applied methodology</p> <p><i>Justification of evidences:</i> The same information is transparently provided in the PDD.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	<p>/AMS I.D/</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.3. Baseline Identification <i>The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.</i>				
B.3.1. What possible baseline scenarios have been considered? (EB 55 Annex 1, §§ 67(b), 83) <i>Fill in all alternatives in table A-2.</i>	<p><i>Description:</i> The baseline for the project is generation of electricity from the operation of existing fuel mix in the grids comprising mainly fossil fuel based power plants and future capacity expansion connected to the grids. However, please refer finding B10.</p> <p><i>Justification of evidences:</i> According to the regulation for small scale project activities the additionality must be substantiated with identification of barriers as per the guidance given in Attachment A to Appendix B of the simplified modalities and procedures. Therefore, the identification of alternatives is not necessary. Moreover, since this is a wind project and as per Additionality Tool the only alternatives for this type of project are <i>status quo</i> and setting up of the project without CDM benefits. However, since the same is not clearly mentioned under section B.5 of the PDD, DOE has raised CAR under finding B10.</p> <p><u>Extract of finding B10</u></p> <p>7. The PDD under section B.5 does not provide the possible baseline scenarios. .</p>	/PDD/ /AMS I.D/	finding B10	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<i>Conclusion:</i> Finding B10 has been raised.			
<p>B.3.2. Is the list of alternatives complete? (EB 55 Annex 1, §§ 67(b), 83)</p> <p><i>Describe how it was validated that all alternatives are plausible and no plausible alternative is excluded from the consideration</i></p>	<p><input type="checkbox"/> All plausible alternative scenarios listed in the approved methodology have been considered. In the course of document review and site visit, it has been validated that no other alternatives which supply comparable outputs and / or services are to be taken into consideration. Thus no plausible scenario has been omitted.</p> <p><input checked="" type="checkbox"/> The following alternative scenarios/options have been omitted. Corresponding CAR(s)/CL(s) has /have been issued</p> <p><u>Extract of finding B10:</u></p> <p>The PDD under section B.5 does not provide the possible baseline scenarios.</p>	/PDD/	finding B10	OK
<p>B.3.3. What has been identified as the baseline scenario? (EB 55 Annex 1, §§ 81–82, 86)</p> <p><i>Describe the chosen BL scenario, taking into consideration the technology that would be employed and / or the activities that would take place in the absence of the proposed CDM project activity.</i></p>	<p><i>Description:</i> The identified baseline scenario is in the absence of the project activity; electricity would have been generated from the operation of existing fuel mix in the NEWNE grid dominated with fossil fuel based power plants and future capacity expansion connected to the grids. However, the DOE has raised CAR under finding B10</p> <p><i>Justification of evidences:</i> <u>Extract of finding B.10</u></p> <p>7. The PDD under section B.5 does not provide the possible baseline scenarios.</p> <p><i>Conclusion:</i> Finding B10 has been raised.</p>	/PDD/ /AMS I.D/ /CEA/	finding B10	OK
B.3.4. Has the baseline scenario been determined	For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2.	/PDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>according to the methodology?</p> <p>(EB 55 Annex 1, §§ 82, 87(e))</p> <p><i>Describe how it is validated that the identification of the most plausible baseline scenario is carried out in accordance with the applied methodology and applied methodological tools. Please refer to table A-2.</i></p>	<p><input checked="" type="checkbox"/> The determination has been carried out as per the procedure contained in the applied methodology.</p> <p><input type="checkbox"/> The following CARs / CLs have been identified with respect to the selection of the baseline scenario:</p>	<p>/AMS I.D/ /CEA/</p>		
<p>B.3.5. Has any plausible alternative scenario been excluded?</p> <p>(EB 55 Annex 1, § 83)</p> <p><i>Describe how it is validated that no plausible alternative scenario has been excluded.</i></p>	<p>For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2.</p> <p><input type="checkbox"/> No plausible baseline scenario has been excluded.</p> <p><input checked="" type="checkbox"/> The following plausible baseline scenarios have been excluded though no adequate justification has been provided for elimination. The following CARs / CLs have been issued:</p> <p>Extract of finding B10</p> <p>7. The PDD under section B.5 does not provide the possible baseline scenarios. .</p>	<p>/PDD/ /AMS I.D/ /CEA/</p>	<p>finding B10</p>	<p>OK</p>
<p>B.3.6. Is the identified baseline scenario reasonable and has the baseline scenario been determined using conservative assumptions where possible, including relevant references and sources?</p> <p>(EB 55 Annex 1, §§ 84–86(a)–(c)) <i>Describe whether the choice of the identified baseline scenario is reasonable by validating the <u>key assumptions, calculations and rationales</u> used in the PDD. Describe whether these are listed, relevant and <u>conservatively interpreted</u> in the PDD.</i></p>	<p><input type="checkbox"/> The baseline scenario is reasonable and has been determined using conservative assumptions where possible. Please refer to comments in table A-2 and sections B.3.2 to B.3.5 above.</p> <p><input checked="" type="checkbox"/> The following CARs / CLs have been issued because assumptions used in the baseline determination have been assessed to be not conservative</p> <p>Please refer finding B10 and B11.</p>	<p>/PDD/ /AMS I.D/ /CEA/</p>	<p>finding B10, finding B11</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.3.7. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?</p> <p>(EB 55 Annex 1, §§ 85, 87(d))</p> <p><i>Describe whether the PP has shown that all relevant policies and circumstances have been identified and correctly considered in the PDD in accordance with the guidance by the Board. Pl. consider the guidance EB 22 annex 3 (regarding E+ and E- policies).</i></p>	<p><i>Description:</i> No, the baseline scenario does not sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations.</p> <p><i>Justification of evidences:</i> Please refer CL raised under finding B11</p> <p><i>Conclusion:</i> CL raised under finding B11 has been raised by the assessment team.</p> <p>8.1.3</p>	/PDD/ /AMS I.D/ /TA/ /CEA/	finding B11	OK
<p>B.3.8. Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?</p> <p>(EB 55 Annex 1, § 87(a)–(c))</p> <p><i>Describe whether the documents and sources referred to in the PDD are correctly quoted and clearly referenced.</i></p>	<p><i>Description:</i> Please refer finding B1 and finding B11.</p> <p><i>Justification of evidences:</i> Please refer B1 and finding B11.</p> <p><i>Conclusion:</i> CAR raised under finding B1 and CL is raised under finding B11 by the assessment team.</p>	/PDD/ /AMS I.D/ /TA/ /CEA/	finding B1, finding B11	OK
<p>B.3.9. Does the PDD contain a <i>verifiable</i> description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity.</p> <p>(EB 55 Annex 1, § 86)</p>	<p><i>Description:</i> Please refer to sections B.3.3 and B.3.6 of this table.</p> <p><i>Justification of evidences:</i> Please refer to sections B.3.3 and B.3.6 of this table.</p> <p><i>Conclusion:</i> Please refer to sections B.3.3 and B.3.6 of this table.</p>	/PDD/ /AMS I.D/ /PRO/ /cea/	Finding B10 and Finding B11	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.4. Additionality Determination <i>The assessment of additionality will be validated with focus on whether the project itself is not a likely baseline scenario.</i>				
B.4.1. Methodology				
<p>B.4.1.1. Does the PDD describe how the project is additional and does the additionality justification follow the requirements of the applied methodology and/or methodological tools?</p> <p>(EB 55 Annex 1, §§ 67(d), 94–95) <i>Describe how it is validated that additionality justification is carried out in accordance with the applied methodology and/or applied methodological tools. Further focus your assessment on the reliability and credibility of data, rationales and assumptions, justifications and documentations provided by the PP.</i></p>	<p><i>Description:</i> The description in the PDD does not substantiate how the project is additional; however the additionality of the project activity was proven by Investment analysis and is according to the Attachment A to Appendix B. Assessment team raised CAR/ CLs as the additionality justification does not completely follow the requirements of the applied methodology and/or methodological tools.</p> <p><i>Justification of evidences:</i> Please refer CARs raised under finding B2, finding B3, finding B7 and finding B9 and CLs raised under finding B8, finding B10.</p> <p><i>Conclusion:-</i> finding B2, finding B3, finding B7 and finding B9 and CLs raised under finding B8, finding B10.</p>	/PDD/ /TA/	finding B2, finding B3, finding B7, finding B9, finding B8, finding B10	OK
B.4.2. Consideration of CDM before project start				
<p>B.4.2.1. Is the project starting date reported in accordance with the CDM glossary of terms?</p> <p>(EB 55 Annex 1, § 104(a)) <i>Assess why the chosen starting date can be considered as the earliest date at which either the implementation or</i></p>	<p><i>Description:</i> Yes, the project starting date reported in accordance with the CDM glossary of terms.</p> <p><i>Justification of evidences:</i> The start date is the date on which the purchase order was placed on Enercon (India) Ltd., i.e. 2008/03/20. The start date of the project activity is in line with the CDM Glossary of CDM terms (Ver. 05).</p>	/PDD/ /TA/ /GCSCP/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p><i>construction or real action of a project has begun or will begin.</i></p> <p><i>Check that no other activities related to the project that happened before the identified start date can be considered as start date. In this context please also take into consideration infrastructural expenses if they are relevant (in terms of costs and importance for the project implementation) in the specific context of the project activity.</i></p>	<p>The date was verified from the copy of purchase order^{/PO/} submitted by the project proponent.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>			
<p>B.4.2.2. In case the project start date is on or after 2nd August 2008 has the PP informed the DNA and UNFCCC about the intension to seek CDM status?</p> <p>(EB 55 Annex 1, §§ 99–101)</p> <p><i>Describe whether such a notification has been provided by the project participants within six months of the project activity start date; if NOT it shall be determined that the CDM was not seriously considered.</i></p>	<p><i>Description:</i> The start date of the project activity is 2008/03/20 which is before 2008//08/02 so the PP need not inform the DNA and UNFCCC about the intension to seek CDM status.</p> <p><i>Justification of evidences:</i> The start date of project activity was verified from the copy of purchase order^{/PO/} submitted by the project proponent.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /PO/ /TA/ /GCSCP/	OK	OK
<p>B.4.2.3. In case the project start date is before commencing of validation and 2nd August 2008, was the incentive from the CDM seriously considered and are details given in the PDD?</p> <p>(EB 55 Annex 1, §§ 100, 102)</p> <p><i>Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.</i></p>	<p><i>Description:</i> The start date for this existing project activity (project activity with start date before 2008/08/02) is before commencement of validation. However, the DOE has raised below mentioned CLs.</p> <p><i>Justification of evidences:</i></p> <p>Extract of clarification request raised under finding B8: 1. Chronology of events given in section B.5. may be restricted to demonstrating the fulfillment of the conditions stipulated vide Annex 22 of EB 49.</p>	/PDD/ /MD/ /IRR/ /GCSCP/	finding B8; finding B10	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p>Extract of clarification request raised under finding B10:</p> <p>5. If the CDM benefits were considered imperative for the viability of the project, it may be explained as to how the project participant committed funds to the project in advance of receiving even a positive validation opinion.</p> <p>6. It may be clarified how the CDM revenues were considered essential to overcome the investment barrier to this project activity, in particular that the benchmark represents a rate below which the investment could not be made</p> <p><i>Conclusion:</i> finding B8, finding B10 was raised.</p>			
<p>B.4.2.4. How and when was the decision to proceed with the project taken? <i>Describe the steps taken to validate the starting date.</i></p>	<p><i>Description:</i> The decision to proceed with the project with CDM benefit was taken in the meeting of Partners of M/s Shah Promoters & Developers held on 2008/03/01.</p> <p><i>Justification of evidences:</i> The DOE verified the same from the copy of the Partners' resolution^{/MD/} provided by the project proponent.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	<p>/PDD/ /MD/</p>	<p>OK</p>	<p>OK</p>
<p>B.4.2.5. Is the project start date consistent with the available evidences? (EB 55 Annex 1, § 102) <i>Describe the evidence assessed regarding the prior consideration of the CDM (if necessary). Describe whether the evidence to support such consideration is adequately</i></p>	<p><i>Description:</i> Yes, the project start date consistent. But the PP has not provided the various steps undertaken by the project proponent for implementation of the project activity parallel to the steps undertaken for registering the project as CDM project activity. The DOE has therefore raised clarification request under finding B8 in line with EB 55 Annex 1, § 102.</p>	<p>/PDD/ /PO/</p>	<p>finding B8</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>and transparently described in the PDD.</i>	<p><i>Justification of evidences:</i></p> <p>Extract of clarification request raised under finding B8:</p> <ol style="list-style-type: none"> 1. Chronology of events given in section B.5. may be restricted to demonstrating the fulfilment of the conditions stipulated vide Annex 22 of EB 49. <p><i>Conclusion:</i> finding B8 has been raised by the DOE.</p>			
<p>B.4.2.6. Was the decision to proceed with the project taken by a person which has the authority to do so?</p> <p>(EB 55 Annex 1, § 102(a))</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> Yes, however finding B8 has been raised.</p> <p><i>Justification of evidences:</i> The decision to proceed with the project was taken by the Partners of the firm, which has the authority to take the decision. This was verified from the copy of minutes of meeting of Partners of firm^{MD/} held on 2008/03/01 submitted by the PP. However, the PP has not provided the various steps undertaken by the project proponent for implementation of the project activity parallel to the steps undertaken for registering the project as CDM project activity. The DOE has therefore raised clarification request under finding B8 in line with EB 55 Annex 1, § 102(a).</p> <p><i>Conclusion:</i> finding B8 has been raised by the DOE.</p>	/PDD/ /MD/	finding B8	OK
<p>B.4.2.7. How was the CDM involved in the decision making process?</p> <p>(EB 55 Annex 1, § 102)</p> <p><i>Describe why CDM was a decisive factor in the decision making process.</i></p>	<p><i>Description:</i> The CDM is involved in the decision making process. However, the DOE has raised finding B8 and finding B10.</p> <p><i>Justification of evidences:</i> Partners of M/s Shah Promoters & Developers have considered benefits of CDM during the meeting held on 01.03.2008 and same is verified by the</p>	/PDD/ /MD/	finding B8, finding B10	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p>DOE. That the CDM benefits were the decisive factor in the decision to go ahead with the investment is enshrined in the resolution passed by the Partners. However, the PP has not provided the various steps undertaken by the project proponent for implementation of the project activity parallel to the steps undertaken for registering the project as CDM project activity. The DOE has therefore raised clarification request under finding B8 and finding B10 in line with EB 55 Annex 1, § 102 and para 6(b) of Annex 22 of EB 49.</p> <p><i>Conclusion:</i> finding B8 and finding B10 has been raised by the DOE.</p>			
<p>B.4.2.8. Do the evidences provided doubtlessly prove that continuous and real actions were taken in order to secure the CDM status?</p> <p>(EB 55 Annex 1, § 102; EB 49 Annex 22 § 7)</p>	<p><i>Description:</i> The DOE has raised finding B8 and finding B10.</p> <p>8.1.4</p> <p><i>Justification of evidences:</i></p> <p>Extract of clarification request raised under finding B8:</p> <ol style="list-style-type: none"> 1. Chronology of events given in section B.5. may be restricted to demonstrating the fulfilment of the conditions stipulated vide Annex 22 of EB 49. <p>Extract of clarification request raised under finding B10:</p> <ol style="list-style-type: none"> 5. If the CDM benefits were considered imperative for the viability of the project, it may be explained as to how the project participant committed funds to the project in advance of receiving even a positive validation opinion. 6. It may be clarified how the CDM revenues were considered essential to overcome the investment barrier to 	<p>/PDD/ /MD/</p>	<p>finding B8, finding B10</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p>this project activity, in particular that the benchmark represents a rate below which the investment could not be made</p> <p><i>Conclusion:</i> finding B8 and finding B10 has been raised by the DOE.</p>			
<p>B.4.2.9. Is the gap of documented evidences to secure the CDM status less than 3 years and are the evidences relevant for substantiating the action taken, credible, reliable and complete?</p> <p>(EB 49 Annex 22 § 8)</p>	<p><i>Description:</i> The DOE has raised finding B8.</p> <p><i>Justification of evidences:</i></p> <p>Extract of clarification request raised under finding B8:</p> <ol style="list-style-type: none"> 1. Chronology of events given in section B.5. may be restricted to demonstrating the fulfillment of the conditions stipulated vide Annex 22 of EB 49. <p><i>Conclusion:</i> finding B8 has been raised by the DOE.</p>	<p>/PDD/ /MD/</p>	<p>finding B8</p>	<p>OK</p>
<p>B.4.2.10. Did implementation of the project ceased after its commencement and did implementation recommence after consideration of the CDM?</p> <p>(EB 51 Annex 58, § 7)</p> <p><i>Describe the reasons for ceasing the project and explain why the incentive from CDM was necessary to recommence the implementation.</i></p>	<p><i>Description:</i></p> <p>Not applicable as it is a 'new project activity' as per Annex 22, EB 49</p> <p><i>Justification of evidences:</i></p> <ul style="list-style-type: none"> • PDD • Management Decision <p><i>Conclusion:</i> The project activity complies with the requirement.</p>	<p>/PDD/ /MD/</p>	<p>OK</p>	<p>OK</p>
<p>B.4.2.11. Can the CDM involvement in the decision assessed as serious?</p>	<p><i>Description:</i> Yes, the CDM benefits were decisive factor in the decision to go ahead with the project and this is vouched by</p>	<p>/PDD/ /MD/</p>	<p>finding B10</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p><i>Describe whether or not the project would have been undertaken without the incentive of the CDM.</i></p> <p>(EB 55 Annex 1, § 104(b)–(c))</p>	<p>the resolution dated 2008/03/01 of the Partners submitted by PP. However, the DOE has raised finding B10.</p> <p><i>Justification of evidences:</i></p> <p>Extract of clarification request raised under finding B10:</p> <p>5. If the CDM benefits were considered imperative for the viability of the project, it may be explained as to how the project participant committed funds to the project in advance of receiving even a positive validation opinion.</p> <p>6. It may be clarified how the CDM revenues were considered essential to overcome the investment barrier to this project activity, in particular that the benchmark represents a rate below which the investment could not be made</p> <p><i>Conclusion:</i> finding B10 has been raised by the DOE</p>			
<p>B.4.3. Identification of alternatives Step 1 (in case of SSC projects pl. skip steps 1 and 2 if appropriate)</p>				
<p>B.4.3.1. Does the list of alternatives contain the status-quo situation, the project not undertaken as a CDM project as well as all other viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?</p> <p>(EB 55 Annex 1, §§ 105–107)</p> <p><i>Describe the steps taken to validate this issue on the basis of your local and sectoral knowledge.</i></p>	<p><i>Description:</i> Not applicable, being a small scale.</p> <p><i>Justification of evidences:</i> Not applicable, being a small scale.</p> <p><i>Conclusion:</i> No further action required.</p>		OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.4.3.2. Have all realistic alternatives been identified to the project?</p> <p>(EB 55 Annex 1, §§ 105–107)</p> <p><i>Describe whether the list of alternatives is credible and complete. Describe how it is validated that the alternatives are realistic.</i></p>	<p><i>Description:</i> Not applicable, being a small scale.</p> <p><i>Justification of evidences:</i> Not applicable, being a small scale.</p> <p><i>Conclusion:</i> No further action required.</p>		OK	OK
<p>B.4.3.3. Do all identified alternatives comply with enforced legislations?</p> <p>(EB 55 Annex 1, §§ 106(c))</p> <p><i>Describe the steps taken to validate this issue. Refer to the legislations.</i></p>	<p><i>Description:</i> Not applicable, being a small scale.</p> <p><i>Justification of evidences:</i> Not applicable, being a small scale.</p> <p><i>Conclusion:</i> No further action required.</p>		OK	OK
<p>B.4.4. Investment analysis Step 2</p> <p><i>In case the investment analysis as per step 2 is chosen to justify the additionality Annex 2 "Assessment of Financial Parameters" has to be used to provide additional details of the the calculation parameters..</i></p>				
<p>B.4.4.1. Does the PDD provide evidence that the project would not be the most economically or financially attractive alternative or economically / financially feasible without the revenues from the sale of CERs?</p> <p>(EB 55 Annex 1, § 108)</p>	<p><i>Description:</i> The additionality of the project is demonstrated using <i>Attachment A to Appendix B</i> (additionality tool for small scale project activities) read with Annex 34 of EB 35 and Guidance given vide Annex 58 of EB 51. However, the assessment team has raised finding B3, finding B7, finding B9 in form of CAR and finding B8, finding B10 in form of CL has been raised.</p>	<p>/ADD/ /PDD/ /TA/</p>	<p>finding B3, finding B7, finding B9, finding</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p><i>Justification of evidences:</i> Please refer finding B3, finding B7, finding B9 in form of CAR and finding B8, finding B10 in form of CL.</p> <p><i>Conclusion:</i> Following finding B3, finding B7, finding B9 in form of CAR and finding B8, finding B10 in form of CL has been raised.</p>		B8, finding B10	
<p>B.4.4.2. Is an appropriate analysis method chosen for the project (simple cost analysis, investment comparison analysis or benchmark analysis)?</p> <p>(EB 55 Annex 1, § 108; EB 39 Annex 10)</p> <p><i>Describe why the selected analysis method is appropriate under consideration of potential revenues and costs, potential project alternatives and potential available benchmark values.</i></p>	<p><i>Description:</i> PP has chosen benchmark analysis</p> <p><i>Justification of evidences:</i> Since the project activity would be earning revenue from the sale of power to the grid, simple cost analysis cannot be applied. Of the remaining two analyses, PP has chosen benchmark analysis, which conforms to Guidance 16 of Annex 58 of EB 51. Hence, the DOE confirms that appropriate analysis method chosen for the project in line with stipulations laid under EB 55 Annex 1, § 108.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /TA/	OK	OK
<p>B.4.4.3. Is a clear, viewable and unprotected Excel spreadsheet available for the investment calculation?</p> <p>(EB 55 Annex 1, § 110; EB 51, Annex 58, §8)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> Yes, a clear and viewable and unprotected excel spread sheet on investment calculations has been submitted by PP.</p> <p><i>Justification of evidences:</i> Yes, a clear and viewable and unprotected excel spread sheet on investment calculations has been submitted, which form part of the submission. Furthermore, the assessment team confirms that latest version of the “Guidance on the Assessment of Investment Analysis” has been applied by the PP. Hence, the DOE</p>	/PDD/ /IRR/ /TA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	confirms that a clear, viewable and unprotected Excel spreadsheet available for the investment calculation is submitted in line with stipulations laid under EB 55 Annex 1, § 110. <i>Conclusion:</i> No CAR/ CL is necessary.			
B.4.4.4. Does the period chosen for the investment analysis reflect the technical lifetime of the project activity or in case a shorter period is chosen, is the fair value of the project activity's assets at the end of the investment analysis period (as a cash inflow) included? (EB 55 Annex 1, § 109; EB 51 Annex 58 § 3 – 4) <i>Describe how the technical lifetime / period chosen for calculating financial parameter(s) is reviewed and which documents were utilised in the course of review. Describe furthermore the approach used to check the inclusion of a potential fair value.</i>	<i>Description:</i> Yes, the period chosen for the investment analysis reflects the technical lifetime of the project activity and fair value of the project activity's assets is included at the end of the investment analysis period. <i>Justification of evidences:</i> Yes, the projection has been submitted for a period of 20 full years of operation, which is the technical life time of the project as per the information furnished by the machinery supplier (conformity to Annex 15 of EB 50). This also conforms to the operating life time fixed by MERC in its order dated November, 2003. 5% of the cost has been considered as salvage value at the end of the investment analysis period as cash inflow. <i>Conclusion:</i> No CAR/ CL is necessary.	/PDD/ /IRR/ /TA/	OK	OK
B.4.4.5. Is the (remaining) technical lifetime of existing or project equipment defined in accordance with the guidance of the <i>Tool to determine the remaining lifetime of equipment?</i> (EB 50 Annex 15)	Not applicable as it is a green field project	/PDD/	OK	OK
B.4.4.6. Is the fair value calculated in accordance	<i>Description:</i> Finding B7 in form of CAR has been raised.	/PDD/	finding	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>with local accounting regulations (where available) or international best practice?</p> <p>(EB 55 Annex 1, § 109; EB 51 Annex 58, § 4)</p> <p><i>State the accounting regulations applied for calculating the fair value and describe why these are applicable under the project specific circumstances. Describe potential mismatches between regulations and the approach applied for calculating the fair value.</i></p>	<p><i>Justification of evidences:</i> Since the entire plant and machinery has been fully written off, 5% of the value of plant and machinery has been taken as the fair value in the terminal year, which is in conformity with local accounting practices. However, the land cost amortization was not considered appropriate. Hence, the following CAR has been raised.</p> <p><u>Extract of finding B7</u></p> <p>6. Amortizing land lease charges over 30 years is not acceptable as the life of the project is stated to be only 20 years vide Sec. C.1.2.</p> <p><i>Conclusion:</i> Finding B7 in form of CAR has been raised</p>	<p>/TA/ /IRR/</p>	<p>B7</p>	
<p>B.4.4.7. Is the book value as well as the expectation of the potential profit or loss included in the fair value calculation?</p> <p>(EB 55 Annex 1, § 109; EB 51 Annex 58, § 4)</p>	<p><i>Description:</i> Finding B7 in form of CAR has been raised.</p> <p><i>Justification of evidences:</i> Since the entire plant and machinery has been fully written off, 5% of the value of plant and machinery has been taken as the fair value in the terminal year, which is in conformity with accounting practices. However, the land cost amortization was not considered appropriate. Hence, the following CAR has been raised.</p> <p><u>Extract of finding B7</u></p> <p>6. Amortizing land lease charges over 30 years is not acceptable as the life of the project is stated to be only 20 years vide Sec. C.1.2.</p> <p><i>Conclusion:</i> Finding B7 in form of CAR has been raised</p>	<p>/PDD/ /TA/ /IRR/</p>	<p>finding B7</p>	<p>OK</p>
<p>B.4.4.8. Are depreciation and other non-cash</p>	<p><i>Description:</i> Finding B7 and B9 in form of CAR and finding B8</p>	<p>/IRR/</p>	<p>finding</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>related items added back to net profits for the purpose to calculate the financial indicator?</p> <p>(EB 55 Annex 1, § 109; EB 51 Annex 58, § 5)</p>	<p>in form of CL has been raised</p> <p><i>Justification of evidences:</i></p> <p><u>Extract of finding B7</u></p> <ol style="list-style-type: none"> 1. Amortizing land lease charges over 30 years is not acceptable as the life of the project is stated to be only 20 years vide Sec. C.1.2 7. Though it does not affect additionality, for partnership firms, book depreciation is not normally provided as it has no significance <p><u>Extract of finding B8</u></p> <ol style="list-style-type: none"> 4. Restricting the book depreciation to 95% of the asset value, artificially creates a realizable value for assets, which does not seem to be the objective of the guidance given vide Annex 45 of EB 41 <p><u>Extract of finding B9</u></p> <ol style="list-style-type: none"> 1. IT depreciation has been provided on 7 WEGs in 2008-09, while as per PDD only 3 WEGs commenced generation on 31.3.2009 and 4 WEGs on 1.4.2009. This does not seem to be in conformity with IT Act. 2. Evacuation deposit accounting does not appear to be correct in as much as 2 WEGs were commissioned in July 2009 and hence the refund of their evacuation deposit will not commence in 2009-10, but 2010-11. This should be checked and mistake, if any, should be 	<p>/PDD/ /TA/</p>	<p>, B7, finding B8, finding B9</p>	

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	rectified <i>Conclusion:</i> Finding B7 and B9 in form of CAR and finding B8 in form of CL has been raised			
B.4.4.9. Is taxation excluded in the investment analysis or is the benchmark intended for post tax comparisons? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 5)	<i>Description:</i> Please refer the extract of finding B8. <i>Justification of evidences:</i> Benchmark is intended for post tax comparison and hence taxation has been included as an expense in conformity with guidance (5) of Annex 58 of EB 51. However, as there was a mistake in the tax computation, the following CL was raised <u>Extract of finding B9</u> 5. It may be clarified under which Section of Income Tax Act, depreciation is restricted to 95% of the value of the asset <i>Conclusion:</i> Finding B9 in form of CAR has been raised.	/IRR/ /PDD/ /TA/	finding B9	OK
B.4.4.10. Were the input values used in the investment analysis valid and applicable at the time of the investment decision? (EB 55 Annex 1, § 109,112; EB 51 Annex 58, § 6) <i>In case the basis for input values is a Feasibility Study Report (FSR) describe how it has been ensured that the period in time between the finalisation of the FSR and the investment decision is sufficiently short so that it is unlikely that input values would have materially changed. Further confirm the consistency of values in FSR and PDD.</i>	<i>Description:</i> Input values are based on Purchase Orders and loan terms are based on loan sanction letter. The computation was not consistent. Please refer below findings: <i>Justification of evidences:</i> <u>Extract of finding B7</u> 1. The generation assumed should be machinery supplier guaranteed generation or the PLF recommended by MERC, whichever is higher. 2. From the PDD (as well as PPA), it appears that only 7 windmills commenced generation – 3 on 31.3.2009 and 4 on 1.4.2009. But projections have been given for 9 windmills	/IRR/ /PDD/ /TA/	finding B7, finding B8, finding B10	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p>from 31.3.2009. Generation, revenue and the cost computation should be consistent with the commencement of WEGs.</p> <p>3. Provision of O&M cost does not appear to be correct. As the 3 WEGs were commissioned on 31.3.2009 and 4 on 1.4.2009, no O&M charges are payable during 2009-10 as there is one year free O&M service. The first payment will commence only in 2010-11.</p> <p>4. The O&M cost considered is for 9 windmills, while only 7 windmills have been commissioned</p> <p>5. Providing full insurance premium in the first year of operation, when the windmill operated for only one day is neither in conformity with accepted accounting principles, nor acceptable</p> <p>8. Interest calculation for the year 2011-12 does not appear to be correct. This may be checked and corrected</p> <p><u>Extract of finding B8</u></p> <p>6. O&M cost should be in conformity O&M agreement entered into with machinery supplier. Inclusion of any cost other than O&M cost as evidenced by the O&M agreement is not acceptable</p> <p><u>Extract of finding B10</u></p> <p>1. Deration has been provided for only 3 WEGs. It may be confirmed that deration is not needed for the remaining 6 WEGs.</p>			

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<i>Conclusion:</i> Finding B7 in form of CAR and finding B8 and B10 in form of CL has been raised			
B.4.4.11. Is the plant load factor (PLF) chosen in a conservative manner, taking into account that the PLF may be different in the framework of demonstrating additionality and calculating the ex-ante ER? (EB 48, Annex 11)	<i>Description:</i> The PLF has been chosen in conservative manner based on the loan application submitted to the bank. <i>Justification of evidences:</i> Copy of loan application submitted to the bank based 13 January 2009. <i>Conclusion:</i> PLF assumed in additionality demonstration is based on loan application submitted to bank however, please see finding CAR B3 and B7.	/IRR/ /ADD/	finding B3, finding B7	OK
B.4.4.12. In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of project IRR? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 9)	<i>Description:</i> NA, PP has opted for equity IRR in the webhosted PDD. <i>Justification of evidences:</i> PP has opted for equity IRR in the webhosted PDD, however the appropriateness of the applied financial indicator was assessed and finding B3 and B8 were raised. <i>Conclusion:</i> Finding B3 and B8 are raised during the course of validation.	/IRR/ /PDD/ /ADD/	finding B3, finding B8	OK
B.4.4.13. In cases where a post-tax benchmark is applied please ensure that actual interest payable is taken into account in the calculation of income tax.	<i>Description:</i> Loan repayment and interest have been excluded from the calculation of project IRR. <i>Justification of evidences:</i> The worksheet and the loan sanction letter issued by Bank of India dated 14 March 2009.	/IRR/ /PDD/ /ADD/	finding B3, finding B8	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 51 Annex 58, § 11) <i>As per the guidance it is recommended to select a pre tax benchmark in order to Describe the steps taken in assessing this requirement.</i>	<i>Conclusion:</i> Loan repayment and interest have not been treated as costing financial indicator calculation. However, please see finding to CAR B7.			
B.4.4.14. In case of equity IRR: Is the part of the investment costs, which is financed by equity considered as net cash outflow and is the part financed by debt excluded in net cash outflow? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 10)	<i>Description:</i> PP had used equity IRR to demonstrate additionality. Since this did not appear to be appropriate, following CL was raised <i>Justification of evidences:</i> <u>Extract of finding B8 :</u> 2. Justifying the use of equity IRR, “because this was the measure used by the Project Proponent while making this investment decision” is not an acceptable argument PP should clarify how equity IRR is suitable for demonstrating additionality for this project activity. <i>Conclusion:</i> finding B8 in form of CL has been raised.	/IRR/ /PDD/ /TA/	finding B8	OK
B.4.4.15. Is the type of benchmark chosen appropriate for the type of IRR calculated (e.g. local commercial lending rates or weighted average costs of capital for project IRR; required/expected returns on equity for equity IRR)? (EB 55 Annex 1, § 111; EB 51 Annex 58, §§12 – 15) <i>In case risk premiums are applied precisely describe its suitability to reflect the risks associated with the project activity, considering</i>	<i>Description:</i> PP had used equity IRR to demonstrate additionality. Since this did not appear to be appropriate, following CL was raised <i>Justification of evidences:</i> <u>Extract of finding B8 :</u> 2. Justifying the use of equity IRR, “because this was the measure used by the Project Proponent while making this investment decision” is not an acceptable argument PP	/IRR/ /PDD/ /TA/	finding B8	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>the project type and market situation.</i>	should clarify how equity IRR is suitable for demonstrating additionality for this project activity. <i>Conclusion:</i> finding B8 in form of CL has been raised.			
<p>B.4.4.16. Is the benchmark value suitable for the project activity and is it reasonable to assume that no investment would be made at a rate of a lower return than the benchmark?</p> <p>(EB 55 Annex 1, § 109; EB 51 Annex 58, §§13 – 15) <i>Describe whether it is reasonable to assume that a lower rate of return would consequently result in the baseline scenario.</i></p>	<p><i>Description:</i> PP had used equity IRR to demonstrate additionality. Since this did not appear to be appropriate, following CL was raised</p> <p><i>Justification of evidences:</i></p> <p><u>Extract of finding B8 :</u></p> <p>2. Justifying the use of equity IRR, “because this was the measure used by the Project Proponent while making this investment decision” is not an acceptable argument PP should clarify how equity IRR is suitable for demonstrating additionality for this project activity.</p> <p><i>Conclusion:</i> finding B8 in form of CL has been raised. Validation team also observed that the financial indicator with CDM benefits exceeds the benchmark which proves that CDM benefits are very much necessary for the PP to achieve the benchmark return. IN the above background, validation team concludes that it would be reasonable to assume that no investment would have been made at a rate of a lower return than the benchmark.</p>	/IRR/ /PDD/ /TA/	finding B8	OK
B.4.4.17. Is it ensured that the project cannot be developed by other developers than the PP?	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> Project can be developed by developers other than PP. It is for this reason that internal</p>	/PDD/ /UNFCCC/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1 § 109; EB 51 Annex 58, §§ 13 – 14) <i>Describe why the benchmark does not include the subjective profitability expectations or risk profile of the project developer. If applicable assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects.</i>	benchmark was not used to demonstrate additionality <i>Conclusion:</i> No CAR/ CL is necessary.			
B.4.4.18. Was the benchmark consistently used in the past for similar projects with similar risks? (EB 55 Annex 1, § 112(c))	<i>Description:</i> Not applicable for the reasons stated above <i>Justification of evidences:</i> Please refer comments made under B.4.4.14. <i>Conclusion:</i> No CAR/ CL is necessary.	/PDD/ /UNFCCC/	OK	OK
B.4.4.19. Does the PDD and related spreadsheets contain a sensitivity analysis and does the same contain variation of parameters which may vary throughout the project lifetime, (EB 55 Annex 1, §§ 109–110(e); EB 51 Annex 58, § 17–18) <i>Describe relevance of parameters used in the sensitivity analysis as well as their likelihood to vary during the project's lifetime. Parameters which are fixed on the basis of contracts, PPAs etc. may not be subject to variation and not adequate.</i>	<i>Description:</i> Please refer finding B7. <i>Justification of evidences:</i> <u>Extract of finding B7</u> 10. Sensitivity analysis may be restricted to 10% variation on either side only. 5% variation may be removed. Furthermore, O & M cost should be subjected to sensitivity analysis. <i>Conclusion:</i> Finding B7 in form of CAR has been raised.	/PDD/ /UNFCCC/	finding B7	OK
B.4.4.20. Were only variables that constitute more than 20% of either total project costs or total project revenues subjected to reasonable variation?	<i>Description:</i> No. Besides variables that constitute more than 20% of the total project costs or revenues, DOE has raised finding B7. <u>Extract of finding B7</u>	/PDD/ /UNFCCC/	finding B7	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, § 109; EB 51 Annex 58, § 17)	10. Sensitivity analysis may be restricted to 10% variation on either side only. 5% variation may be removed. Furthermore, O & M cost should be subjected to sensitivity analysis. <i>Justification of evidences :</i> Finding B7 in form of CAR has been raised. <i>Conclusion:</i> Finding B7 in form of CAR has been raised.			
B.4.4.21. Have parameters, constituting less than 20% of total project costs or revenues, been identified with potential material impact on the financial parameter? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 17) <i>Describe whether those parameters are considered in the sensitivity analysis?</i>	<i>Description:</i> Please see the description given vide B.4.4.17 above <i>Justification of evidences:</i> Please see the justification given vide B4.4.17 above <i>Justification of evidences :</i> Finding B7 in form of CAR has been raised.	/PDD /UNFCCC/ C/	finding B7	OK
B.4.4.22. Is the range of variation reasonable in the specific context of the project activity, taking into consideration historic trends in the business sector? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 18) <i>Describe whether the range of variation is appropriate with focus on historic developments, e.g. price of oil / labour etc., energy potential in the region in question.</i>	<i>Description:</i> Yes, PLF and O&M cost have been subjected to 10% variation and the project cost to 5% variation. Variation by 5% has been considered appropriate because the PP had already placed the orders and the WEGs have been installed based on the cost given in the quotation. <i>Justification of evidences:</i> MEDA publication reveals that the WEGs in Maharashtra have not achieved even 20% PLF. Hence, 10% variation in PLF over and above 20% is acceptable. O&M agreement provides for 5% yearly escalation. Hence, 10% variation is quite conservative. Project cost variation is hypothetical since order has already been placed at the stated cost and the WEGs have been	/PDD /UNFCCC/ C/	finding B7	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	installed and commissioned. <i>Conclusion:</i> Finding B7 in form of CAR has been raised.			
B.4.5. Barrier analysis Step 3 or SSC additionality assessment				
<p>B.4.5.1. Are there any barriers given which have a clear and direct impact on the financial returns of the project?</p> <p>(EB 55 Annex 1, §§ 115, 134, 137)</p> <p><i>In case of LSC projects those issues cannot be considered as barriers and shall be assessed in the investment analysis. In case of SSC projects the same fundamentals as for LSC projects shall apply, i.e. the assessment of the investment barrier according to EB 51 Annex 58.</i></p>	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /AMS I.D/	OK	OK
<p>B.4.5.2. Are the barriers described risk related (e.g technology failure, other performance related risks)?</p> <p>(EB 55 Annex 1, §§ 116, 134, 137)</p> <p><i>Are there other barriers or barriers due to prevailing practice existent which would have led to higher emissions?</i></p>	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /UNFCC/	OK	OK
<p>B.4.5.3. Has the unavailability of means of finance for the project been described and adequately substantiated? Do evidences doubtlessly prove that the financing of the project was assured only due to the benefit of the CDM?</p>	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /UNFCC/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 116, 137, EB 50 Annex 13, § 9)				
B.4.5.4. How is it justified and evidenced that the barriers given in the PDD are real? (EB 55 Annex 1, § 116(a))	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /UNFCC/	OK	OK
B.4.5.5. How is it justified that one or a set of real barriers prevent(s) the implementation of the project activity and do not prevent the implementation of at least one of the alternatives? (EB 55 Annex 1, § 116(b))	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /UNFCC/	OK	OK
B.4.5.6. Does the review of relevant background information on the nature of the company(ies) and entity(ies) involved in the financing and implementation of the project sufficiently justify that the barriers related to the lack of access to capital, technologies and skilled labour are real? (EB 50 Annex 13, § 4)	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /UNFCC/	OK	OK
B.4.5.7. Has it been demonstrated in an objective way how the CDM alleviates each of the identified barriers to a level that the project is not prevented anymore from occurring	<p><i>Description:</i> Not applicable.</p> <p><i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not</p>	/PDD/ /UNFCC/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
by any of the barriers? (EB 50 Annex 13, § 5)	applicable <i>Conclusion:</i> No CAR/ CL is necessary.			
B.4.5.8. Would provision of additional financial means lead to the mitigation of the barrier(s) demonstrated? (EB 50 Annex 13, § 7) <i>Describe why provision of additional financial means would not lead to mitigation of the barrier(s) demonstrated and hence analysing the project's additionality within the framework of an investment analysis is inappropriate. .</i>	<i>Description:</i> Not applicable. <i>Justification of evidences:</i> PP has not used barrier analysis to demonstrate project's additionality. Hence, this is not applicable <i>Conclusion:</i> No CAR/ CL is necessary.	/PDD/ /UNFCC/	OK	OK
B.4.6. Common practice analysis Step 4 (in case of SSC projects skip this step)				
B.4.6.1. Is the defined region for the common practice analysis appropriate for the technology/industry type? (EB 55 Annex 1, § 120(a)) <i>Describe why the project activity is not common practice in a transparent and unambiguous manner. If a region other than the entire host country is chosen, describe why this region is more appropriate.</i>	<i>Description:</i> Not applicable. <i>Justification of evidences:</i> Since it is a small scale project activity, common practice analysis is not mandatory. Neither the common practice has been accepted as barrier preventing the implementation of the project activity. Hence, this is not applicable. <i>Conclusion:</i> No CAR/ CL is necessary.	/PDD/ /TA/	OK	OK
B.4.6.2. To what extent similar projects have been undertaken in the relevant region? (EB 55 Annex 1, § 120(b))	<i>Description:</i> Not applicable. <i>Justification of evidences:</i> Since it is a small scale project activity, common practice analysis is not mandatory. Neither the common practice has been accepted as barrier	/PDD/ /TA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	preventing the implementation of the project activity. Hence, this is not applicable. <i>Conclusion:</i> No CAR/ CL is necessary.			
B.4.6.3. In case similar projects are identified, are there any key differences between the proposed project and existing or ongoing projects and what kind of differences are observed? (EB 55 Annex 1, § 120(c))	<i>Description:</i> Not applicable. <i>Justification of evidences:</i> Since it is a small scale project activity, common practice analysis is not mandatory. Neither the common practice has been accepted as barrier preventing the implementation of the project activity. Moreover, the project developer has not relied upon common practice analysis to demonstrate additionality. Only the domination of fossil fuel based power generation in the country has been demonstrated with published statistics. Hence, this is not applicable. <i>Conclusion:</i> No CAR/ CL is necessary.	/PDD/ /TA/	OK	OK
B.5. Ex-Ante Calculation of GHG Emission Reductions <i>It is assessed whether the ex-ante calculations of project emissions, baseline emissions, leakage emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified. Furthermore calculation of emission reductions shall be assessed.</i>				
B.5.1. Are the equations applied correctly according	<input type="checkbox"/> The equations applied for calculation are correctly applied according to the approved methodology.	/PDD/	finding	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>to the applied approved methodology?</p> <p>(EB 55 Annex 1, §§ 67(c), 89–90, 92)</p> <p><i>Describe clearly the steps taken to assess whether the methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. Further take into consideration that all estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.</i></p>	<p><input checked="" type="checkbox"/> The following mistakes have been identified in this context:</p> <p><i>Description:</i> The emission factor is incorrect. Please refer CAR raised under finding B4.</p> <p><i>Justification of evidences:</i> Under section B.6.1 of PDD, a brief write up with reference to “Tool to calculate the emission factor for an electricity system” in the calculation of operating margin emission factor is requested.</p> <p>The formula to calculate the simple OM emission factor and build margin factor needs to be stated with appropriate notations. Furthermore, the computation of CM is incorrect.</p> <p><i>Conclusion:</i> CAR is raised under finding B4.</p>	<p>/TA/ /AMS I.D/</p>	<p>B4</p>	
<p>B.5.2. In case the methodology allows for different methodological choices, are the equations applied properly justified and have they been used reflecting the other methodological choices (i.e. baseline identification)?</p> <p>(EB 55 Annex 1, §§ 90–91)</p> <p><i>Assess the correct selection and application of methodological choices. Describe whether proper justification has been provided (based on the choice of the baseline scenario, context of the project activity and other evidence provided) and whether the correct equations have been used reflecting the relevant methodological choices.</i></p>	<p><i>Description:</i> The project activity follows equations as prescribed by the methodology,</p> <p><i>Justification of evidences:</i> The DOE confirms that only equations as stated in the methodology are used by PP.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	<p>/PDD/ /AMS I.D/</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.5.3. Have conservative assumptions been used when calculating the project emissions?</p> <p>(EB 55 Annex 1, §§ 90–91)</p> <p><i>Describe clearly the steps taken to assess whether all the assumptions and data used by the PP are listed in the PDD including references and sources and are conservatively interpreted in the PDD.</i></p>	<p><i>Description:</i> There are no project emissions associated with project activity.</p> <p><i>Justification of evidences:</i> Since the project activity does not consume fossil fuels for its operation, the DOE confirms that no project emissions associated with project activity.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /AMS I.D/	OK	OK
<p>B.5.4. Does the implementation of the project activity lead to GHG emissions within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission reductions, which are not addressed by the methodology?</p> <p>(EB 55 Annex 1, § 77)</p>	<p><i>Description:</i> There are no project emissions associated with project activity.</p> <p><i>Justification of evidences:</i> Can be cross checked from the PDD.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/AMS I.D/ /PDD/	OK	OK
<p>B.5.4.1. Has a plant load factor (PLF) been defined ex-ante and considered for determination of baseline emissions?</p> <p>(EB 48 Annex 11, §§ 1, 3–4)</p> <p><i>Describe why the PLF is conservative in the framework of calculating emissions reductions and whether the PLF is the same in the framework of demonstrating additionality by applying the investment analysis. Note, in order to be conservative in both cases the PLF may be different.</i></p>	<p><i>Description:</i> Please refer CAR raised under finding B4 and B7.</p> <p><i>Justification of evidences:</i> Please refer CAR raised under finding B4 and B7.</p> <p><i>Conclusion:</i> Finding B4 and B7 has been raised.</p>	/PDD/ /AMS I.D/	finding B4 finding B7	OK
<p>B.5.5. Are all data sources and assumptions appropriate and parameters which remain</p>	<p><i>Description:</i> Please refer CAR raised under finding B4 and B7.</p> <p><i>Justification of evidences:</i> Please refer CAR raised under</p>	/PDD/ /AMS	finding B4	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
fixed throughout the crediting period correct, applicable to the project and will lead to a conservative estimation of emission reductions? (EB 55 Annex 1, § 91) <i>Describe clearly the steps taken to assess whether the values used for the fixed parameters are considered reasonable, correct and applicable in the context of the project activity. Check esp. chapter 6.2 of the PDD.</i>	finding B4 and B7. <i>Conclusion:</i> Finding B4 and B7 has been raised.	I.D/	finding B7	
B.5.6. Are all ex-ante calculation values for monitoring parameters (as defined as per chapter B.7.1) reasonable? (EB 55 Annex 1, § 91) <i>Describe clearly the steps taken to assess whether the values used for the monitoring parameters are considered reasonable, applicable and conservative in the context of the project activity</i>	<input type="checkbox"/> All "Values of data to be applied for the purpose of calculating expected emissions reductions" are considered to be reasonable, applicable and conservative. <input checked="" type="checkbox"/> The following mistakes have been identified in this context: Please refer CAR raised under finding B4 and B6.	/PDD/ /AMS I.D/	finding B4, finding B6	OK
B.5.7. Are the emission reductions real, measurable and give long-term benefits related to the mitigation of climate change. <i>Describe the steps taken to validate this issue.</i>	<i>Description:</i> Not OK - <i>Justification of evidences:</i> Subjected to satisfactory closure of CAR/ CL raised under section B. - <i>Conclusion:</i> CAR/ CL are raised by DOE.	/PDD/ /AMS I.D/	finding B1- B12	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.6. Monitoring of Emission Reductions <i>It is assessed whether the monitoring plan is appropriate for the project activity and in line with the applied methodology.</i>				
<p>B.6.1. Are all monitoring parameters required by the applied methodology contained in the monitoring plan?</p> <p>(EB 55 Annex 1, §§ 67(e), 121, 123(a), 124) <i>Assess whether all applicable parameters listed in the methodology are included in the monitoring plan.</i> <i>Pl. check further whether the selection of parameters not to be monitored (section B.6.2) is appropriate and in line with the applied methodology.</i> <i>In case of different approaches can be chosen acc. to the methodology assess whether the selection of parameters is justified and correct.</i></p>	<p><i>Description:</i> All monitoring parameters required by the applied methodology are not contained in the monitoring plan. Please refer finding B6</p> <p><i>Justification of evidences:</i> During site visit, it is observed that apportioning of the generated electricity is done at the common bulk meter which incorporates parameters like</p> <p>A) Total net electricity supplied to the grid (by all WTGs connected to the substation) measured at the substation.</p> <p>B) Total electricity generation by WTGs owned by PP.</p> <p>C) Total electricity generation by all WTGs connected to the substation feeder.</p> <p>Therefore the PP needs to incorporate them into monitoring plan.</p> <p><i>Conclusion:</i> Please refer finding B6.</p>	/PDD/ /AMS I.D/	finding B6	OK
<p>B.6.2. Are the means of monitoring of all parameters contained in the monitoring plan feasible and in accordance with the requirements of the</p>	<p><i>Description:</i> Please refer to the CAR raised under finding B6.</p>	/PDD/ /AMS	finding B6	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>applied methodology?</p> <p>(EB 55 Annex 1, § 123(a)–(b), 124)</p> <p><i>Assess whether the provided information for all parameters w.r.t.</i></p> <ul style="list-style-type: none"> a) <i>Label (name of the data / parameter)</i> b) <i>data unit</i> c) <i>description</i> d) <i>source of data</i> e) <i>measurement equipment / method / procedure</i> f) <i>monitoring frequency</i> g) <i>QA/QC procedures</i> <p><i>are appropriately described and in compliance with the requirements of the methodology..</i></p>	<p><i>Justification of evidences:</i></p> <p>Under section B.7.1 of PDD, mention the industry standards referred or procedures adopted for measurement however fails to define them.</p> <p>The roles and responsibilities of monitoring personnel needs to be addressed.</p> <p>Accuracy and calibration procedure needs to be stated under section B.7.1.</p> <p>During site visit, it is observed that apportioning of the generated electricity is done at the common bulk meter which incorporates parameters like</p> <p>A) Total net electricity supplied to the grid (by all WTGs connected to the substation) measured at the substation.</p> <p>B) Total electricity generation by WTGs owned by PP.</p> <p>C) Total electricity generation by all WTGs connected to the substation feeder. Therefore the PP needs to incorporate them into monitoring plan.</p> <p><i>Conclusion: CAR raised under finding B6.</i></p>	I.D/		

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.6.3. Have all means of implementing the monitoring plan, e.g. equations necessary for ex-post emission reduction calculation, been described clearly and in line with the methodology?</p> <p>(EB 55 Annex 1, §§ 123(b), 124)</p> <p><i>Check whether all necessary equations have been provided in the PDD. Pl. consider that ex-post and ex-ante calculations might be different.</i></p> <p><i>Please consider that additional equations might be necessary to calculate auxiliary parameters.</i></p>	<p><i>Description:</i> Please refer CAR raised under finding B6.</p> <p><i>Justification of evidences:</i> Please refer CAR raised under finding B6. The PDD did not clearly mention the apportioning logic.</p> <p><i>Conclusion:</i> Please refer CAR raised under finding B6.</p>	<p>/PDD/ /AMS I.D/</p>	<p>finding B6</p>	<p>OK</p>
<p>B.6.4. Is it likely that the monitoring arrangements described in the PDD can properly be implemented in the context of the project activity?</p> <p>(EB 55 Annex 1, § 124(c))</p> <p><i>Assess whether the described monitoring arrangements are sufficient and realistic to enable a thorough monitoring. Pl. consider also special monitoring conditions, e.g. downtimes of monitoring equipment etc.</i></p>	<p><i>Description:</i> The monitoring arrangement as stated in the PDD is insufficient to capture the net electricity displaced by the project activity. Please refer CAR raised under finding B6.</p> <p><i>Justification of evidences:</i> Please refer CAR raised under finding B6.</p> <p><i>Conclusion:</i> Please refer CAR raised under finding B6.</p>	<p>/PDD/ /AMS I.D/</p>	<p>finding B6</p>	<p>OK</p>
<p>B.6.5. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activit can be reported ex-post and verified?</p> <p>(EB 55 Annex 1, § 124(b))</p>	<p><i>Description:</i> Since, the monitoring arrangement as stated in the PDD is insufficient to capture the net electricity displaced by the project activity the QA/ QC measures are also deemed insufficient. Please refer CAR raised under finding B6.</p>	<p>/PDD/ /AMS I.D/</p>	<p>finding B6</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>Please consider the description given in section B.7.2. Describe which QA/QC provisions are considered. Address Quality Management System provisions, calibration and maintenance of equipment. Address further any review procedures.</i>	<i>Justification of evidences:</i> Please refer CAR raised under finding B6. <i>Conclusion:</i> Please refer CAR raised under finding B6.			
B.6.6. Are procedures identified for data management? (EB 55 Annex 1, § 124(b)) <i>Check whether appropriate provisions are considered for data management including responsibilities, what records to keep, storage area of records and how to process performance documentation</i> <i>Check further the data archiving provisions for the project activity and ensure that provisions are made to archive data for the whole crediting period + 2 years.</i>	<i>Description:</i> Since, the monitoring arrangement as stated in the PDD is insufficient to capture the net electricity displaced by the project activity the procedures identified for data management are also deemed insufficient. Please refer CAR raised under finding B6. <i>Justification of evidences:</i> Please refer CAR raised under finding B6. <i>Conclusion:</i> Please refer CAR raised under finding B6.	/PDD/ /AMS I.D/	finding B6	OK
C. Duration of the Project/ Crediting Period <i>It is assessed whether the temporary boundaries of the project are clearly defined.</i>				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>C.1. Is the project's starting date clearly defined and evidenced?</p> <p>(EB 55 Annex 1, § 99)</p> <p><i>Check whether the starting date is correct. Apply the definition of the project starting date as per the "Glossary of CDM terms".</i></p>	<p><i>Description:</i> Yes, the start date of project activity is based on the date of release of PO.</p> <p><i>Justification of evidences:</i> PO is made available to DOE.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /SD/ /PO/	OK	OK
<p>C.2. Is the project's operational lifetime clearly defined and evidenced?</p> <p><i>Check whether the project lifetime is correctly defined. Consider the guidance on the assessment of investment analysis (annex to the additionality tool).</i></p> <p><i>Check in case of phased implementation this has been reflected throughout the whole PDD incl. the financial assessment, if applicable.</i></p>	<p><i>Description:</i> The project's operational lifetime clearly defined and evidenced.</p> <p><i>Justification of evidences:</i> Technical specification mentioning the operational lifetime is made available to the DOE.</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /PO/ /TD/	OK	OK
<p>C.3. Is the start of the crediting period clearly defined and reasonable?</p> <p><i>Check whether the envisaged starting date of the crediting period is realistic, taking into consideration the times needed for validation and registration.</i></p>	<p><i>Description:</i> Please refer finding C1.</p> <p><i>Justification of evidences:</i> Under section C.2.2.1 of PDD, the PP needs to provide reasonable starting date of crediting period</p> <p><i>Conclusion:</i> CAR has been raised under finding C1</p>	/PDD/	finding C1	OK
<p>D. Environmental Impacts</p> <p><i>Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an</i></p>				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>EIA should be provided to the DOE.</i>				
<p>D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA)?</p> <p>(EB 55 Annex 1, §§ 131–133)</p> <p><i>Check the host party regulations, regarding EIA.</i></p>	<p><i>Description:</i> There are no host country requirements for EIA.</p> <p>–</p> <p><i>Justification of evidences:</i> The wind based project activities does not fall under the purview of Environmental Impact Assessment notification (dated 14th September, 2006) released by the Ministry of Environment and Forests (MoEF), Government of India (GOI).</p> <p>–</p> <p><i>Conclusion:</i> No CAR/ CL is necessary.</p>	/PDD/ /moef/	OK	OK
<p>D.1.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been carried out and if applicable duly approved?</p> <p>(EB 55 Annex 1, §§ 131–133)</p> <p><i>Check the EIA and its approval, if applicable.</i></p>	<p><i>Description:</i> Please refer corresponding comments under D.1.1</p> <p>–</p> <p><i>Justification of evidences:</i> Please refer corresponding comments under D.1.1.</p> <p>–</p> <p><i>Conclusion:</i> Please refer corresponding comments under D.1.1.</p>	/PDD/ /moef/	OK	OK
<p>D.1.3. Has an analysis of the environmental impacts of the project activity been sufficiently described and in line with the host party environmental legislation?</p> <p>(EB 55 Annex 1, §§ 130–132)</p> <p><i>Check the PDD (section D). Check whether the project will create any adverse environmental effects.</i></p>	<p><i>Description:</i> Please refer corresponding comments under D.1.1.</p> <p>–</p> <p><i>Justification of evidences:</i> Please refer corresponding comments under D.1.1.</p> <p>–</p> <p><i>Conclusion:</i> Please refer corresponding comments under D.1.1.</p>	/PDD/ /moef/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>Check the relevant national environmental legislation.</i>				
<p>D.1.4. Are transboundary environmental impacts considered in the analysis?</p> <p>(EB 55 Annex 1, §§ 131–133)</p> <p><i>Check the documents and local official sources / expertise regarding transboundary environmental impacts.</i></p>	<p><i>Description:</i> Please refer corresponding comments under D.1.1.</p> <p><i>Justification of evidences:</i> Please refer corresponding comments under D.1.1.</p> <p><i>Conclusion:</i> Please refer corresponding comments under D.1.1.</p>	/PDD/ /moef/	OK	OK
<p>E. Stakeholder Comments</p> <p><i>The DOE should ensure that stakeholder comments have been invited with appropriate media and that due account has been taken of any comments received.</i></p>				
<p>E.1. Have relevant local stakeholders been invited to consultation prior to the publication of the PDD?</p> <p>(EB 55 Annex 1, § 128)</p> <p><i>Check by means of document review and interviews with local stakeholders if and when a local stakeholder consultation process has been carried out.</i></p>	<p><i>Description:</i> Please refer CAR raised under finding E1.</p> <p><i>Justification of evidences:</i> Under section E.1 of PDD, the stakeholders meeting held was on very short notice to address any comments by stakeholders. Hence the meeting seems to be an eyewash for the sake of local people without a genuine intention of reaching out to people.</p> <p><i>Conclusion:</i> CAR raised under finding E1</p>	/PDD/	finding E1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>E.2. Can the local stakeholder consultation process be assessed as adequate? (EB 55 Annex 1, § 129(a)–(c))</p> <p><i>Describe what assessment steps have been undertaken to assess the adequacy of the stakeholder consultation process. Give a final opinion on the adequacy.</i></p> <p><i>Please consider the following requirements in this context:</i></p> <p><i>(a) Comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity, have been invited;</i></p> <p><i>(b) The summary of the comments received as provided in the PDD is complete;</i></p> <p><i>(c) The project participants have taken due account of any comments received and have described this process in the PDD.</i></p>	<p><i>Description:</i> Please refer CAR raised under finding E1.</p> <p><i>Justification of evidences:</i> Under section E.1 of PDD, the stakeholders meeting held was on very short notice to address any comments by stakeholders. Hence the meeting seems to be an eyewash for the sake of local people without a genuine intention of reaching out to people.</p> <p><i>Conclusion:</i> CAR raised under finding E1</p>	/PDD/	finding E1	OK

ANNEX 2: ASSESSMENT OF BASELINE IDENTIFICATION

Table A-2: Assessment of Baseline Identification (EB 51 Annex 3, §§ 82 – 85)

<input type="checkbox"/>	Baseline is not identified
<input checked="" type="checkbox"/>	Assessment of baseline see below

Baseline Alternatives identified	Inline with the Methodology?	Eliminated	Reasons for elimination / non-elimination from list of alternatives	Evidence used	DOE Assessment	
					Appropriateness of elimination	Assessment of validation team (results and means of assessment)
Not Applicable	Yes	NA	No other alternative is identified for small scale Wind power generation projects as per AMS I.D	/cea/ /AMS I.D/	<input checked="" type="checkbox"/>	The baseline for the project is the kWh produced by the renewable generating unit multiplied by an emission coefficient (measured in kg CO ₂ e/kWh) as per the stipulated methodology AMS.I.D. No alternatives need to be identified for the project activity.

ANNEX 3: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-3: Assessment of Financial Parameters (EB 51 Annex 3, §§110, 111, 113/ in case financial parameters stem from FSR §112,)

<input type="checkbox"/>	No financial parameters are used for additionality justification						
<input checked="" type="checkbox"/>	Assessment of all financial parameters see below						
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	DOE ASSESSMENT		
					Correctness of value applied	Appropriateness of information source	Comment
Project life	20	Years	Purchase Order dated 20/03/2008 (Annexure-1, page 6 of 6)	/PO/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	It is based on the information given by the machinery supplier on the technical life time of the equipment, which conforms to paragraph II (a) of Annex 15, EB 50. Incidentally, this is also in conformity with the operating life given by MERC. Hence, the value considered by PP is correct and appropriate for the project.
Installed Capacity	7.20	MW	Purchase Order dated 20/03/2008	/PO/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The value is based on the Purchase Order placed by the company. Purchase order released by the project developer is for 9 wind mills of 800 KW capacity each, adding up to 7.2 MW. Validation team checked the Purchase Orders and found the number and the capacity to be correct. Therefore, the value is correct and appropriate for the project.

Project cost	4032	Rs. Lakhs	Quotation from Enercon India Limited to PP, Purchase Order dated 20/03/2008	/PO ¹³ / /PO ¹⁻¹² /	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The value is based on the Quotation received, which is the same as the Purchase Order placed by the company. Validation team had checked the data and found value to be correct and appropriate for the project. This yields a cost of Rs.56 mn. per MW. Validation team also checked the cost of other projects for which orders were placed in 2008 and observed that the cost varied between 57.5 mn./MW (REg, No. 3533) to Rs.66.33 mn./MW (Reg. No. 3046). The candidate project has placed order for 800 KW wind mills with Enercon India Ltd. There were two other registered projects employing 800 KW Enercon machines – project No. 3611 and 3533. The cost was Rs.53.22 mn./MW in the case of project No. 3611 (for which order was placed in April 2007 – one year before the candidate project placed order) and Rs.57.50 mn./MW in the case of project No. 3533 (for which order was placed in September 2008). Since the cost is based on POs, and compares well with other projects recently approved (also under validation with DOE), validation team concludes that the project is cost correct, valid and appropriate for the project activity
Loan amount	1500	Rs. Lakhs	Loan sanction letter dt. 14/03/2009, page 1	/SF/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The loan amount is based on loan application submitted and also the sanction letter. Validation team had checked the letter and found the value to be correct and appropriate. The loan amount yields a debt equity ratio of 37:63. Normally , infrastructure projects get a gearing of 70:30. However, the promoters, depending on the cash at their disposal

							choose to finance the entire project by equity or minimal debt. IN this case, the project developer had chosen the second option of going in for minimal debt. Since the amount is backed by loan application and sanction letter, the value is appropriate and correct.
Interest rate	11.25	percent	Loan sanction letter dt. 14/03/2009, page 1	/SF/	☒	☒	Interest is based on loan sanction letter. Validation team had checked the letter and found the value to be correct and appropriate. At the time of decision making the prevailing PLR was 13%. Validation team observed that the financial indicator goes upto 11.19% (as against 11.14%) if the then prevailing PLR were to be used. The project continues to remain additional even in that case.
Repayment holiday	6	Months	Loan sanction letter dt. 14/03/2009, , page 1	/SF/	☒	☒	Repayment holiday is based on loan application and subsequently confirmed by the loan sanction letter. Validation team had checked the letter and found the value to be correct and appropriate
Repayment	30	months	Loan sanction letter dt. 14/03/2009, page 1	/SF/	☒	☒	Repayment is based on loan sanction letter which stipulates repayment of Rs.50 lakhs in 30 months. The value is correct and appropriate
PLF	20	Percent	MERC Tariff Order dt Nov.2003 (paragraph 3.3.2. p.93) and Loan application letter Provided to Bank:	/MERC/ /ADD ² /	☒	☒	The project is financed by Bank of Maharashtra and investment approval has been obtained based on this PLF from submitted to bank. Hence, it conforms to Annex 11 of EB 48. Moreover, WEGs in Maharashtra have not been getting even 20% CUF. Therefore, validation team is convinced that the value applied is correct, conservative and appropriate for the project.

Derating	5	Percent	MERC Tariff Order dt Nov.2003 (paragraph 2.2.3, P.34)	/MERC/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Derating of machinery at 5% after 10 years to take care of reduced performance due to wear and tear has been recommended by MERC. The Order has been checked and found to be correct. The derating provided is valid and appropriate
Insurance premium/WEG	0.52	Rs Lakhs	Premium receipts	/ICN/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Insurance premium is based on the insurance quote issued by "The New India Assurance Company Co". Insurance works out to less than 10 basis points, which is lower than the insurance premium adopted by other projects. The value is therefore conservative, correct and appropriate for the project.
O&M cost per WEG	5.34	Rs Lakhs	Purchase Order dated 20/03/2008	/O&M/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	O&M charges are based on the Purchase Order issued by the company and the O&M agreement entered into by the company with wind mill supplier. The purchase order and O&M agreement have been checked and the value is found to be correct and appropriate for the project.
Escalation in O&M cost	5.00	Percent	Purchase Order dated 20/03/2008	/O&M/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Escalation in O&M cost is based on the Purchase Order issued by the company and subsequently confirmed by the O&M agreement. The Purchase order and O&M agreement have been checked and the value is found to be correct and appropriate for the project
Administrative Expenses with 5% escalation p.a. (for all 9 windmills)	6.00	Re. Lakhs	CA Certificate,	/BAL ² / /ADD ^{8,9} /	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Administrative expenses relate to the salary payable to one officer and two executives for looking after the wind energy business, travel, communication and other expenses related to wind energy business. The provision is

							considered reasonable and appropriate for the project activity having regard to the fact that the company has to have a separate set up for managing the windmills. This is also required to be in conformity with Sec. 80IA of Income Tax Act.
Tariff – Grid sale	3.50	Rs./kWh	MERC Tariff Order dt. Nov. 2003 (paragraph 3.5, p.101) and Power Purchase Agmts. dt. 20.4.2009, 25.04.2009, 26.09.2009	/MERC/ /PPA/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The tariff is based on the MERC tariff order and also evidenced by Power Purchase Agreement. The value is correct and appropriate
Escalation in tariff / year	0.15	Paise/kWh	MERC Tariff Order dt. Nov. 2003 (Paragraph 3.5, p.101) and Power Purchase Agmt. dt. 20.04.2009, 25.04.2009, 26.09.2009	/MERC/ /PPA/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Escalation is based on the MERC tariff order and also evidenced by Power Purchase Agreement. The value is correct and appropriate
Depreciation	80	Percent	Income Tax Act	/ACT/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Depreciation is based on Appendix I of Income Tax Rules. The value is correct and appropriate for the project
Income Tax rate	30.00	Percent	Income Tax Act	/ACT/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Income Tax rate is based on the Income Tax Act of 2007-08. The Value is correct and appropriate for the project
Surcharge	10.00	Percent	Income Tax Act	/ACT/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Surcharge is based on the Income Tax Act of 2007-08. The value is correct and appropriate for the project
Educational Cess	3.00	Percent	Income Tax Act	/ACT/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Educational Cess is based on the Income Tax Act of 2007-08. As verified, the value is correct

							and appropriate for the project
Tax Holiday	10	Years	Income Tax Act	/ACT/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sec. 80IA of Income Tax Act provides for tax holiday in any consecutive 10 years within first 15 years of operation. The application of tax holiday is correct and appropriate
Prime Lending Rate (PLR) – Benchmark	13.00	Percent	Weekly Statistical Supplement of RBI	/RBI/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The PLR pertains to the period in which decision was taken and sourced from RBI website. As verified, the value is correct and appropriate

ANNEX 4: ASSESSMENT OF BARRIER ANALYSIS

Table A-4: Assessment of Barrier Analysis (EB 51 Annex 3, § 117)

<input checked="" type="checkbox"/>		No barrier parameters are used for additionality justification		
<input type="checkbox"/>		Assessment of barriers see below		
Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
			<input checked="" type="checkbox"/>	

ANNEX 5: OUTCOME OF THE GSCP

Table A-5: Outcome of the Global Stakeholder Consultation Process

(§§ 40-42, VVM Version 1.2)

<input checked="" type="checkbox"/>	No comments were received during the global stakeholder consultation period					
<input type="checkbox"/>	Comments were received during the global stakeholder consultation period. The comments (in unedited form) and the consideration/response of the validation team are presented below:					
Comment No.:	Comment by:	Inserted on:	Subject	Comment ^{*)}	Action taken by the validation team to take due account on the comment ^{*)}	Conclusion (incl. CARs CLs or FARs)

^{*)} In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 6: STATEMENTS OF COMPETENCE OF TEAM MEMBERS



CERTIFICATE OF APPOINTMENT

Mr. Manojkumar Borekar
born on 1979-10-14
satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD CDM Senior Assessor

The present appointment will terminate on 2012-12-03
Certification registration No. 09 12 02 -38
Essen, 2009-12-04


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Mr. Swapnil Thanekar
born on 1980-12-11
satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby re-appointed as

TÜV NORD CDM Expert

The present appointment will terminate on 2013-08-18
Certification registration No. 08 09 01 – 47
Initial appointment Expert: 2007-08-17
Essen, 2010-08-19


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Mr. Nareshkumar K. Suneja
born on 1980-03-16
satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD CDM Expert

The present appointment will terminate on 2011-12-15
Certification registration No. 08 12 01 – 64 rev01
Essen, 2008-12-16


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Dr. Atul Takarkhede
born on 1979-09-11
satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD CDM Expert

The present appointment will terminate on 2013-10-17
Certification registration No. 10 10 02 – 189
Essen, 2010-10-18


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Mr. Martin Saalmann

born on 1976-02-23

satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD JI/CDM Senior Assessor

The present appointment will terminate on 2013-03-31
Certification registration No. 10 04 01 – 22

Essen, 2010-04-01


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Mr. Ingo Klein


born on 1973-05-15

satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD CDM Assessor

The present appointment will terminate on 2013-10-17
Certification registration No. 10 10 05 – 122

Essen, 2010-10-18


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Mr. Heiner Lenzian

born on 1983-12-11

satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD CDM Expert

The present appointment will terminate on 2013-12-12
Certification registration No. 10 12 01 – 210

Essen, 2010-12-13


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH



CERTIFICATE OF APPOINTMENT

Mr. Alexander Richter

born on 1983-01-25

satisfies the requirements as specified in the TÜV NORD
JI/CDM CP directives and is hereby appointed as

TÜV NORD CDM Expert

The present appointment will terminate on 2012-11-30
Certification registration No. 09 12 01 - 136

Essen, 2009-12-01


Head of TÜV NORD JI/CDM Certification Program
of TÜV NORD CERT GmbH