VALIDATION REPORT

M/S BINDU VAYU URJA PRIVATE LIMITED (BVUPL)

KALADONGER WIND POWER PROJECT IN RAJASTHAN

Report No: 8108805312-12/218

Date: 2012-12-24

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Validation Report:	***Report No.***	***Rev. No.***	***Date of 1st issue:***	***Date of this rev.***
	8108805312-12/218	0	2012-12-24	2012-12-24
Project:	***Title:***		***Initial PDD Version:***	***Final PDD Version***
	Kaladonger wind power project in Rajasthan		2012-04-05	2012-12-24
Client:	M/s Bindu Vayu Urja Private Limited (BVUPL)		***Client ref:***	Mr. K.S.K. Singaravelan
Project Participant(s):	***Host Party:***		***Other involved parties:***	
	India		No annex-I party is involved at this stage of validation	
Applied methodology/ies:	***Title:***		***No.:***	***Scope / TA:***
	Consolidated baseline methodology for grid-connected electricity generation from renewable sources.		ACM0002, version 12.3.0	1/ 1.2
Validation team / Technical Review and Final Approval	***Validation Team:***		***Technical review:***	***Final approval:***
	Mr. Prasad Jakkaraju (TL/TE) Mr. Jimmy Sah (TM/TE) Mr. Sandip Saha(OT) Ms. Richa Thakur (OT)		Rainer Winter & Samir Beqqal (TR) Hemang Shah (OR)	Rainer Winter
Expected Emission reductions: [t CO_2e]	***Expected emission reductions over the first crediting period:***		***(Expected) project starting date:***	
	1,268,170 t CO_{2e}		2012-12-31	
Confidential content:	☐ Yes		☒ No	
Summary of Validation Opinion:	☒ Positive validation opinion		☐ Negative validation opinion	
	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 (HCA) no. 4/13/2012-CCC dated 2012-11-07. ☒ 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 1,268,170 tCO_2e are most likely to be achieved within the fixed crediting period. ☒ 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.			
Document information:	*Filename:*			*No. of pages:*
	S01-VA010-A1			157

Abbreviations

BAU	Business as usual
BVUPL	Bindu Vayu Urja Private Limited
CA	Corrective Action / Clarification Action
CAPM	Capital Assets Pricing Model
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
DNA	Designated National Authority
EB	CDM Executive Board
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IDFC	Infrastructure Development Finance Company
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
IREDA	The Indian Renewable Energy Development Agency
JVVNL	Jaipur Vidyut Vitran Nigam Limited
PDD	Project Design Document
PLF	Plant Load Factor
PPA	Power Purchase Agreement
QC/QA	Quality control/Quality assurance
RBI	Reserve Bank of India
RERC	Rajasthan Electricity Regulatory Commission
RoE	Return on Equity
SEL	Suzlon Energy Limited

UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual
WTG	Wind Electric Generators

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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.

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	Kaladonger wind power project in Rajasthan		
Project size	☒ Large Scale ☐ Small Scale		
Project Scope *(according to UNFCCC sectoral scope numbers for CDM)*	☒	1	Energy Industries (renewable- /non-renewable sources)
	☐	2	Energy distribution
	☐	3	Energy demand
	☐	4	Manufacturing industries
	☐	5	Chemical industry
	☐	6	Construction
	☐	7	Transport
	☐	8	Mining/Mineral production
	☐	9	Metal production
	☐	10	Fugitive emissions from fuels (solid, oil and gas)
	☐	11	Fugitive emissions from production and consumption of halocarbons and hexafluoride
	☐	12	Solvents use
	☐	13	Waste handling and disposal
	☐	14	Afforestation and Reforestation
	☐	15	Agriculture
Applied Methodology	Consolidated baseline methodology for grid-connected electricity generation from renewable sources (ACM002, ver. 12.3.0)		
Technical Area(s)	1.2 Renewable Energies		
Crediting period	☐ Renewable Crediting Period (7 y) ☒ Fixed Crediting Period (10 y)		
Start of crediting period	2012-12-31 or the date of Registration which ever 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 Bindu Vayu Urja Private Limited (BVUPL)
Other involved party/ies	-	No annex-I country is involved at this stage of validation.

2.3 Project Location

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

Table 2-3: Project Location

No.	Project Location
Host Country	India
Region:	Kaladonger, Jaisalmer
Project location address:	Please find the below table
Latitude:	Please find the below table
Longitude:	Please find the below table

S.No.	Loc.No.	LATITUDE			LONGITUDE		
		Deg	Min	Sec	Deg	Min	Sec
1	KD-001	27	5	35.33	76	59	59.01
2	KD-002	27	5	54.81	76	59	53.55
3	KD-003	27	6	16.73	76	59	54.37
4	KD-004	27	6	27.29	76	59	42.54
5	KD-005	27	6	38.67	76	59	30.83
6	KD-006	27	6	49.79	76	59	18.65
7	KD-007	27	7	1.66	76	59	4.34
8	KD-012	27	7	26.02	76	59	48.01
9	KD-013	27	7	14.01	76	59	59.09
10	KD-014	27	7	1.80	77	0	9.91
11	KD-024	27	7	9.41	77	2	4.53
12	KD-027	27	7	36.24	77	1	28.82
13	KD-028	27	7	41.47	77	1	13.04
14	KD-029	27	7	51.48	77	0	54.85
15	KD-030	27	7	54.46	77	0	33.26
16	KD-035	27	8	40.86	77	0	46.29
17	KD-036	27	8	34.11	77	1	3.82
18	KD-037	27	8	27.49	77	1	23.93
19	KD-038	27	8	17.51	77	1	39.76
20	KD-039	27	8	10.31	77	1	56.49
21	KD-040	27	7	59.80	77	2	4.87
22	KD-042	27	7	44.73	77	2	35.57
23	KD-054	27	8	22.40	77	2	59.28
24	KD-055	27	8	30.69	77	2	49.88
25	KD-056	27	8	38.19	77	2	38.83
26	KD-057	27	8	45.10	77	2	26.50
27	KD-058	27	8	52.83	77	2	6.33
28	KD-059	27	9	2.43	77	1	51.73
29	KD-060	27	9	10.98	77	1	31.25

S.No.	Loc.No.	LATITUDE			LONGITUDE		
		Deg	Min	Sec	Deg	Min	Sec
30	KD-061	27	9	16.93	77	1	17.37
31	KD-067	27	9	21.38	77	2	54.07
32	KD-068	27	9	14.59	77	3	9.35
33	KD-076	27	8	23.44	77	4	55.47
34	KD-077	27	8	39.29	77	4	47.23
35	KD-078	27	8	48.26	77	4	31.92
36	KD-079	27	9	2.84	77	4	29.76

2.4 Technical Project Description

The project activity is a renewable source of electricity generation and supplies the electricity to the NEWNE grid. The total installed capacity of the project activity is 75.6 MW equipped with 36 WTGs with rated capacity of 2100 kW each (model S95). The technical details (Design data) with respect of the Suzlon machines provided in the PDD were confirmed with the technical specifications/TS/ and the purchase order/PO/. In confirming the details, the parameters with respect of the rotor diameter, rotor speed, nominal power, hub height were given special emphasis. Technical brochures from Suzlon sighted also confirm the parameters with respect of the rotor diameter, rotor speed, hub height for the type of machine, cut in and cut out wind speed.

Suzlon Energy Limited (Suzlon Energy) is the equipment supplier and Suzlon Infrastructure Services Limited (Suzlon Infrastructure) is the operations and maintenance contractor for the Project/O&M/ The project activity uses wind energy in producing electricity and no other input is being used, therefore, it will not produce any GHG emission during its lifetime. The electricity generation from wind is a clean technology as there are no GHG emissions associated with it. Technology is indigenous, available within the country, and environmentally safe and sound.

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

Table 2-4: Technical data of the project activity

Parameter	Unit	Value
OPERATING DATA		
Rated power	kW	2100
Cut-in wind speed	m/s	3.5
Rated wind speed	m/s	11
Cut-off wind speed	m/s	25
Wind class		IEC IIA
ROTOR DATA		
Diameter	metre	95
Swept area	metre^2	7085
GENERATOR		

Parameter	Unit	Value
Type		Asynchronous 3 phase induction generator with slip rings operated with rotor circuit inverter system.
Frequency		50 Hz
TOWER		
Type		Tubular steel tower
Tower Height	m	90

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	2012-02-02
Submission of PDD for global stakeholder commenting process	2012-04-20 to 2012-05-19
On-site visit date	2012-05-14 to 2012-05-15
Draft reporting finalised	2012-05-31
Final reporting finalised	2012-12-24
Technical review on final reporting finalised	2012-12-24

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, consisting of one team leader and 2 additional team member, as well as the Technical Review personnel were appointed.

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 [3]	Technical competence [4]	Host country Competence	On-site visit
☒ Mr. ☐ Ms.	Prasad Jakkaraju	TUV India Pvt Ltd.	TL/TE [A]	LA	☒	1.2	☒	☒
☒ Mr. ☐ Ms	Jimmy Sah	TUV India Pvt Ltd.	TM/TE [A]	LA	☒	1.2	☒	☐
☒ Mr. ☐ Ms.	Sandip Saha	TUV India Pvt Ltd.	TM/TE [A]	A	☒	1.2	☒	☒
☐ Mr. ☒ Ms.	Richa Thakur	TUV India Pvt Ltd.	OT [B]	T	☐	-	☒	☐
☒ Mr. ☐ Ms.	Hemang Shah	TUV India Pvt Ltd.	OR [B]	LA	☒	1.2	☒	-
☒ Mr. ☐ Ms.	Samir Beqqal	TN Cert	TR [B]	LA	☒	-	☐	-
☒ Mr. ☐ Ms.	Rainer Winter	TN Cert	TR/FA [B]	SA	☒	1.2	☐	-

[1] TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

[2] GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

[3] GHG auditor status (at least Assessor)

[4] As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, …)

[5] In case of verification projects

[A] Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

[B] No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical Experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

In order to qualify further personnel the project team was accompanied by observers and/or trainees as indicated in the table above. They are usually not considered as team members.

Statements of competence 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***
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.	*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.*	*Gives reference to the information source on which the assessment is based on*	*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.*	*In case a corrective action or a clarification the final assessment at the final validation stage is given.*

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 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 Site Visit and Follow-up Interviews

The validation team has carried out a site visit 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 /IM01/ Project consultant-/IM02/	- Chronological description of the project activity with documents of key steps of the implementation. - Current status of plant design

Interviewed Persons / Entities	Interview topics
Stakeholders Described in section 7.4	- 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. - Financial aspects - Crediting period - Project activity starting date - CER allocation / ownership - Baseline study assumptions - Additionality - Sustainable development issues - Monitoring - Analysis of local stakeholder consultation - Roles & responsibilities of the project participants w.r.t. project management, monitoring and reporting - National Legislation - Editorial issues of the PDD

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	3	1	0
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	15	09	0
Duration of the Project / Crediting Period (C)	01	0	0
Environmental impacts (D)	0	0	0
Stakeholder Comments (E)	0	0	0
SUM	**19**	**10**	**0**

[1)] The letters in brackets refer to the validation protocol

Table 4-2: PDD versions used for assessments

Version Nr.	Assessment Round
PDD v. 1 (Published) dated 05/04/2012	Findings raised
PDD v. 2	DOE Assessment #1
PDD v. 3 dated 2012/09/25	DOE Assessment #2
PDD v. 4 (Final) dated 2012/12/24	DOE Assessment #3

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	A1		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Host country approval is a prerequisite for registration of the project activity. PP is requested to demonstrate the relevant section of the PDD as per the requirement from UNFCCC.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The PP has applied for the HCA and it is awaited.		
DOE Assessment #1 *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.*	HCA is pending.		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The project has obtained HCA DNA of India vide the Letter of Approval (HCA) no. 4/13/2012-CCC dated 2012-11-07. The same is submitted to the DOE.		
DOE Assessment #2 *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.*	HCA has been received by the project participant from MoEF (host Country DNA) on 07/11/2012 with reference no. 4/13/2012-CCC. Further, project title, project participant name has been cross checked and found the same is consistent. Furthermore, the written approval i.e. HCA confirmed the following: • The project has provided written approvals of all parties involved • confirms that the corresponding party is a Party to the Kyoto Protocol • confirms that the participation is voluntary from the host country confirm that the project contributes to the sustainable development in the country • HCA refers precise project title in the PDD submitted for registration • Refers the project participants listed in the PDD approved		

General	A1
	by DNA • Refer that no other project participants approved but not listed in the PDD • DNA confirmed that the project assists it in achieving sustainable development. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	A2		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During document verification, validation team observed that M/s Bindu Vayu Urja Private Limited is the project proponent of this project. Further, board resolution letter mentioned that directors of Caparo Energy (India) Limited took the decision for this project. PP is requested to clarify the relationship between both the organizations.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The board resolution dated 22 July 2011, was taken by Caparo Energy (India) Limited. Subsequently Caparo Energy (India) Limited had a name change. The new name of the company is Mytrah Energy (India) Limited. M/s Bindu Vayu Urja Private Limited (BVUPL) is a special purpose vehicle, launched by ME(I)L. The name change certificate of Caparo Energy (India) Limited to Mytrah Energy (India) Limited is attached as Annexure 1 to the DVR Response. The Business transfer Agreement between ME(I)L and BVUPL is attached as Annexure 2 of the DVR Response.		
DOE Assessment #1 *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.*	Justification is accepted, further the board resolution and the business transfer letter has been checked to confirm the same. CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	A3		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During document review, validation team observed that section A.4.3 of the PDD is not filled as per the CDM-PDD filling guideline version 7. Further, technical specification of the WTG mentioned in the PDD is generic in nature. Correction is sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the cor-*	The section A.4.3 of the PDD has been made in line with the CDM-PDD filling guidelines. The same can be observed in the version 02 of the PDD. The technical specifications of the WTG have been		

Finding:	A3
rective action taken in details.	elaborated in the version 02 of the PDD.
DOE Assessment #1 *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.*	Revised PDD has been checked and found correct. The technical specifications as mentioned in the PDD have been cross-checked with the technical specifications as provided by the supplier i.e. Suzlon. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	A4		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During document review, validation team observed that coordinates of the project activity mentioned in the PDD is not indicates the actual project. Correction is sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The co ordinates of the WTG have been corrected in the version 02 of the PDD.		
DOE Assessment #1 *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.*	Revised co-ordinates have been checked with the web based tool and found correct. CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B1		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Additionality of the project activity has been demonstrated according to the latest version of "Tool for the demonstration and assessment of additionality". Further, outcome of each of the steps are not mentioned in the PDD. Corrections are sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The outcome for each step has been mentioned in the version 02 of the PDD.		
DOE Assessment #1 *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.*	Revised PDD has been checked and found that outcome of the steps has been incorporated in the revised PDD ver 2. CAR is closed.		

Finding:	B1
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B2		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	It may be clarified how the CDM revenues were considered essential to overcome the investment barrier, in particular that the benchmark represents a rate below which the investment could not be made.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The PP has assessed the financial viability of the project based on the quotations received from the technology supplier and concluded that the project is not financially viable. Subsequently PP has considered CER revenue in assessing the feasibility as the project is a wind energy based power generation which does not emit any GHG and witnessed that CER revenue would improve the financial status of the project. Also it is evident that the revenue from sale of CER would improve the Equity IRR (financial indicator) and bridge the gap between the benchmark and the equity IRR and therefore PP has decided to proceed with the investment in the project considering CDM revenues at the time of decision making. As per the Guidance 34 of Annex 21 EB 65, *"If the CDM project activity has a less favorable indicator (e.g. lower IRR) than the benchmark, then the CDM project activity cannot be considered as financially attractive."* Therefore, with regard to the current project activity the equity IRR is lesser than the benchmark and therefore not financially attractive. The guidance does not require demonstrating the impact of CDM revenue on the financial indicator (i.e. equity IRR).		
DOE Assessment #1 *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.*	The review of the financials of the projects establishes that the equity IRR for the project improves after consideration of CDM. Thus CERs revenues improve the viability of the project. CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B3		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unam-*	The calculation of equity IRR is not in line with the appendix under		

Finding:	B3
biguous style; address the context (e.g. section)	EB 62 annex 5. Justification is sought in this regard.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The investment decision for the project is taken by the equity investor and therefore the decision to invest in the project is based on the return derived by the equity investor based on an equity based return i.e. Equity IRR. Project IRR does not take in to account effect of different financing structures on any project. Investment decisions are as much dependent on financing structures as they are on other project parameters and have significant impact on investment viability. Therefore it would not be appropriate to ignore the financing structure as it forms an important parameter to any investment decision. Considering above, post tax equity IRR is considered to be the most appropriate financial indicator for investment analysis.
DOE Assessment #1 *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.*	The explanation is least convincing and incorrect. Please clarify whether the guidelines for completing the PDD and Additionality Tool require the demonstration of additionality of the project or the additionality of the project to PP. Further the formula applied for equity benchmark calculation is not in line with para 7 of appendix under Annex 5 of EB 62. CAR is open
Corrective Action #2	Based on Annex 5 EB 62, the debt equity ratio has been revised to 66.09:33.91 taking in to consideration the actual loan sanction letter (Ref: IREDA letter). Further the benchmark calculation has been revised to confirm to EB 62 annex 5.
DOE Assessment #2	The project applies the actual values from the Loan Document which was available to the PP during the decision making, thus the debt equity ratio is acceptable. Further the project applies equity IRR and the benchmark selected is as per EB 62 annex 5 appendix (default values for equity returns and forecasted inflation) has been considered. The PDD is revised accordingly. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B4		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PDD does not explain the conformity of technical life of the project to Annex 15, EB 50. Correction is sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The technical life time of the project is 20 years. A technical specification document from Suzlon Energy Limited (manufacturer in this case) has been provided as a supporting document. The same has been mentioned in the version 02 of the PDD.		

Finding:	B4
DOE Assessment #1 *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.*	Documentary evidence in conformity with Annex 15, EB 50 for the technical life of the project has been submitted. CAR is closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B5		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Salvage value has been reckoned as cash inflow in the first and last years of operation, resulting in double counting. Moreover, reckoning salvage value in the first year is incorrect. Correction is sought in this context.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The IRR sheet has been revised. The salvage value has been accounted only in the last year as per the revised IRR sheet.		
DOE Assessment #1 *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.*	Worksheet has been corrected and salvage value has been reckoned in the terminal year. CAR is closed		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B6		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Considering the fact that the COD of the project is June 2012, provision of full year book depreciation in the first year is not in conformity with accepted accounting principle When the COD of the project is stated to be June 2012, the provision of IT depreciation is not in conformity with IT Act. Corrections are sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	IT depreciation on plant and machinery has been revised in line with the COD of the project.		
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and*	The COD of the project has been revised to 01/04/2012. As per Offer letter the COD is 31/03/2012. Since this impacts additionality, PP may clarify the basis for the COD with credible documentary evidence. CAR is open		

Finding:	B6
DOE assessments (#2, #3, etc.) shall be added.	
Corrective Action #2	The COD of the project has been corrected to 31/03/2012
DOE Assessment #2	The commissioning date of the project activity was erroneously mentioned as June 2012 and is now corrected to 31/03/2012/OL/ therefore as per the accounting principal the depreciation of the last day of the year 2011-12 (fiscal year) has also been considered for the calculation of the IRR. Thus the CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B7		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Additional depreciation has not been reckoned in financial indicator calculation. Please clarify whether the project is entitled to additional depreciation or not. Clarification is sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Since the project proponent has considered Generation Based Incentive, it is not eligible for Additional depreciation.		
DOE Assessment #1 *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.*	Please furnish the relevant section of IT Act or any regulation which prohibits claiming additional depreciation if the GBI is availed. CL is open.		
Corrective Action #2	As per "Operational Guidelines for Implementation of Generation Based Incentives for Grid Connected Wind Power Projects" by Indian Renewable Energy Development Agency Ltd. (IREDA), Companies shall be allowed to avail either AD or GBI but not both The reference to the document is provided below: http://www.inwea.org/others/OPERATIONAL_GUIDELINES.pdf		
DOE Assessment #2	The "Operational Guidelines for Implementation of Generation Based Incentives for Grid Connected Wind Power Projects" has been checked and found the correct. Thus the additional depreciation need not to be reckoned in financial indicator calculation as the GBI has been considered. Moreover 15% depreciation has been included which is as per as per Income tax Act and is available to the PP thus has been reckoned in the tax calculations. Hence the CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B8		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The source and the name of the publication from which the inflation has been sourced (to convert the real rate of return to nominal rate) have not been given. Moreover, the inflation rate does not seem to be correct. Correction is sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The inflation considered in order to convert real rate of return to nominal rate has been sourced from the following source: Mean WPI Inflation forecast for 10 years by Reserve Bank of India. The web link to the same has been provided in the benchmark calculation sheet.		
DOE Assessment #1 *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.*	The inflation rate used does not conform to paragraph 7 of Appendix to Annex 5, EB 62. CAR is open		
Corrective Action #2	The inflation rate has been considered from "Results of 15th Round (Q4:2010-11) of Survey of Professional Forecasters on Macroeconomic Indicators" by Reserve Bank of India, which is the central bank of India. This document was dated 25 May 2011and was available during project conceptualization. This is in conformance to paragraph 7 of Appendix to Annex 5, EB 62		
DOE Assessment #2	As per paragraph 7 of Appendix to Annex 5 EB 62, the inflation rate shall be obtained from the inflation forecast of the central bank of the host country for the duration of the crediting period; the same has been taken for the inflation rate and the link is also provided in the revised PDD and found correct. Thus the CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B9		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The Assumptions sheet does not provide the source /basis for each input parameter. The Assumptions worksheet mixes the unit and source of input parameter, which is incorrect. Corrections are sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The assumption sheet has been updated. The units for each and every parameter have been mentioned separately in a column. The changes can be observed in the version 02 of the PDD.		
DOE Assessment #1 *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.*	The revised assumption sheet provides the source; it also separates the units from source. CAR is closed		

Finding:	B9
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B10		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Weekly Statistical Supplement dated 28/05/2010 has been cited as the basis for interest rate. This does not conform to either guidance 6 or 11 of Annex 5, EB 62. Moreover, other terms of loan, viz., initial grace period, repayment period, number of instalments, instalment amount etc. are not given in the Assumption sheet or in the PDD. Corrections are sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The PP has assumed an interest rate of 10.25% which was the RBI base rate available at the time of decision making. The other terms of loan has been updated in the version 02 of the IRR calculation sheet		
DOE Assessment #1 *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.*	Please clarify whether this project is eligible to borrow at the base rate. The actual loan sanction terms does not support this contention. Moreover, the terms of loan is reported to have been sourced from RERC tariff order of July 2009. PP may furnish the relevant page number of the order which prescribes the terms of loan assumed in the calculation for quick reference. Since this impacts additionality, the response is not acceptable. CAR is open		
Corrective Action #2	Prior to the decision making of this project activity, PP has experience in investing in wind power project in the state of Rajasthan. PP had availed a loan from IDFC at an interest rate of 13% (IDFC's Benchmark rate of 9.75% plus 3.25% spread). Therefore, the same was available as reference to the PP. Further However, this project activity has received loan at an interest rate of 12.65%. Therefore, on a conservative approach, the IRR worksheet has been revised using the actual interest rate of 12.65%.		
DOE Assessment #2	The interest rate is based on the agreement between PP and the banks which has been verified by the validation team. The loan agreement with IREDA mentions the interest rate of 12.65%. Hence, the interest rates assumed are correct and appropriate. This is in conformity with guidance 11 of Annex 05, EB 62. CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B11		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding	Tariff has been sourced from RERC order dated 14/12/2011, which		

Finding:	B11
Describe the finding in unambiguous style; address the context (e.g. section)	does not conform to Guidance 6 of Annex 5, EB 62. Moreover, when RERC has issued an order on 3/06/2011, the reason for choosing 14/12/2011 order is not clear. Appropriate correction is sought.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The tariff has been revised in the IRR sheet and the PDD. Tariff has been sourced from RERC Tariff order dated 31 March 2010 as this was the only Tariff Order available during the project conceptualization. The revised tariff is INR 3.83/ KWh.
DOE Assessment #1 *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.*	The corrected tariff is not appropriate for the project activity as various tariffs have been described however the conformity to the project activity has not been detailed. . CAR is open.
Corrective Action #2	The Tariff has been revised to INR 4.22/KWh. This has been sourced from RERC Order dated 03 June 2011 which was available during project conceptualization.
DOE Assessment #2	The tariff considered for the project activity is based on Rajasthan Electricity Regulatory Commission dated 03/06/2011 (http://www.rerc.rajasthan.gov.in/Orders.aspx) which were available at the time of decision making. It is confirmed by the assessment team that the tariff assumed at the time of decision making (INR 4.22/kWh based on RERC) and the tariff as per the actual PPA signed is INR 4.46/kWh. The tariff in the actual PPA has varied as a new wind tariff order was in place on 14th December 2011 (http://www.rerc.rajasthan.gov.in/TariffOrders/Order120.pdf). As per the new tariff order the tariff for the projects are INR 4.46/kWh. Since guidelines 6 of Annex 05, EB 62 requires the PP to consider only those input parameters that were available at the time of decision making, considering tariff (INR 4.22/kWh) from RERC tariff order is in conformity with guidance 6 of Annex 05, EB 62 and thus acceptable by the assessment team and is in compliance to Para 113 (C), VVM ver1.2.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B12		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Please clarify the reason for using March 2012 exchange rate (for CER conversion) when the investment decision was taken in July 2011. Clarification is sought in this regard.		
Corrective Action #1	The exchange rate has been revised to June 2011.The exchange		

Finding:	B12
This section shall be filled by the PP. It shall address the corrective action taken in details.	rate is 1 Euro = INR 64.52. The IRR sheet has been revised to this effect. The web link to the same has been provided.
DOE Assessment #1 *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.*	Exchange rate has been revised, but it has been entered in incorrect cells. This may be corrected in the worksheet. CL is open In this context it is observed that the IREDA had sanctioned the loan on 15/02/2011 and IDFC on 29/11/2011. IREDA sanction letter however refers to IDFC sanction letter and its terms, which implies that a sanction letter was issued by IDFC earlier to 15/02/2011. But it is claimed that the decision making date is 22/07/2011. This means that the loan application was submitted and loan was sanctioned even before the PP took investment decision, which is not possible given the lenders are Govt. financial institutions and one of the documents that need to be submitted is a Board resolution to undertake the project. The decision making date given therefore does not seem to be correct. CL is open.
Corrective Action #2	The exchange rate has been entered in correct cells. The change can be observed in the revised IRR sheet. IREDA loan was sanctioned in February 2012. However, the loan sanction letter has the date erroneously entered as February 2011. PP has informed IREDA on the same and requested for a correction. The decision making date is 22/07/2011 itself. IREDA loan was sanctioned in February 2012. However, the loan sanction letter has the date erroneously entered as February 2011. PP has informed IREDA on the same and requested for a correction. The copy of the letter sent to IREDA is shared with the DOE for reference. The decision making date is 22/07/2011 itself.
DOE Assessment #2	The IRR sheet has been checked by the validation team and found correct with respect to the exchange rate. Further the communication from IREDA for revision in terms provides the reference of the Sanction letter in February 2012, thus establishing that the sanction letter had typographical error. The loan sanction letter is checked and is acceptable. CL is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B13		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During assessment following issues are identified: 1. Though the COD of the project is not given either in the PDD or in the Assumption sheet, from the Term Loan sheet it emerges that the COD is June 2012. In the above background, reckoning generation from 01/04/2012 is contradictory 2. Since the COD of the project is June 2012, the interest		

Finding:	B13
	calculation given in the Term Loan sheet for the period August 2011 to May 2012 is redundant 3. Number of days in a year has been given uniformly at 365 (including leap year), in the Operations worksheet, which is not correct. 4. Since the COD of the project is June 2012, reckoning the entire investment in 2011-12 is not appropriate Corrections are sought in this regard.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	1. The COD is 01 April 2012. The Term Loan sheet has been revised to 01 April 2012 as well. 2. The COD of the project is April 2012 and the interest calculation has been revised in line with COD of the project. 3. The leap years have been updated in the Operations worksheet of the version 02 of the IRR sheet. 4. The COD of the project as per the term loan sheet is April 2012 and hence the investment considered is in line with COD.
DOE Assessment #1 *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.*	As per the offer letter the COD of the project is 31/03/2012, while the COD is considered as 01/04/2012 in the calculation. This impacts additionality. Therefore, the PP has to furnish the basis for the COD assumed with credible documentary evidence. CAR is open
Corrective Action #2	The COD of the project has been revised to 31/03/2012
DOE Assessment #2	The commissioning date of the project activity is 31/03/2012/OL/ therefore as per the accounting principal, the depreciation of the last day of the year 2011-12 (fiscal year) has also been considered for the calculation of the IRR. Moreover, all the corrections have been done in the revised spreadsheet; the revised IRR/XLS/ sheet has been checked and found correct. Thus the CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B14		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During assessment following issues are identified: 1. O&M cost has been reckoned at Rs.22.30 lakhs/WTG which includes basic cost and ST. The split up may be furnished. 2. Considering the fact that the COD of the project is June 2012 and free O&M period of 3 years, reckoning O&M cost for full		

Finding:	B14
	year in 2015-16 is incorrect. Corrections are sought in this regard.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	1. The O&M cost assumed is from quotations from SEL which is excluding Service Tax. Thus Service Tax has not been accounted for in the O&M. 2. The COD of the project is April 2012. Thus O&M cost for full year in 2015-16 is appropriate.
DOE Assessment #1 *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.*	1. Explanation is accepted as the amount considered is conservative. CAR is closed 2. Since the COD has been reckoned as 01/04/2012, O&M calculation is correct. However, this is subject to satisfactory resolution of CAR B14 above CAR is open
Corrective Action #2	The COD of the project has been revised to 31/03/2012. As per the quotations received from the technology supplier, the cost of O&M is INR.22,30,000 from third year of operation and the same has been used in the financial calculations.
DOE Assessment #2	The COD is revised to 31/03/2012 further the O&M cost is based on offer letter supplied and is available at the decision making period thus is acceptable. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B15		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Land cost has been considered at 1.5% of total cost. Clarify the basis for the same Unnecessary rows (like Administrative expenses, insurance etc.) lead to confusion and do not serve any purpose. Clarifications are sought in this regard.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The Land cost has been removed from the IRR sheet. Rows for administrative expense and insurance have been removed in the revised sheet as it was not accounted.		
DOE Assessment #1 *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.*	Land cost has been removed. Though administrative expenses row has been removed, insurance row still exists. CAR is open		
Corrective Action #2	Insurance row has been deleted in the revised IRR sheet. The quotation received from the technology supplier does not provide the land cost. However, as per SERC regulation, depreciation up to 90% of capital cost can be accepted. Therefore in the revised		

Finding:	B15
	worksheet, 90% of the project cost has been depreciated and 10% of the project cost has been considered as land cost which is non-depreciable. Further, salvage value considers two components i.e. the land cost (10% of project cost) and 10% of Depreciable project cost.
DOE Assessment #2	The Depreciation is applied on total project cost is for 90% while 10% is considered as the land cost which remains non depreciable as Land cost cannot be depreciated. Thus CL is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B16		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Tax calculations do not reckon MAT set off. Clarify whether the project is entitled to MAT set off or not and if not the reasons therefor		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	MAT set off against the MAT credit available for the project has been included in the TAX calculations.		
DOE Assessment #1 *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.*	MAT set off has been accounted. Thus CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B17		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Please clarify whether CER income is not subject to taxation.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	During the project conceptualization, there was no guideline available in the public domain regarding whether CER revenue is taxable or not. However during the financial analysis the CER revenues have been subject to tax.		
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-*	The response and worksheet are at variance. CL is open		

Finding:	B17
1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	
Corrective Action #2	The CER revenue has been subjected to tax. The same can be observed in the revised IRR sheet.
DOE Assessment #2	The CER revenue has been subjected to tax in the revised IRR sheet. The revised IRR sheet/XLS/ has been checked and found correct. The CL is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B18		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The conformity of PLF to Annex 11, EB 48 has not been explained anywhere in the PDD. It is observed that while in sec. B.6.3., the PLF is considered at 23.50%, in the worksheet, it is reckoned at 20.10%, which is neither appropriate nor acceptable. PP is advised to furnish the PLF submitted to Bank		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The PLF value has been taken from a third party report by AWS True power dated 14 January 2011. The value chosen is 20.1 %, which is the 20 year P90 production. This is in conformance with Annex 11, EB 48. The same has been mentioned in version 02 of the PDD.		
DOE Assessment #1 *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.*	PLF has been sourced from third party engineering consultant appointed by the project, which conforms to Annex 11, EB 48 and guidance 6 of Annex 5, EB 62. CAR is closed		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B19		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During the assessment of the PLF certificate, validation team observed that, Suzlon has conducted the PLF assessment for Kaladonger site for the capacity of 178.5 9 MW on 14/01/2011. The summary of this report mentioned that expected generation from the wind firm would be 374.7 GWh (p 11, para 8) and expected PLF of the site is 23.9. Moreover, in the financial estimation and ER		

Finding:	B19
	calculation 20.10 % PLF has been considered. Hence, clarification is required to demonstrate the appropriateness of the considered PLF for this project.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The PLF value has been taken from a third party report by AWS True power dated 14 January 2011. The value chosen is 20.1 %, which is the 20 year P90 production. This is in conformance with Annex 11, EB 48. The same has been mentioned in version 02 of the PDD.
DOE Assessment #1 *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.*	PLF has been sourced from third party engineering consultant appointed by the project, which conforms to Annex 11, EB 48 and guidance 6 of Annex 5, EB 62. CL is closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B20		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Though the worksheet contains sensitivity analysis sheet, it does not contain the results of sensitivity analysis		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The results of sensitivity analysis have been updated in version 02 of the IRR sheet.		
DOE Assessment #1 *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.*	Results of sensitivity analysis forms part of revised worksheet. CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B21		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	During assessment, validation team identified that sensitivity analysis has been conducted by subjecting all the parameters to ±10% variation. PDD does not explain how the chosen variation is considered reasonable in the project context. Sensitivity analysis section does not explain at what percent variation the financial indicator will equal the benchmark and the		

Finding:	B21
	probability of its occurrence with documentary evidence. Corrections are sought in this regard.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The sensitivity analysis has been done as per the Paragraph 21 of version 05 of Guidelines on Investment Analysis. A breakeven analysis has been provided in the version 02 of the PDD.
DOE Assessment #1 *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.*	Revised PDD contains break-even analysis. However, the revised PDD does not explain the conformity of variations to which the chosen parameters have been subjected to guidance 21 of Annex 5, EB 62 has not been explained. CAR is open
Corrective Action #2	The PP had carried out sensitivity analysis at ±10% which as per Paragraph 21 of version 05 of Guidelines on Investment Analysis. However since the actual orders have already been placed, sensitivity analysis has been also done with the actual values and there is no impact on additionality.
DOE Assessment #2	The revised PDD includes the break-even analysis; moreover the sensitivity analysis has been also done with the actual values. The same/PDD/ has been checked by the validation team and found that the project remain additional even after sensitivity analysis. Hence the CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding:	B22		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Common practice analysis does not conform to step 4 of Additionality Tool. Presentation of select projects and concluding that there are no similar activities is not acceptable. The validation will require the entire population. Appropriate correction is required.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The list of wind power projects has been revised in the version 02 of the PDD. The exhaustive list of wind power project with capacity over 15 MW has been taken from India Windpower Directory 2011 volume 1. Photocopies of all these projects have been shared with the DOE for verification. The list of projects under CDM has been taken from the UNFCCC website. The web links to all these projects have also been updated in the version 02 of the PDD. Hence, with the larger populations as well it is concluded that it is not a common practice to have projects of this size without a CDM benefit.		
DOE Assessment #1 *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.)*	Even the revised PDD does not conform to step 4 of Additionality Tool. CAR is open		

Finding:	B22
shall be added.	
Corrective Action #2	The photocopies of the relevant pages from India Windpower Directory have been submitted to DOE for verification. Further The Common practice analysis has been revised in the PDD based on the Additionality Tool and guidelines to demonstrate common practice analysis version 2.0.
DOE Assessment #2	The revised PDD demonstrates the common practice analysis based on the guidelines to demonstrate common practice analysis version 2.0. The same has been checked and the calculations are confirmed and are acceptable. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Additional action should be taken (finding remains open) ☐ The finding is closed

Finding:	B23		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	In the emission factor estimation, only electricity generation has been considered to estimate the weighted average of operating margin emission factor. This procedure is not in line with the footnote no 5 of "Tool to calculate the emission factor for an electricity system" version 2.2. Appropriate corrections are sought.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The electricity import value has been incorporated in calculating the emission factor. The same can be observed in version 02 of the emission reduction sheet. The procedure is now in line with footnote no 5 of "Tool to calculate the emission factor for an electricity system" version 2.2.		
DOE Assessment #1 *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.*	Validation team assessed the revised ER sheet and revised PDD and found that electricity import has been incorporated in the weighted average of operating margin estimation which is in line with the footnote no 5 of "Tool to calculate the emission factor for an electricity system" version 2.2.1 Further, Net generations of NEWNE grid for 2008-09, 2009-10 and 2010-11 are not appropriately considered. CAR is open.		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Net generations of NEWNE grid for 2008-09, 2009-10 and 2010-11 have been correctly considered in the updated emission reduction sheet. The change can also be observed in the version 03 of the PDD.		
DOE Assessment #2 *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.*	The revised ER sheet as well PDD have been checked by the validation team and found that the calculated weighted average operating margin as per the CEA database version 7 is appropriate. Hence the CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	B24		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Net electricity measurement methods and procedures mentioned in the webhosted PDD is not in line with project scenario. During site visit, validation team observed that WTG under this project activity is connected to common feeder where other WTG (not under this project activity) are also connected. Appropriate corrective actions are required.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The monitoring plan for net electricity generated has been updated in the version 02 of the PDD.		
DOE Assessment #1 *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.*	Apportioning procedure of the electricity has been mentioned in the revised PDD. Further, PDD is silent about the monitoring of the transmission loss and calibration of the cluster meters. Clarification on the same is required. CAR is open		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Transmission loss is a fixed percentage provided in Annex B of the PPA and is used directly. There is no further calculation for the same. The calibration details of cluster meters are updated in the PDD.		
DOE Assessment #2 *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.*	The PPA comprising the transmission loss has been checked by the validation team and found acceptable. Further the calibration details of the cluster meters are provided to be at an annual frequency.CAR is closed..		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding:	C1		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The start date of crediting period is not realistic based on the validation progress of the project. Appropriate corrections are requested.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The start date of crediting period is revised to 2012/11/01.		
DOE Assessment #1 *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.*	The revised PDD mentions the start date of crediting period as 2012/11/01; however the same is not realistic. Hence the CAR is open		
Corrective Action #2	The start date of crediting period is revised to 2012/12/01.		

DOE Assessment #2	The revised PDD mentions the start date of crediting period as 2012/12/01; however the same is not realistic. Hence the CAR is open
Corrective Action #3	The start date of crediting period is revised to 2012/12/31.
DOE Assessment #3	The revised PDD version 4 mentions the start date of crediting period as 2012/12/31 and is realistic based on the validation progress. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Participation

LOA

The host country approval/HCA/ letter no. 4/13/2012 dated 07/11/2012 has been obtained from Ministry of environment and forest, Govt of India which is the authorized DNA for CDM projects. Ministry of Environment and Forest, Govt. of India has stipulated the social well being, economic well being, technical well being and environmental well being as the four indicators for sustainable development in the interim approval guidelines for HCA eligibility criteria for clean development mechanism projects. PP described all the sustainable development indicators correctly and appropriately which is sufficient enough to prove that project will lead to sustainable development. Same is also mentioned in the Host Country Approval/HCA/. The project title as mentioned in the HCA is identical to the title mentioned in the final PDD.

Furthermore, the written approval, i.e. Host Country Approval, confirmed the following criteria:

- The corresponding party is a Party to the Kyoto Protocol
- The participation of the PP in this project is voluntary
- The project contributes to the sustainable development in the country
- Precise project title in the PDD submitted for registration
- The project participants listed in the PDD approved by DNA
- No other project participants approved but not listed in the PDD

Further, CAR A1 was raised during the validation process and closed successfully.

Project Participants

M/s Bindu Vayu Urja Private Limited (BVUPL) is the project participant for this project activity. PP has obtained the HCA from MoEF (Govt of India) for this proposed activity. The name of the project participant is consistent with the PDD and HCA. Further, no Annex I Country is envisaged at this stage of the validation. Further during the review of project documents it was observed that the project decisions were taken by Caparo Energy (India) Limited thus CAR A2 has been raised to clarify the name of the project participant, in reply it was clarified that decision to implement was taken by Caparo Energy (India) Limited, however subsequent to the decision the name of the company was changed to Mytrah Energy (India) Limited which formed a special purpose vehicle named M/s Bindu Vayu Urja Private Limited (BVUPL) to

execute the project. The letter for name change has been checked and is found acceptable. Further M/s Bindu Vayu Urja Private Limited (BVUPL) is assessed to be the project proponent. Thus CAR A2 was closed.

5.1.2 Contribution to Sustainable Development

The project activity is in line with sustainable development policies of the country /HCA/ and national regulation / policy on Environmental Protection/MoEF/, Electricity and Non Conventional Energy. Nevertheless in the Host Country Approval it is stated that the project participant (PP) has to comply with the following conditions:

- PP shall not sell the CERs to any agency /company/ organization which purchases the CERs using ODA Funds
- PP 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
- PP shall furnish expeditiously any information, during the lifetime of the project as requested by the National CDM Authority.
- PP 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

5.1.3 PDD editorial Aspects

The project used the latest template for completing CDM PDD Form version 03 (http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html) which is the latest version available at the time of global stakeholder's consultation process. The project also used CDM-PDD filling guideline version 07, (http://cdm.unfccc.int/Reference/Guidclarif/pdd/index.html) for completing all the section of the PDD which is the latest at the time of global stakeholder's consultation process. Further, during assessment, validation team found that the PDD is not filled as per the CDM PDD filling guideline version 07, thus CAR A3 was raised during the validation process as section A.4.3 of the PDD was not filled as per the CDM-PDD filling guideline version 7. Further, technical specification of the WTG mentioned in the PDD is generic in nature. The same has been revised in the PDD version 2 which has been checked by the DOE and found correct. Thus the CAR is closed.

Further, during the review of the project document it was observed that the project co-ordinates are not mentioned correctly thus CAR A4 was raised. In reply the PP corrected the co-ordinates and submitted the revised PDD. The coordinates have

been confirmed with web tool and found acceptable. CAR A4 was closed subsequently.

5.1.4 Technology to be employed

The proposed Greenfield project activity involves installation of new WTGs to generate electricity from wind energy. The total installed capacity of the project activity is 75.6 MW which is equipped with 36 WTGs (model S95) with rated capacity of 2100 kW each. The project activity is located at Kaladonger village in Rajasthan, India. The electricity generated by the WTGs will be sold to Jaipur Vidyut Vitran Nigam Limited as per PPA/PPA/ and will be supplied to NEWNE grid.

Electricity generated from these WTGs will be supplied to NEWNE grid. Therefore, in the absence of the project activity, the equivalent amount of electricity would have been generated from the connected plants in the NEWNE grid which is predominantly based on fossil fuels. The main emission source in the pre-project scenario is the power plants connected to the NEWNE grid and the main GHG involved in this project activity is CO_{2e}.

The technical details (Design data) with respect of the Suzlon machines (model S95) provided in the PDD were confirmed from the technical specifications/TS/ provided by the supplier Suzlon Energy Limited (SEL). In confirming the details, the parameters with respect of the, Towers, Rotor, Blades, Hub, and Transformer etc were given special emphasis. The lifetime of the WTG is 20 years and has been checked with the technical specifications/TS/.

SEL is the equipment supplier/OFFER//PO/ of this project activity and Suzlon Infrastructure Services Limited (SISL) is involved in the operation and maintenance/O&M/ of this project activity. The project activity uses wind energy in producing electricity and no other input is being used, therefore, it will not produce any GHG emission during its lifetime/IM01/.

The electricity generated from this technology depends on many factors i.e. the speed of wind and availability of grid. The electricity generation from the project activity is estimated at 133113.46 MWh per annum and the project will generate emission reduction equivalent to 126817 tCO_{2e} per annum.

5.1.5 Small Scale Projects

The project activity involves generation of electricity from the renewable wind energy. Since the capacity of the project activity is 75.6 MW which is higher than the maximum qualifying criteria of 15 MW for a small scale CDM project activity under Type I of small scale methodologies; hence the project is large scale project.

5.2 Project Baseline, Additionality and Monitoring Plan

5.2.1 Application of the Methodology

During webhosting, PP used ACM0002 ver. 12.3.0 for project development. However, during the validation process version of the meth is expired which lead to CARB1. The version of the methodology is revised to latest version and thus CAR is closed. The project now applies approved consolidated baseline and monitoring methodology ACM0002 version 12.3.0 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”; (http://cdm.unfccc.int/methodologies/DB/C505BVV9P8VSNNV3LTK1BP3OR24Y5L)
All the applicability criteria for the project activity are defined in section B.2 of the PDD which is assessed to be correct by the assessment team. The project is in line with all the other stipulated requirement of the methodology.

5.2.2 Project Boundary

ACM0002 version 12.3.0 specifies that project boundary encompasses the physical, geographical site of the renewable generation source. During the site visit and subsequent interview with the project participant/IM01/ it was found that the project boundary is composed of the WTGs, the metering equipment, substation and the grid that is used to transmit the generated electricity. The state of Rajasthan is covered under NEWNE grid. As the project activity is supplying the generated electricity to the same NEWNE grid, therefore NEWNE grid has been chosen as electricity distribution system for the project for the baseline calculations which was checked during the site visit and subsequent interview with the PP and found appropriate.

5.2.3 Baseline Identification

As the project is the renewable electricity generation for a grid system, which is fed by both fossil fuel generating power plants (using fossil fuels such as coal, natural gas, diesel, naphtha etc.) and fossil fuel based generating plants (such as hydro, nuclear, biomass and wind). Hence, according to ACM0002 ver. 12.3.0, the applicable baseline is electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system” version 2.2.1. Therefore, applicable baseline for this project activity is the MWh produced by the renewable generating unit multiplied by an emission coefficient (measured in tCO_{2e}/MWh) calculated in a transparent and conservative manner.

Establishing Baseline

The baseline for the project activity is power generated from renewable energy source multiplied by the grid emission factor of NEWNE grid which is 0.9527tCO2/MWh calculated in transparent and conservative manner.

Calculation of grid emission factor:

Option (a) has been considered to calculate the grid emission factor. It has been calculated as per the version 2.2.1 of 'Tool to calculate the emission factor for an electricity system'.

- The calculation of the operating margin emission factor ($EF_{grid,OM}$) is based on simple operating margin procedure and the approach is found as per the applied Tool

- Option 1 as described above is chosen for the project activity. BM is calculated ex-ante based on the most recent information available at the time of submission of PDD and it will be fixed ex ante for the entire crediting period.

- The Combined margin is calculated based on the derived value of build margin and operating margin and the value comes to 0.9527 tCO2/MWh.

Thus the process of establishing baseline is assessed to be correct and in line with applied methodology and applied tool.

However, a CAR B25 has been raised as in the emission factor estimation, only electricity generation has been considered to estimate the weighted average of operating margin emission factor. This procedure is not in line with the "Tool to calculate the emission factor for an electricity system" version 2.2.0. In the revised ER sheet as well PDD it has been corrected. The ER sheet and PDD have been checked by the validation team and found that the calculated weighted average operating margin is as per the CEA database version 7 and is appropriate. Hence the CAR is closed.

5.2.4 Calculation of GHG Emission Reductions

Baseline Emission in the year y (in tCO_2), BE_y, due to displacement of grid electricity are the product of the baseline grid emission factor for the year y, $EF_{grid,CM,y}$ (in tCO_{2e}/MWh) and the net electricity supplied by the project activity to the grid in the year y, $EG_{PJ,y}$ (in MWh/yr) over the crediting period can be calculated as below:

$$BE_y = EG_{PJ,y} * EF_{grid,CM,y}$$

Where:

BE_y = Baseline emissions in year y (tCO_2/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr)

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of the Tool to calculate the emission factor for an electricity system. (tCO_2/MWh).

In this project activity WTG under this project activity is connected to common feeder where other WTG (not under this project activity) are also connected, hence an apportioning procedure for the net electricity supplied to the grid has been applied. The apportioning calculation will be done by the JVVNL and the net electricity supplied is sourced from the JMR sheets which is an authenticate document signed by both the project participant and electricity board and forms the basis of emission reduction calculation for the project activity.

Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors according to the procedure prescribed in the "Tool to calculate the emission factor for an electricity system" version 2.2.1 which is sourced from CEA version 07/CEA/, Govt. of India and forms the part of emission reduction calculation. The baseline emission factor calculation is checked by the validation team and found that the calculation is transparent and conservative.

Project Emissions

As wind technology is a cleaner source and there are no emission of GHG gases in this project activity, thus according to ACM0002 ver. 12.3.0, there are no project emissions associated with it, therefore, $PE_y = 0$.

Leakage Emissions

As per the ACM0002 ver. 12.3.0, no leakage is to be considered.

Therefore, $L_y = 0$

Emission Reductions

The project activity reduces carbon dioxide emissions through displacement of grid electricity generation with predominantly fossil fuel based power plants[1] by renewable electricity. The emission reduction (ER_y) due to project activity during a given year y is estimated as the difference between baseline emissions (BE_y) and project emissions (PE_y) as per the formulae given below:

$ER_y = BE_y - PE_y$

[1] http://www.cea.nic.in/power_sec_reports/general_review/0304/tables.pdf

Where,

BE_y = Baseline emissions in the year y in tCO_{2e}

PE_y = Project emissions in the year y.

Here,

PE_y = 0 for the project activity as per the methodology.

Therefore, $ER_y = BE_y$.

The net electricity measurement methods and procedure mentioned in the initial PDD is not in line with project scenario as during site visit, validation team observed that WTG under this project activity is connected to common feeder where other WTG (not under this project activity) are also connected hence a CAR B26 has been raised. Further, the monitoring of the transmission loss and calibration of the cluster meters has also not been mentioned in the PDD. In the revised PDD version 2 the apportioning procedure has been incorporated. Further the PDD version 3 details out that the transmission loss is a fixed percentage as provided in Annex B of the PPA and calibration of the cluster meters has also been mentioned in the PDD. Thus the CAR is closed.

5.2.5 Additionality Determination

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

The investment committee of Caparo Energy (India) Limited (now Mytrah Energy (India) Limited.) decided about this project on 22/07/2011/MD/ and during conceptualization of the project activity the investment committee considered the CDM revenue to improve the project financials. Investment committee considered the offer letters from WTG suppliers dated 04/07/2011/OL/ before decision making and issued the purchase order/PO/ for supply of 36 Suzlon S95, 2100 kW WTG to Suzlon Energy Limited on 29/07/2011. As it is being a Greenfield project activity/IM01/, it is confirmed that they have not undertaken any construction or real action for the implementation of the project activity prior to these dates. Thus, as per 'Glossary of CDM terms (Version 07)', earliest real action for this project activity was taken on 29/07/2011; hence, this date has been treated as the start date of the project activity. Since the real action of the project activity had begun after 02nd August 2008, the project activity falls under the category of *new project activity* as per paragraph 100 of VVM, ver. 1.2 and Annex 13 EB62.

The project proponent intimated the host country DNA and UNFCCC on prescribed form, F-CDM-Prior Consideration, on 12/09/2011, within six months of project start date, for seeking CDM status of the project activity comprising the WTGs ordered in

the financial year 2011-12. The UNFCCC has webhosted the same prior CDM consideration on its website on 07/11/2011.

These notifications were submitted to the respective governing body (UNFCCC and MoEF) within six month of the start date of project activity as required vide paragraphs 101 of VVM, ver. 1.2 and paragraphs 2,3,4,5 of Annex 13, EB 62. Validation team assessed all the purchase orders issued by Caparo Energy (India) Limited, Investment Committee Resolution/MD/ and intimation letters to UNFCCC and MoEF/ UNFCC & DNA/ and found that PP has appropriately intimated UNFCCC and MoEF and seriously consider CDM fund in this project development.

Furthermore, PP has submitted certified copies of the Resolution/MD/ taken by Caparo Energy (India) Limited investment committee dated 22/07/2011 to the validation team. Thus, validation team concluded that the project developers were aware of CDM benefits before the investment decision was taken and CDM benefits were the decisive factor in going ahead with the project activity.

Application of methodology / methodological tools

Total capacity of the project activity is 75.6 MW which is greater than 15 MW limit. Thus, this project activity falls under the large scale. Therefore, the project activity used Approved Consolidated Methodology ACM0002 ver. 12.3.0. Further, the additionality of the project activity has been demonstrated using Guidance given vide Annex 05 of EB 62 and VVM version 1.2.

Alternatives

Being a large scale grid connected wind energy generation project, PP developed the project based on the Methodology ACM0002 Ver. 12.3.0. As per the methodology the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

According to paragraph 105 of VVM ver. 1.2, "*where the baseline scenario is not prescribed in the approved methodology, the DOE shall assess the list of identified credible alternatives to the project activity to determine the most realistic baseline scenario".* Thus, PDD should mention the credible alternatives to the project activity in order to determine the most realistic baseline scenario. As the selected methodology clearly mention the baseline scenario and the same has been opted in this project, therefore, no further analysis on baseline is required.

Validation Team, therefore, concludes that the PDD and the validation report conforms to the guidance given by EB vide paragraph 107 of VVM ver. 1.2 for the selection of baseline scenario.

Investment analysis

PDD mentioned that the project would not be economically or financially feasible without the revenue from the sale of certified emission reductions (CERs). The claim of the project developer has been assessed by the Validation Team through the following steps*:*

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 (Paragraph 112 (c) of VVM ver 1.2).

Having regard to the fact that the project is funded by a mix of debt equity and has selected the benchmark analysis. As per guidance 12 of Annex 05, EB 62, "*In cases where a benchmark approach is used the applied benchmark shall be appropriate to the type of IRR calculated. Local commercial lending rates or weighted average costs of capital (WACC) are appropriate benchmarks for a project IRR. Required/expected returns on equity are appropriate benchmarks for an equity IRR*". Considering the fact that the project is financed only by a mix of debt equity, PP has chosen equity IRR as financial indicator. Further, selection of return on equity as benchmark conforms to Guidance 12 of Annex 05, EB 62. Hence, validation team concludes that the investment analysis and financial indicator identified for this project activity are appropriate.

In the webhosted PDD, PP has applied the Guidance on Assessment of Investment analysis and published default country specific ROEs. PP considered the default values for the expected return on equity as mentioned in the para 8 of the Appendix of the Guidelines on the Assessment of Investment Analysis, version 05, EB 62, Annex 05, and inflation rate published by Reserve Bank of India (http://rbi.org.in/scripts/PublicationsView.aspx?id=11399) during decision making. Considering these data, revised benchmark for this project computed as 17.25%[2]. Validation teams assessed the revised PDD and the referenced documents and conclude that same are in line with the EB 62, Annex 05, hence, acceptable to the assessment team.

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 114 of VVM ver 1.2.

Further, during assessment, CAR B1, CL B2 and CL B3 have been raised to justify the appropriateness of the financial indicator. Subsequently, addressing these issues

[2] The web-hosted PDD has applied the benchmark based on ROE published in para 8 of EB 62 annex 5 along with the inflation of 5.5%, however the formula was not applied correctly and subsequently CL B3 was raised, thus benchmark value was corrected from 17.90% to 17.25%.

PP considered equity IRR which is in-line with guidance19, Annex 05, EB 62. This leads to closure of the findings.

b) Parameters and assumptions used: *(**The detailed justification of Assessment of Financial Parameters has been provided in Annex 3**)*

The project activity involves setting up 36 x 2.1 MW WTG in Rajasthan and exporting generated electricity to JVVNL at the rate of INR 4.22 per kWh/PPA/. The key parameters which determine the equity IRR of the project activity are project cost, PLF and profitability estimates.

In the financial calculation, the project cost is based on the offer letter submitted by Suzlon Energy Limited. The total cost of the project considered in the financial indicator calculation is INR 4723.2 mn i.e. INR 62.5 mn/MW. Copies of the offer letter/OFFER/ has been submitted to validation team. PP has considered the viability of this project based on the offer letters available during decision making. Validation team checked the offer letter and found that consideration of the project cost in the PDD is correct and it is in line with Para 6 of Annex 05, EB 62 as well as in compliance to Para 111 (b) VVM version 1.2. Hence, the project cost consideration is justified.

Moreover, validation team made an independent assessment considering the recently registered wind project located in Rajasthan listed in UNFCCC website regarding project cost per MW. Validation team checked the total project cost of other CDM projects. The table summarizes below:

Project no.	Date of Reg	Name	Mn/MW
6437	15-Jun-12	Grid Connected Wind Power Project by M/s. D. J. Malpani at Ratan Ka Bas (RKB), Rajasthan	62.31
6403	12-Jun-12	1.5 MW Dharampal Satyapal Sons Pvt. Ltd. Wind Project at Jaisalmer, Rajasthan 2010	59.07
5814	16-May-12	8.4 MW Wind Power Project in Rajasthan, India	55.32
5531	19-Apr-12	1.5 MW wind power project of Nirmal B. Thakkar H.U.F. at Rajasthan, India	59.98
5439	17-Apr-12	Wind power project in Jaisalmer, Rajasthan by Centaur Mercantile Pvt. Ltd.	55.70
5923	23-Mar-12	Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.	60.00

5090	28-Feb-12	Renewable Energy Wind Power Project in Rajasthan	59.34
5845	28-Feb-12	Grid Connected Wind Power Project by M/s. Giriraj Enterprises at Tejuva, Rajasthan	55.32
5794	14-Feb-12	Grid Connected Wind Power Project by M/s. D. J. Malpani in Rajasthan	58.93
5646	18-Jan-12	Grid Connected Bundled Wind Power Project in Jaisalmer, Rajasthan, India	57.50
5401	4-Jan-12	Installation of wind power project in Rajasthan and Tamil Nadu	56.00

From the above analysis, it is observed that the project cost/MW of windmills located in Rajasthan are ranging between INR 55.32 mn./MW to INR 62.31mn/MW.

Further, signed purchase orders/PO/ have been checked by the assessment team as the actual cost is available during the validation which is has been used for further substantiation. The project cost as per the offers comes to 62.5 mn./MW, however the actual project cost for this project activity is 4.73% less (INR 4500 mn.) than the offer cost, thus the actual values are 59.52 mn./MW which is within the range of of the project cost as considered by other project registered in 2012 in the state of Rajasthan. Further, PP has considered variation of -10% to +10% in the project cost in conducting the sensitivity analysis. The project remains additional even after consideration of the actual costs.

Since guidance 6 of Annex 05, EB 62 requires the cost should be based on the input parameters available at the time of decision making and the PP have submitted offer letters supporting this project cost. Therefore, considering the above assessment, validation team concluded that the project cost considered from respective offer letter in the computation of financial indicator is in conformity with guidance 6 of Annex 05, EB 62 as well as Para 111 (b), VVM and appropriate.

Further, during assessment, validation team raised CAR B9, CL B15 and responding to the findings, PP replied that land cost considered for financial estimation has been sourced from the offer letter issued by the WTG supplier as a complete package and 10% of the project cost is considered as Land cost. Further the basis for all input parameters is now provided. Hence, assessment team concludes that Project cost consideration for the financial calculation is appropriate which leads to closure of the CAR.

Assessment of Plant Load Factor (PLF):

PP considered the plant load factor from AWS True Power dated 2011-01-14, a third party engineering company, for expected electricity generation estimation. PP has submitted the copy of the PLF estimation report prepared by AWS True Power. PLF identified by the 3rd party for the location is 20.1% (Net of transmission losses). Same value has been used in the financial and the emission reduction calculation. PLF estimation by 3rd party engineering company is in line with Annex 11, EB 48 and acceptable to the assessment team.

The assessment team checked the PLF value as compared to the RERC order (L2) which mentions that PLF is 21%, further the assessment team made an independent assessment to assess the range of PLF values considered in Rajasthan for other wind power projects under CDM. In this regard, validation team observed two registered wind projects in Rajasthan, India. These project activities assumed the PLF at 19.51% and 19.30% (Reg. No. 4942) and 19.46% (Reg. No. 4679) to demonstrate the additionality.

In addition, the validation team has also cross checked the actual generation of existing registered CDM projects in the region (UNFCCC Ref No, 0243,0267,0447,0481 and 1166) and noted that the actual PLF achieved by the projects varies between 16.15% and 17.18%. Thus the consideration of 20.1% PLF is assessed to be appropriate in the project context.

Further, during assessment, validation team raised CAR B18 and CAR B19 w.r.t to the PLF used. Responding to the issues, PP replied the PLF values are sourced from Third party report, thus confirming to EB 48 annex 11. Hence, assessment team concludes that PLF consideration for the financial calculation is appropriate which leads to closure of the CAR B18 and CAR B19.

Assessment of Electricity Tariff:

The project activity is 75.6 MW electricity generation project from renewable source and supplies the electricity to the NEWNE grid. The electricity generated by this project activity would be exported to grid and PP has already entered into PPA with Jaipur Vidyut Vitran Nigam Limited. The tariff considered for the project activity is based on tariff order issued by Rajasthan Electricity Regulatory Commission dated 16.07.2009 (http://www.rerctest.rajasthan.gov.in/TariffOrders/Order77.pdf) which was available at the time of decision making. The tariff order was revised and the latest order available at the time of decision making was dated 2011-06-03 (http://www.rerc.rajasthan.gov.in/). According to RERC, the tariff is INR 4.22/kWh for the projects commissioned in year 2010-2011. The same has been considered in webhosted PDD as well as PDD v3 which are in conformity with guidance 6 of Annex 05, EB 62.

Furthermore, assessment team has also checked the actual tariff mentioned in PPA signed for further substantiation as these values are available during the validation stage. It is confirmed by the assessment team that the tariff assumed at the time of decision making (INR 4.22/kWh based on RERC tariff order) and actual PPA has varied as a new wind tariff order was in place on 14th December 2011. As per the new tariff order the tariff for the projects are INR 4.46/kWh. Since guidelines 6 of Annex 05, EB 62 requires the PP to consider only those input parameters that were available at the time of decision making, considering tariff of electricity from RERC tariff order is in conformity with guidance 6 of Annex 05, EB 62 and thus acceptable by the assessment team and is in compliance to Para 111 (b), VVM ver1.2.

In addition to that the sensitivity analysis carried out for the project takes into account the assessment and consideration of the higher tariff applicable to the project and the project remains additionality even after consideration of the higher tariff (INR 4.46/kWh).

During the assessment of tariff CAR B11 was raised as tariff was not consistent in the financial sheet and PPA, subsequent the PP clarified that the available tariff during decision making is (INR 4.22/kWh based on RERC tariff order) and actual PPA has varied as a new wind tariff order was in place on 14th December 2011. Thus the consideration of INR 4.22/kWh for financial assessment is acceptable as the same was available to the PP. Thus CAR B11 was closed.

Assessment of O& M cost:

During webhosting, PP considered the O&M cost from the offer letter/OFFER/ submitted by Suzlon Energy Limited. According to the offer letter, O&M cost for this project activity would be free for 1st year and 2nd year and from 3rd year onwards the cost would be INR 80.28 Mn with 5% escalation every year. The value comes to be 1.06 Mn/MW. Further Service tax would be levied extra along with the said value thereby the cost would go even higher. Same value has been used in the financial calculation as same was available during decision making and hence applicable. Further the value was confirmed with the actual O&M contract signed which is for INR 76.5 Mn which is around 4.7% less than the offer price. However, according to guidance 6 of Annex 05, EB 62, the cost should be based on the input parameters available at the time of decision making and the PP have submitted offer letters/OFFER/ supporting this consideration. Therefore, considering the above assessment, validation team concluded that the O&M cost considered from respective offer letter in the computation of financial indicator is in conformity with guidance 6 of Annex 05, EB 62.

Further, during assessment, validation team raised CAR B14 and responding to this CAR, PP replied that O&M cost considered for financial estimation has been sourced from the offer letter issued by the WTG supplier. Hence, assessment team concludes that O&M cost consideration for the financial calculation is appropriate which leads to closure of the CAR B14.

Assessment of Tax computation:

The project developer has adopted book depreciation rates as per Schedule XIV of the Companies Act, 1956 for computing book profit and Income Tax Act 1961 stipulated for income tax calculation, which are in conformity with the accepted accounting principles adopted by the company and income tax laws in the host country. The block of assets has been computed for depreciation purpose as per the accepted accounting principles. Tax liability has been calculated as per the income tax rules and the rulings given. In computing the income tax liability, the project developers have considered Tax holiday (u/s 80IA of the Income Tax Act, 1961). Accelerated depreciation on plant and machinery at the rate of 90% of the project cost is sourced from IT act. Book depreciation on project assets of 5.28% is sourced from Company's act 1956. The corporate tax rate 32.45% while MAT has been considered at 20.01%. The tax rates assumed corresponds to the tax rate prevailing at the time of taking decision (conformity to guidance 6 of Annex 05, EB 62). Hence, these assumptions are appropriate during decision making context.

Further, during assessment, validation team raised CAR B5, CL B7, CAR B16 and CAR B17 as salvage value, depreciation were not applied correctly. Further MAT set off was not applied and taxation of CER income was not applied. Responding to this CAR, PP applied the MAT set off and tax on the CER income and the salvage value is considered as 10% in the terminal year. The project proponent is claiming Generation based incentive (GBI) thus it is not eligible for additional depreciation. Hence, assessment team concludes that taxation for the financial calculation is appropriate which leads to closure of the CAR B5, CL B7, CAR B16 and CAR B17.

c. Cross checking parameters:

The cost of windmills, electricity tariff, O&M cost, depreciation and tax rate have been checked with offer letters/OFFER/, tariff order, Income Tax Act/ACT/ and project cost of other projects. The documents supporting the financial calculations, in the opinion of Validation Team, are therefore authentic and conform to the guidance given by EB. CARs and CLs were raised as non-conformities and they were either set right or clarified. With the corrections having been incorporated, the input costs considered conform to guidance on investment analysis issued by EB. 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 para 95 and 111 of VVM ver 1.2.

Further, during assessment, validation team raised various findings i.e. CAR B4, CAR B6, CAR B8, CAR B10, CL B12 and CAR B13 and responding to this CAR, PP revised the calculations. Hence, assessment team concludes that the parameters

considered for the financial calculation is appropriate. Subsequently the CARs/CLs were closed based on the revised PDD and financial calculations.

d. Assessment of correctness of computation:

The assessment involved checking the data input taken from offer letter, PPA, tariff order, adoption of correct accounting principle and arithmetical accuracy. Validation Team checked the documents and ensured that appropriate input has been taken in the project cost and projections. Based on the CARs and CLs, corrections were incorporated or issues were clarified. The arithmetical accuracy was also found to be correct.

The Equity IRR has been computed for a period of 20 years/RERC/, which is the life time of the project and is in conformity with the Annex 05 of EB 62. As required by Annex 05 of EB 62 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 as 10% of the project cost which is acceptable. In computing the IRR, the project developer has taken into account profit after tax, depreciation tax shield, Generation based incentive and salvage value (in the terminal year). The principle adopted conforms to the accepted accounting and taxation principles.
Further, during assessment, validation team raised various findings i.e. CAR B4, CAR B6, CAR B8, CAR B10, CL B12 and CAR B13 and responding to this CAR, PP revised the calculations. Hence, assessment team concludes that the parameters considered for the financial calculation is appropriate. Subsequently the CARs/CLs were closed based on the revised PDD and financial calculations.

Therefore, from the above arguments/ justifications it is evident that the project is not business as usual scenario and requires CDM benefits to sustain.

e. Sensitivity analysis:

The Guidance on Assessment of Investment Analysis Version 05.0 (EB 62) requires the robustness of the conclusion arrived at to be proved through a sensitivity analysis by varying the critical assumptions to a reasonable variation. The project developer has identified Plant Load Factor (PLF), Project cost, Electricity tariff and O&M cost as critical assumptions. These critical parameters constitute more than 20% of either total project costs or total project revenues. The sensitivity analysis reveals that even under more favorable conditions, the IRR without CDM revenue would not cross the benchmark return as given in the following table:

Parameters	Variation	Equity IRR Without CDM
Base Case	**0%**	**7.55%**
Project Cost	(-)10%	9.97%
	(+)10%	5.60%
Plant Load Factor	(-)10%	5.40%
	(+)10%	9.61%
O&M Cost	(-)10%	7.82%
	(+)10%	7.29%
Electricity Tariff	(-)10%	6.78%
	(+)10%	8.27%
Benchmark	-	17.25%

According to the para 6 of Annex 05, EB 62 guidelines, PP has to consider the input parameters that were available at the time of decision making. The above sensitivity analysis also based on the same input parameters. Further in continuation with the above analysis, validation team consider also consider the actual scenario of the project. Validation team assesses the project cost with actual purchase order issued, and PPA.

As evident from the sensitivity analysis the project activity does not cross the benchmark, however the levels at which the benchmark would be achieved and the probability of occurrence are assessed as follows;

PLF –The PLF considered as per the independent third party report is 20.10%. The Rajasthan Electricity Regulatory Commission's order dated 16/07/2009[3] considers a PLF of 20.1% for determining the tariff. Further the DOE checked the probability of reaching the benchmark with a higher PLF and it was observed that with an increase in 45.32% in the PLF, the equity IRR crosses the benchmark. The actual PLF value comes to 29.21%. However, the probability of the PLF going as high as 29.21% for a sustained period of 20 years is unrealistic and highly unlikely.

Power Purchase Tariff – The tariff applied in the financial assessment is Rs. 4.22/kWh however the actual price as per the PPA signed for the project is Rs. 4.46/kWh (5% higher than the value available at the time of decision making). However, with an increase in 230% in the tariff, the equity IRR crosses the benchmark. Moreover, as the project has already signed a PPA for a period of 20 years at the price of Rs. 4.46/kWh thus and further increase is unlikely.

[3] http://www.rerc.rajasthan.gov.in/TariffOrders/Order77.pdf

Project cost – The project has already been implemented and the actual cost comes to be 4.73% lower than the offer values which were available during the decision making. The benchmark value is achieved only with a decrease in 30.1% in the project cost; however the scenario is not possible as the project has already been implemented. Therefore the probability of any further reduction in project cost cannot be expected.

O&M cost – The PP is already into agreement with Technology Supplier i.e. Suzlon for O&M of the project. The actual O&M cost is 4.7% lower than the value considered thus any further reduction is ruled out. Further the project reaches the benchmark value only with a decrease in over 411.0% in the O&M cost, such drastic reductions are in the costs is unrealistic and unlikely to happen.

According to the revised financials, validation team found that equity IRR have been improved considering the CDM revenue. Equity IRR with and without CDM revenue are mentioned below:

Equity IRR without CDM Revenue	Benchmark	Equity IRR with CDM Revenue
7.55%	17.25 %	10.25 %

Considering the above assessment on additionality demonstration, benchmark selection, 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. Hence, validation team confirms that CER revenues alleviate the project feasibility.

Further, during assessment, validation team raised various findings i.e. CAR B4, CAR B6, CAR B8, CAR B10, CL B12 and CAR B13 and responding to this CAR, PP revised the calculations. Hence, assessment team concludes that the parameters considered for the financial calculation is appropriate. Subsequently the CARs/CLs were closed based on the revised PDD and financial calculations.

Barrier analysis

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

Common practice analysis

In this project activity, PP has demonstrated the common practice analysis according to the “Tool for the demonstration and assessment of additionality” (Version 06.0) and “Guidelines on common practice” version 02.0, the common practice analysis is carried out on the similar projects in the same region and taking place in a comparable environment with regards to regulatory framework, investment climate

etc. Therefore, criteria chosen for the common practice analysis are similar large scale project activities in the same region (country) and the project activities should be implemented after 2003 as the wider power sector reforms happened in India since 2003, which led to diversification in the ownership of power generation.

The project activity is a 75.6 MW wind power project installed by M/s Bindu Vayu Urja Private Limited, Rajasthan to generate and supply electricity to the NEWNE grid. Common practice analysis has been conducted based on the following criteria:

Applicable Geographical Area (Para 5): In line with "Guidelines on common practice" version 02.0, the entire host country (India) has been selected as the geographical area for common practice analysis as default.

The project activity measure is listed in paragraph 6 of the Additionality tool as mentioned above. Therefore, common practice analysis is carried out step by step as per paragraph 47 of the tool as follows:

Stepwise approach to common practice analysis:

Step 1:

The design output capacity of the project activity is 75.6 MW. Therefore, the applicable output range will be 37.8 MW to 113.4 MW, i.e. ±50% of installed capacity of the project activity.

Step 2:

The step wise approach is described as follows;

a. Entire Host country is considered as applicable geographical area which is appropriate.
b. PP has selected same measure (Wind) as the proposed activity as renewable energy projects falling under para 2(b) of the guidelines.
c. As project activity is a wind projects only wind projects are considered.
d. All wind projects considered are correctly taken as providing similar goods and services.
e. Applicable output range of the capacity is considered as 37.8 MW to 113.4 MW as per step-1
f. Project started commercial operation before the start date of the project i.e. 29/07/2011 has been considered.

The table below provides details of the wind power projects which are included in the analysis and used for calculating N_{all}:

Technology	Power Projects including CDM projects in applicable output range in India
Wind[4]	15 (Detailed list of projects is described in the PDD section B.5)

Step 3:

From the list of power plants mentioned in Step 2 the list of power plants which are neither registered CDM project activities, project activities submitted for registration, nor project activities undergoing validation is given below:

All the 15 projects under the given capacity are under the CDM pipeline and the same has been confirmed from the CDM website.

Thus N_{all} = 0

Step 4:

Among all the power plants identified within N_{all}, the number of power plants that apply technologies different from the technology applied to the project are described step wise as follows;

a. As the energy source/fuel is same as per step 2 (C), no project is identified under this criteria.
b. This is not applicable as project activity is a wind project
c. Under size of installation as project activity is a large scale, projects between 37.8 MW to 113.4 MW are identified under this criterion.
d. Based on investment climate considering the fact that in host country each state has its own regulatory guidelines, projects falling in other state than Rajasthan are considered as different project. Also As a part of legal regulations and policy requirement under host country regarding electricity act came in force in 2003. Major reforms were initiated in power sector in India in the year 2003 when Electricity Act 2003, came into force. State Regulatory Commissions/RERC/ started formulating Tariff Orders for Wind Power projects in their respective states. As verified from the various state regulatory commission tariff orders, it is confirmed that the tariff rates, Potential for generation, other expenditures are different for different states. Hence projects commissioned prior to 2003 and commissioned in other state than Rajasthan are considered as different projects.

[4] Projects commissioned before the start date of the project activity within the applicable output range have been taken from “Directory, Indian Wind power 2011”.

e. Under nature of investment no project is identified.

Moreover as N_{all} is zero, thus $N_{diff} = 0$

Step 5:

The proposed project activity is a "common practice" within a sector in the applicable geographical area if both the following conditions are fulfilled:

(a) the factor F is greater than 0.2, and

(b) N_{all}-N_{diff} is greater than 3

For the project activity, the F factor and N_{all}-N_{diff} are calculated and the results are assessed as follows:

$F = 1-N_{diff}/N_{all} = 1-(0/0) = 0$

And, $N_{all}-N_{diff} = 0-0 = 0$

The project activity does not fulfill any of the conditions. Therefore, it is concluded that the project activity is not a common practice in the applicable geographical area. However during the validation progress CAR B22 has been raised as the common practice analysis was demonstrated as per Additionality tool version 5.2, however the same was revised to confirm the latest applicable additionality tool version 6.0 and latest Guidelines on common practice analysis version 2.0. Thus CAR B22 was closed out.

Summary

In the above background, Validation Team concludes that the project would require CDM revenue and is additional. CDM benefits will enable the project to become financially attractive. Hence, CDM benefits will enable the project developer to improve the return. Assessment team also confirms that the project is not a business as usual scenario.

5.2.6 Monitoring Methodology

The monitoring plan of the PDD followed the approved consolidated monitoring methodology ACM0002 version 12.3.0 which is valid from 17 Sep 10 to 11 Jan 13. http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT. The same is checked by the assessment team and found correct.

5.2.7 Monitoring Plan

The project activity correctly applies the approved consolidated monitoring methodology ACM0002 version 12.3.0.

Parameters determined ex-ante:

Baseline emission factor of NEWNE Grid is establish ex-ante based on the consolidated monitoring methodology ACM0002 version 12.3.0, using a combined approach consisting 75 % operating margin and 25 % build margin. The emission coefficient from official data published in Central Electricity Authority (CEA) CO_2 Baseline[/CEA/] database version 07, available to the project participant at the time of submission of PDD for validation and global stakeholders consultation process. CEA is an official source of Ministry of Power, Government of India have worked out baseline as CO_2 baseline database version 07. The assumption were verified by the validation team and found to be correct.

Parameters determined ex-post:

The parameters monitored ex-post involves net electricity supplied to the grid (calculated from electricity exported and imported) to the NEWNE grid by the project activity. The WTG under this project activity is connected to common feeder where other WTG (not under this project activity) are also connected; hence an apportioning method has been used by the JVVNL for the net electricity exported through individual project proponent. It will be sourced from Joint meter reading issued by JVVNL which is the authorized party and thus is acceptable. Daily generation from each WTG is being also measured at control panel, which is used to calculate the net electricity exported to grid by the project activity. The net electricity supplied to the grid is the basis of emission reduction calculation. The metering is carried out jointly at substation by the O&M contractor and state electricity board official.
The same has been described in the revised PDD[/PDD/] which is checked by the validation team and found correct.

During the site visit the assessment team found that the metering system for the project activity consists of one main meter and one check meter at metering point at substation. The main meter is capable for recording export and import from each feeder. The representative of state electricity board and O&M personnel jointly take the reading from the meter installed at substation on fixed day of every month and the monthly billing statement are issued by state electricity board. The billing statement is showing the energy exported and energy imported by the respective WTG for the particular month.

The main meter will be sealed in the presence of representative of the project participant and state electricity board. Any meter seal shall be broken only by the Electricity board representative in the presence of project participant`s representative whenever the main meter is to be inspected, tested, adjusted, repaired or replaced. All main meter are to be test checked/ calibrated once in a year.

However, CAR B26 regarding the monitoring parameters, transmission loss and calibration of the cluster meters were raised during the course of validation. Subsequently, PP has revised the PDD according to the apportioning procedure. Further the calibration of the cluster meter and transmission loss is also mentioned which leads to the closure of the CARs.

5.2.8 Project Management Planning

Electricity export to the grid and import from the grid is metered by main and check tri-vector energy meters. The main meter reading is taken jointly on a fixed day of every month for the preceding month at the delivery point and signed by the representatives of state utility and O&M personnel as discussed in PPA/PPA/. In the event of failure of main meter, the check meter will be used in monitoring the electricity data.

The WTG is equipped with an integrated electronic meter. This meter is connected to the Central Monitoring Station (CMS) of the O&M service provider of the entire wind farm. The generation data of WTG can be monitored as a real-time entity at CMS by the O&M contractor. The agency is experienced in the monitoring system and is managing O&M/O&M/ of numerous other wind farm projects.

The validation team therefore is of the opinion that the project participant through the O&M agency is capable of implementing the monitoring plan in the context of the project activity.

Calibration of all the meters is done by JVVNL officials as per the industry standards. The energy meter recording the export and import from the grid at substation is under the control and supervision of JVVNL. Similarly O&M contractor is responsible for monitoring of the generation data at CMS. It is reported that the data will be kept for 2 years following the end of the crediting period.

The responsibilities and authorities of project management, data handling and recording, measurement methods and QA/QC procedure have been systematically established and formalized and the same was verified during the site visit.

5.2.9 Crediting Period

PP has chosen fixed crediting period for the project activity i.e. 10 years which is consistent in the entire PDD. The start date of crediting period during the global stakeholder's consultation process was 01/09/2012 but as the validation process, PP revised to 2012/12/31 or the date of registration whichever is later based on CAR C1. The revised date is appropriate and acceptable to the validation team.

5.2.10 Environmental Impacts

The project activity is expected to have positive impacts and no significant adverse environmental impacts are foreseen. Since, the project activity is a electricity generation from renewable source (i.e. wind energy) therefore no negative impact are envisaged. . There is no mandatory legal requirement for carrying out an environmental impact assessment. The Ministry of Environment and Forests (MoEF), Government of India (GoI) notification[5] dated September 14, 2006 regarding the requirement of Environment Impact Assessment (EIA) studies states that any project developer in India needs to file an application to the Ministry of Environment and Forests (including a public hearing and an EIA) in case the proposed industry or project is listed in a predefined list. The list includes thirty nine project activities that require EIA studies. The wind power projects are not included in this list and thus an EIA study is not required.

However, assessment team has verified all the clearances like statutory clearances/SC/, commissioning certificate/CS/ and Power Purchase Agreement/PPA/ for the WTG and confirms that all the clearances obtained are in accordance with the procedures required by the host party.

5.2.11 Comments by Local Stakeholders

As per the CDM requirements, it is necessary to invite the relevant stakeholders, before the validation process starts. The stakeholders' consultation meeting was conducted to discuss on the proposed CDM project. Details of the local stakeholders' consultation meetings are as follows:

Date & Time of the meeting: 09/12/2011
Venue: village-Kalandonger, District-Jodhpur (Rajasthan)

The stakeholders identified by the project participant were local villagers who are the major population of the particular area, NGOs, governmental agencies, contractors, local communities and O&M Team involved in the project. Validation team verified the list of participants who attended the stakeholder meeting and feedback questionnaire/LSHC/ and confirms the stakeholders identified are relevant. Further during the discussions with the stakeholders and review of MoM of the stakeholder meet, it is assessed that there are no negative comments raised by the stakeholders.

[5] As per the Environment Protection Rule, 1986 (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii) MINISTRY OF ENVIRONMENT AND FORESTS)
http://envfor.nic.in/legis/eia/so1533.pdf pages 10-18

6 VALIDATION OPINION

M/s Bindu Vayu Urja Private Limited (BVUPL) have commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: "*Kaladonger wind power project in Rajasthan*" 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 validation 19 Corrective Action Requests (CARs) and 10 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 (HCA) no. 4/13/2012-CCC dated 2012-11-07.
- 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 1,268,170 tCO2e are most likely to be achieved within the crediting period.

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.

Mumbai, 2012-12-24

Mr. Prasad Jakkaraju
TÜV NORD JI/CDM CP
Validation Team Leader

Essen, 2012-12-24

Mr. Rainer Winter
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/**CON-DOE**/	Contractual Relationship with DOE dated 21/10/2010
/**CC**/	Commissioning certificates dated 30/03/2012 and 31/03/2012.
/**PPA**/	Power Purchase Agreement dated 03/02/2012 for 52.5 MW and 22/03/2012 for 23.1 MW.
/**HCA**/	Host Country Approval from MoEF dated 07/11/2012
/**IRR**/	Financial calculation sheet version 1 dated 05/04/2012 Financial calculation sheet version 2 dated 20/07/2012 Financial calculation sheet version 3 dated 31/08/2012
/**LOAN**/	IDFC letter of Intent dated 2011/11/29 IREDA sanction letter dated 2012/02/15 IREDA sanction letter with revised terms dated 2012/07/20
/**LSHC**/	• Stakeholder meeting dated 9/12/2011 • Stakeholder meeting presentation • Stakeholder minute of meeting
/**MD**/	Management Committee Decision letter dated 22/07/2011
/**NC**/	Notification to host country DNA and EB on the project intention dated 07/11/2011 respectively.
/**O&M**/	Operation and maintenance agreement with the equipment supplier 2011/07/29
/**OR**/	Specific onsite organization chart for the JI/CDM project activity
/**PDD**/	Project Design Document version 1 dated 05/04/2012 based on which validation is carried out. Project Design Document version 2 dated 20/07/2012 based on which validation is carried out. Project Design Document version 3 dated 25/09/2012 based on which validation is carried out. . Project Design Document version 4 dated 24/12/2012 based on which validation is concluded.

Reference	Document
/**PI**/	Project implementation schedule
/**PLF**/	Estimation of PLF by third party AWS True power dated 14 January 2011 which has been contracted by Suzlon Energy Limited on behalf of the project proponent.
/**PO**/	Purchase order issued to Suzlon India Limited dated 29/07/2011
/**OFFER**/	Offer letter from Suzlon India Limited dated 04/07/2011
/**SLD**/	Electricity connection diagram to the grid showing metering location
/**TS**/	Equipment specification-Technical for the WTGs installed onsite
/**XLS**/	Emission reduction calculation sheet ver. 1 dated 05/04/2012 Emission reduction calculation sheet ver. 2 dated 20/07/2012 Emission reduction calculation sheet ver. 3 dated 30/08/2012

Table 7-2: Background investigation and assessment documents

Reference	Document
/**ACM002**/	Consolidated baseline methodology for grid-connected electricity generation from renewable sources, version 12.3.0
/**CPM**/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/**FILL** /	CDM SSC PDD Filling guideline version 07
/**GLOSS**/	Glossary of CDM terms (version 07.0)
/**TOOL**/	• Clarification on national and/or sectoral policies Para 27 EB 55 • Guideline on assessment of Investment Analysis EB62 Annex 5 • Guidelines for the reporting and validation of Plant Load Factor Annex 11 EB 48 • Guidelines on the demonstration and assessment of Prior Consideration of the CDM EB 62 Annex 13 • Tool to determine the remaining lifetime of the project activity in line with Annex 15 EB 50 • Tool to calculate the emission factor for an electricity system version 02.2.1 • Guidelines for demonstration of Common practice version 02

Reference	Document
/**IPPC-RM**/	Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual
/**KP**/	Kyoto Protocol (1997)
/**MA**/	Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7))
/**TA**/	Tool for the demonstration and assessment of additionality (Ver. 5.2).
/**VVM**/	Validation and Verification Manual (Version 1.2, EB 55)

Table 7-3: Websites used

Reference	Link	Organisation
/**ACT**/	http://www.incometaxindia.gov.in/	• Income tax Act, 1961. • Companies Act 1956
/**CEA**/	http://www.cea.nic.in/	Central Electricity authority
/**IPCC**/	http://www.ipcc-nggip.iges.or.jp/	IPCC publications
/**MNRE**/	http://www.planningcommission.nic.in/aboutus/committee/wrkgrp11/wg11_power.pdf	Ministry of New and Renewable Energy, Government of India, December 2006.
/**MoEF**/	www.envfor.nic.in	Ministry of Environment and forest, Govt of India
/**RBI**/	www.rbi.org	Reserve Bank of India
/**RERC**/	http://www.rerc.rajasthan.gov.in/Orders.aspx	Rajasthan Electricity Regulatory Commission
/**UNFCCC**/	http://cdm.unfccc.int/	UNFCCC

Table 7-4: List of interviewed persons

Reference	MoI[1]		Name	Organisation / Function
/**IM01**/	V	☒ Mr. ☐ Ms	Satish Sharma	Sr. Engineer, SEL
/**IM01**/	V	☒ Mr. ☐ Ms	M.K. Gomgaon	Sr. Manager, SEL
/**IM01**/	V	☒ Mr. ☐ Ms	Anil Patil	Deputy Manager, BVUPL
/**IM01**/	V	☒ Mr. ☐ Ms	T Shekhar	Asst. Manager, BVUPL
/**IM01**/	V	☒ Mr. ☐ Ms	Bhupendra Singh	Supervisor, SEL
/**IM01**/	V	☒ Mr. ☐ Ms	Avadhesh Upadhyay	Engineer, SEL
/**IM01**/	V	☒ Mr. ☐ Ms	Shaitan Singh	Asst. Admin, SEL

[1)] Means of Interview: (**T**elephone, **E**-Mail, **V**isit)

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 *The written approval of the parties involved is a mandatory requirement*				
A.1.1. Has the project provided written approvals of all parties involved? (EB 55 Annex 1, § 44) *Indicate whether a letter of approval has been received, with a clear reference to the supporting documentation.* *Indicate whether this letter was provided to the DOE by the project participants or directly by the DNA*	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* CAR A1 has been raised in this regards.	/IM01/	~~CAR A1~~	OK
A.1.2. Are the approvals issued from organisations listed as DNAs on the UNFCCC CDM website? (EB 55 Annex 1, §§ 44, 47, 48, 49 (b), 49 (c), 53) *Indicate the means of validation employed to assess the authenticity, i.e. in case of doubt whether LoA has been*	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview	/IM01/	~~Pending closure of CAR A1~~	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.
verified with the DNA. Further describe which entity submitted the LoA for validation.	the same was found by the team *Conclusion:* Pending closure of CAR A1 in this regards.			
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))	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CAR A1.	/IM01/	~~Pending closure of CAR A1~~	OK
A.1.4. Do the written approvals confirm that the participation is voluntary? (EB 55 Annex 1, § 45(b))	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CAR A1.	/IM01/	~~Pending closure of CAR A1~~	OK
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))	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process.	/IM01/	~~Pending closure of~~	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.
	Justification of evidences: During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CAR A1.		~~CAR A1~~	
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)	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CAR A1.	/IM01/	~~Pending closure of CAR A1~~	OK
A.1.7. Are the written approvals unconditional with regard to A.1.3 to A.1.6? (EB 55 Annex 1, § 46)	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CAR A1.	/IM01/	~~Pending closure of CAR A1~~	OK
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?	*Description:* The project participant listed in section A3 and Annex1 of the PDD are consistent. Further, during document verification, validation team observed that BVUPL is the	/PDD/ /MD/	~~CL 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.
(EB 55 Annex 1, § 51)	project proponent of this project whereas board resolution letter mentioned that directors of Caparo Energy (India) Limited took the decision for this project. Hence, PP is requested to clarify the relationship between both the organizations and hence CL A2 has been raised. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* The information of PP is consistent; however CL A2 has been raised.			
A.1.9. Are all project participants listed in the PDD approved at least by one Party involved? (EB 55 Annex 1, § 51) *Indicate whether the participation of the project participant(s) has been approved by a Party to the Kyoto Protocol.* *Describe the means of validation employed to draw this conclusion.*	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CARA1.	/IM01/	~~Pending closure of CAR A1~~	OK
A.1.10. Are any other project participants approved but not listed in the PDD? (EB 55 Annex 1, § 52)	*Description:* Host country approval is a pre requisite for registration of the project activity. Hence pending CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team	/IM01/	~~Pending closure of CAR A1~~	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.
	Conclusion: Pending closure of CARA1.			
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) *Check whether the PPs listed in the published PDD are still listed in the PDD going to be submitted to request for registration.*	*Description:* The DOE has direct contractual relationship with BVUPL. *Justification of evidences:* The contract is checked and found correct. *Conclusion:* The DOE has direct contractual relationship with the project participant.	/CON-DOE/	OK	OK
A.2. Contribution to Sustainable Development *The project's contribution to sustainable development is assessed.*				
A.2.1. Has the host country confirmed that the project assists it in achieving sustainable development? (EB 55 Annex 1, §§ 125–127) *Contains a statement confirming whether the letter of approval by the DNA of the host party confirmed the contribution of the project to the sustainable development of the Host Party.*	Description: Host country approval is a pre requisite for registration of the project activity. Hence CAR A1 was raised during the validation process. Justification of evidences: During the site visit and interview the same was found by the team Conclusion: Pending closure of CAR A1	/IM01/	~~Pending closure of CAR A1~~	OK
A.2.2. Will the project create other environmental or	*Description:* Host country approval is a pre requisite for	/IM01/	~~Pendi~~	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.
social benefits than GHG emission reductions? (EB 55 Annex 1, §§ 125–127) *Describe the other positive aspects not related to GHG emission reduction on the environment.*	registration of the project activity. Hence CAR A1 was raised during the validation process. *Justification of evidences:* During the site visit and interview the same was found by the team *Conclusion:* Pending closure of CAR A1		~~ng closure of CAR A1~~	
A.3. PDD editorial aspects *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.*				
A.3.1. Has the latest version of the PDD form been applied? (EB 55 Annex 1, § 55)	*Description:* The project has applied CDM PDD version 3 which is the latest at the time of Global Stakeholder consultation process. *Justification of evidences:* http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html been cross checked by the assessment team and found that latest version of the PDD form been applied. *Conclusion:* Latest version of PDD has been applied.	/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.
A.3.2. Has the PDD been duly filled in accordance with the latest guidance(s)? (EB 55 Annex 1, §§ 56–57)	*Description:* The PDD is filled with latest guidelines. However, during document review, validation team observed that Section A.4.3 of the PDD is not filled as per the CDM-PDD filling guideline version 7 and technical specification of the WTG mentioned in the PDD is generic. Hence, CAR A3 has been raised during the validation process. *Justification of evidences:* PDD and PDD filling guideline have been checked by the assessment team. *Conclusion:* The PDD has not been duly filled in accordance with the latest guidance therefore CAR A3 has been raised.	/UNFCCC/ /FILL/ /PDD/	~~CAR A3~~	OK
A.4. Technology to be employed *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.*				
A.4.1. Does the PDD contain a clear, accurate and complete project description? (EB 55 Annex 1, §§ 58–59, 64) *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.*	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kalandonger in the state of Rajasthan in India. The project would be using 36 Wind Turbine Generators of Suzlon (Model no: S95_90) each with capacity of 2.1 MW. The electricity generated by the WTGs will be sold to the state utility. The electricity that will be produced through the	/TS/ /PDD/ /IM01/ /OFFER/	~~Pending closure of CAR A3~~ ~~CAR~~	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.
Pl. consider esp. chapters *A.2, A.4.2 and A.4.3 (in case of LSC PDD) for assessment.* *§64 (a) Describe the process undertaken to validate the accuracy and completeness of the project description.* *§64 (b) Contain the DOE's opinion on the accuracy and completeness of the project description.*	wind turbine generators will be provided to the NEWNE grid and will replace existing and planned electricity generation in the grid which is primarily fossil fuel based. The project activity therefore generates emission reductions by avoiding CO_2 emissions from electricity generation through fossil fuel based grid connected power plants. Further, in the PDD, PP uses a generic technical description of the WTG. Further, during document review, validation team observed that coordinates of the project activity mentioned in the PDD is not indicates the actual project. Hence pending CAR A3 and CAR A4 have been raised. *Justification of evidences:* The turbine which is the main component of the project activity is of 2.1 MW capacity. Technical specification is being checked by the assessment team. Further, justification would be provided after the closure of pending CAR. *Conclusion:* The PDD does not contain a clear, accurate and complete project description. therefore CAR A3 and CAR A4 have been raised		~~A4~~	
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?	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kalagonger in the state of Rajasthan in India. The project would be using 36 Wind Turbine Generators of	/TS/ /IM01/ /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.
	Suzlon (Model no: S95_90) each with capacity of 2.1 MW. The electricity generated by the WTGs will be sold to the state utility. The electricity that will be produced through the wind turbine generators will be provided to the NEWNE grid and will replace existing and planned electricity generation in the grid which is primarily fossil fuel based. The project activity therefore generates emission reductions by avoiding CO_2 emissions from electricity generation through fossil fuel based grid connected power plants. *Justification of evidences:* During the site visit it was found that the project activity will be implemented as described in the PDD at this stage of validation. *Conclusion:* The project activity is a greenfield project activity. The validation team convinced that the project will be implemented as described in the PDD. However, compliance of the same should be checked during the verification process.			
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? (EB 55 Annex 1, §§ 63–64)	*Description:* The project activity is a Greenfield project and does not involve any alteration of the existing installation or process. *Justification of evidences:* During the site visit it was found that the project activity is under implementation stage.	/IM01/ /PDD/ /TS/	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.
Describe the steps taken to validate this issue.	*Conclusion:* The project activity is a Greenfield project activity.			
A.4.4. Does the project design engineering reflect current good practices? *Consider the equipment specifications, literature (e.g. EU BREF papers) and professional experiences. Describe the process undertaken to assess the engineering.*	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kalagonger in the state of Rajasthan in India. The project would be using 36 Wind Turbine Generators of Suzlon (Model no: S95_90) each with capacity of 2.1 MW. The electricity generated by the WTGs will be sold to the state utility. The electricity that will be produced through the wind turbine generators will be provided to the NEWNE grid. The turbine is supplied by M/s Suzlon Energy limited who is the operation and maintenance contractor for the project activity. The technology is well established in India and the project design reflects current good practices. *Justification of evidences:* DOE sectoral expertise is sufficient enough to prove that the project activity project design engineering reflects current good practices which is in line with VVM and is acceptable to the validation team. *Conclusion:* DOE sectoral expertise is sufficient enough to prove that the project design engineering reflect current good practices.	/TS/ /IM01/ /PDD/ /VVM/	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.
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? *Describe the process undertaken to assess the state of the art technology.*	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kalagonger in the state of Rajasthan in India. The project would be using 36 Wind Turbine Generators of Suzlon (Model no: S95_90) each with capacity of 2.1 MW. The electricity generated by the WTGs will be sold to the state utility. The electricity that will be produced through the wind turbine generators will be provided to the NEWNE grid. The turbine is supplied by M/s Suzlon Energy limited who is the operation and maintenance contractor for the project activity. The project use state of the art technology or would the technology result in a significantly better performance. *Justification of evidences:* DOE sectoral expertise is sufficient enough to prove that the project activity project design engineering reflects current good practices which is in line with VVM and is acceptable to the validation team. *Conclusion:* DOE sectoral expertise is sufficient enough to prove that the project uses state of art technology.	/TS/ /IM01/ /PDD/ /VVM/	OK	OK
A.4.6. Does the project make provisions for meeting training and maintenance needs? *Describe the process undertaken to assess the maintenance and training needs.*	*Description:* SEL is the O&M contractor for this project and they are an ISO 9001:2001 certified company and has proper procedures for meeting training and maintenance. Further, project is	/TR/ /O&M/	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.
	under implementation stage. Hence, PP will create a CDM monitoring team during this time. SEL will provide the appropriate training to site personals in due course. *Justification of evidences:* During the site visit, it was conveyed that SEL will provide the appropriate training to site personals in due course. *Conclusion:* SEL is the O&M contractor for this project and they are an ISO 9001:2001 certified company and has proper procedures for meeting training and maintenance.			
A.5. Small scale project activity *It is assessed whether the project qualifies as small-scale CDM project activity*				
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))	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kaladonger in the state of Rajasthan in India. Hence, it falls under large scale criteria. *Justification of evidences:* The PDD, technical specification and the glossary of terms have been checked by the assessment team. *Conclusion:* The project activity is a large scale project.	/PDD/ /TS/ /GLOSS/	NA	NA
A.5.2. Does the project apply one of the approved	*Description:* The project activity involves the installation of	/PDD/	NA	NA

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
small scale categories and any methodology and tool referred therein? (EB 55 Annex 1, § 136 (b)) *Check, if applicable the expiry dates of the applied methodology. Further, take into consideration the general guidance to the methodologies[6], which provide guidance on equipment capacity, equipment performance, sampling and other monitoring related issues.*	75.6 MW Wind Power Plant in Kaladonger in the state of Rajasthan in India. Hence, it falls under large scale criteria. *Justification of evidences:* The PDD, technical specification and the glossary of terms have been checked by the assessment team. *Conclusion:* The project activity is a large scale project.	/TS/ /GLOSS/		
A.5.3. Is the small scale project activity not a debundled component of a larger project activity? (EB 55 Annex 1, § 136 (c)) *Describe the steps taken to validate this issue. Pl refer to the Compendium of guidance on debundling (EB ~~36, Annex 27~~ 54, Annex 13).*	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kaladonger in the state of Rajasthan in India. Hence, it falls under large scale criteria. *Justification of evidences:* The PDD, technical specification and the glossary of terms have been checked by the assessment team. *Conclusion:* The project activity is a large scale project.	/PDD/ /TS/ /GLOSS/	NA	NA
A.5.4. Is an assessment of the environmental impacts of the proposed SSC CDM project activity required by the host Party? (EB 55 Annex 1, § 136 (d))	*Description:* The project activity involves the installation of 75.6 MW Wind Power Plant in Kaladonger in the state of Rajasthan in India. According to the guideline issued by MoEF, an environmental	/PDD/ /TS/ /GLOSS/	OK	OK

[6] 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.
	impact for wind project is not required. *Justification of evidences:* The PDD, technical specification and the glossary of terms have been checked by the assessment team. *Conclusion:* Environmental impact for wind project is not required.			
B. Project Baseline, Additionality and Monitoring Plan				
B.1. Application of the Methodology				
B.1.1. Does the project apply an approved and applicable CDM methodology and a valid version thereof? (EB 55 Annex 1, § 65) *Describe the steps taken to validate this issue.*	*Description:* The project applied approved consolidated baseline and monitoring methodology entitled "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 12.3.0. Validation team found that the same version is applicable during the submission to the DoE. *Justification of evidences:* The UNFCCC website is checked and found the same to be correct.	/ACM0002/ /UNFCCC/ /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.
	Conclusion: Appropriate version of methodology has been used in this project activity.			
B.1.2. Is the applied CDM methodology identical with the version available on the UNFCCC website? (EB 55 Annex 1, §§ 65, 70) *Describe the steps taken to validate this issue.*	*Description:* The project has applied approved consolidated baseline and monitoring methodology entitled "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 12.3.0. Validation team found that the same version is applicable during the submission to the DoE. *Justification of evidences:* The UNFCCC website is checked and found the same to be correct. *Conclusion:* Appropriate version of methodology has been used in this project activity.	/ACM0002/ /UNFCCC/ /PDD/	OK	OK
B.1.3. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled? (EB 55 Annex 1, §§ 66(a)–(b), 68, 71, 76) *Describe for <u>each</u> applicability criterion listed in the selected approved methodology the steps taken to assess the information contained in the PDD.*	*Description:* The applicability criteria are assessed as below: <u>Criteria:</u> *This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).* <u>DOE assessment</u>: During the site visit and subsequent interview with the client it was found that the project activity involves installation of new wind power units at Kaladonger,	/ACM0002/ /IM01/ /TS/	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.
	Rajasthan. Therefore, the project activity satisfies this applicability criterion. *Criteria: The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;* DOE assessment: During the site visit and subsequent interview with the client it was found that the project activity involves installation of new wind power units at Kaladonger, Rajasthan. Therefore, this criteria is not applicable to this project activity. *Criteria: In the case of capacity additions, retrofits or replacements (except for capacity addition projects for which the electricity generation of the existing power plant(s) or unit(s) is not affected): the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity addition or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;* DOE assessment: During the site visit and subsequent			

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	interview with the client it was found that there is no capacity addition, retrofit or replacement in the project activity. Therefore, this condition is not applicable. *Criteria: In case of hydro power plants:* • *The project activity is implemented in an existing reservoir, with no change in the volume of reservoir, or* • *The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m2 after the implementation of the project activity; or* • *The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m2 after the implementation of the project activity.* DOE assessment: During the site visit and subsequent interview with the client it was found that the project activity involves installation of new wind power units at Kaladonger, Rajasthan. Therefore, this criteria is not applicable to this project activity. *Criteria: In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m2 all the following*			

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	conditions must apply: • *The power density calculated for the entire project activity using equation 5 is greater than 4 W/m2;* • *All reservoirs and hydro power plants are located at the same river and were designed together to function as an integrated project that collectively constitutes the generation capacity of the combined power plant;* • *The water flow between the multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity;* • *The total installed capacity of the power units, which are driven using water from the reservoirs with a power density lower than 4 W/m2, is lower than 15 MW;* • *The total installed capacity of the power units, which are driven using water from reservoirs with a power density lower than 4 W/m2, is less than 10% of the total installed capacity of the project activity from multiple reservoirs.* DOE assessment: During the site visit and subsequent interview with the client it was found that the project activity involves installation of new wind power units at Kaladonger, Rajasthan. Therefore, these criteria are not applicable to this project activity. *Justification of evidences:* The methodology ACM0002 was checked by the assessment team and found that all the appropriate applicability criteria are fulfilled thereof.			

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	Conclusion: All the applicability criteria in the methodology are mentioned appropriately in the PDD.			
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)	*Description:* All the applicability criteria are meeting for the project activity. The request for clarification or revision or deviation is not required for the project activity. *Justification of evidences:* ACM0002 was checked by the assessment team and found the same to be correct. *Conclusion:* All the applicability criteria in the methodology are mentioned appropriately in the PDD.	/ACM0002/ /IM01/	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) *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.*	*Description:* All the other requirement of the methodology is addressed in the web hosted PDD. *Justification of evidences:* The methodology ACM0002 is checked by the assessment team and found that the every other stipulation or requirement mentioned in all sections of the methodology is addressed in the PDD. *Conclusion:* All the requirement of the stipulated methodology	/ACM0002/ /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.
	is mentioned in the PDD.			
B.2. Project Boundaries *Project Boundaries are the limits and borders defining the GHG emission reduction project*				
B.2.1. Are the project's spatial boundaries (geographical) clearly defined? (EB 55 Annex 1, §§ 67(a), 78–80) *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.*	*Description:* The state of Maharashtra is covered under NEWNE regional grid. As the project activity is supplying the generated electricity to the NEWNE grid, therefore NEWNE grid has been chosen as electricity distribution system for the project in case of the baseline calculations. The unique identification of the project activity for all the WTGs is clearly defined in the PDD. *Justification of evidences:* During the site visit and subsequent interview with the client it was found that project boundary consists of the WTGs involved in the project activity are connected to NEWNE regional grid. *Conclusion:* The project boundary is determined correctly and assessed to be correct by the validation team during the site visit.	/IM01/ /ACM0002/	OK	OK
B.2.2. Are all sources and GHGs included in the project boundary as required in the applied	*Description:* All the GHG and sources are included in the PDD. The main source of emissions in the baseline is CO_2.	/ACM000	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.
methodology? (EB 55 Annex 1, §§ 67(a), 78–80) *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.*	*Justification of evidences:* The methodology ACM0002 was checked by the assessment team and found that all sources and GHGs are included in the PDD. The same is also checked during the physical verification to site and subsequent interview with the client. *Conclusion:* The main source of emissions in the baseline is CO_2. There are no other sources and GHGs are involved in the project activity.	2/ /IM01/		
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? (EB 55 Annex 1, §§ 67(a), 78–80) *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.*	*Description:* All the GHG and sources are included in the PDD. The main source of emissions in the baseline is CO_2. *Justification of evidences:* The methodology ACM0002 was checked by the assessment team and found that all sources and GHGs are included in the PDD. The same is also checked during the physical verification to site and subsequent interview with the client. *Conclusion:* The main source of emissions in the baseline is CO_2. There are no other sources and GHGs are involved in the project activity.	/ACM0002/ /IM01/	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.
B.3. Baseline Identification *The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.*				
B.3.1. What possible baseline scenarios have been considered? (EB 55 Annex 1, §§ 67(b), 83) *Fill in all alternatives in table A-2.*	*Description:* The baseline scenario for the project activity has been identified according to ACM0002 (version 12.3.0) as follows: The project activity is the installation of a new grid-connected renewable power plant/unit, hence the baseline scenario is the electricity delivered to the grid by the project activity which would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". Further, this project activity is not the retrofit or replacement of existing grid-connected renewable power plant/unit(s) at the project site. *Justification of evidences:* During the site visit and subsequent interview with the client it was confirmed that chosen baseline is adequate for the project activity. *Conclusion:* PP has appropriately considered the baseline	/ACM0002/ /PDD/ /IM01/	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.
	scenario of this project.			
B.3.2. Is the list of alternatives complete? (EB 55 Annex 1, §§ 67(b), 83) *Describe how it was validated that all alternatives are plausible and no plausible alternative is excluded from the consideration*	☒ 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. ☐ The following alternative scenarios/options have been omitted. Corresponding CAR(s)/CL(s) has /have been issued	/ACM0002/ /PDD/ /IM01/	OK	OK
B.3.3. What has been identified as the baseline scenario? (EB 55 Annex 1, §§ 81–82, 86) *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.*	*Description:* The baseline scenario for the project activity has been identified according to ACM0002 (version 12.3.0) as follows: The project activity is the installation of a new grid-connected renewable power plant/unit, hence the baseline scenario is the electricity delivered to the grid by the project activity which would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". Further, this project activity is not the retrofit or replacement of existing grid-connected renewable power plant/unit(s) at the project site. *Justification of evidences:* During the site visit and subsequent interview with the client it was confirmed that	/ACM0002/ /PDD/ /IM01/	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.
	chosen baseline is adequate for the project activity. *Conclusion:* PP has appropriately considered the baseline scenario of this project.			
B.3.4. Has the baseline scenario been determined according to the methodology? (EB 55 Annex 1, §§ 82, 87(e)) *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.*	For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2. ☒ The determination has been carried out as per the procedure contained in the applied methodology. ☐ The following CARs / CLs have been identified with respect to the selection of the baseline scenario:	/ACM0002/ /PDD/ /IM01/	OK	OK
B.3.5. Has any plausible alternative scenario been excluded? (EB 55 Annex 1, § 83) *Describe how it is validated that no plausible alternative scenario has been excluded.*	For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2. ☒ No plausible baseline scenario has been excluded. ☐ The following plausible baseline scenarios have been excluded though no adequate justification has been provided for elimination. The following CARs / CLs have been issued:	/ACM0002/ /PDD/ /IM01/	OK	OK
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? (EB 55 Annex 1, §§ 84–86(a)–(c)) *Describe whether the choice of the identified baseline scenario is reasonable by validating the key assumptions,*	☒ 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. ☐ The following CARs / CLs have been issued because assumptions used in the baseline determination have been assessed to be not conservative	/ACM0002/ /PDD/ /IM01/	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.
calculations and rationales used in the PDD. Describe whether these are listed, relevant and conservatively interpreted in the PDD.				
B.3.7. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations? (EB 55 Annex 1, §§ 85, 87(d)) *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).*	*Description:* As per the UNFCCC 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. Moreover, as per Para 27 of EB55 the E+ and E- policies need not be taken into account. *Justification of evidences:* EB22 Annex 3 is checked by the assessment team and found that the E+ and E- policies are addressed in the PDD and all the relevant guidelines are taken into account. Moreover, EB55 was also taken into account for the same. *Conclusion:* Project baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations	/EB55/ /PDD/	OK	OK
B.3.8. Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced? (EB 55 Annex 1, § 87(a)–(c)) *Describe whether the documents and sources referred to in the PDD are correctly quoted and clearly referenced.*	*Description:* The baseline scenario determination is compatible with the available data and all the literature are clearly sourced in the PDD. *Justification of evidences:* The PDD is checked with the methodological requirement and the given links and literatures are correct.	/PDD/ /IM01/ /ACM0002/	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.
	Conclusion: The baseline scenario determination compatible with the available data and are all literature and sources clearly referenced in the PDD.			
B.3.9. Does the PDD contain a *verifiable* 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. (EB 55 Annex 1, § 86)	*Description:* The project activity is basically electricity production using wind turbine generators. In the absence of the project activity the electricity would have been imported from the state grid which is basically dominated by fossil fuel power plant. *Justification of evidences:* The current existing grid emission factor is publically available on the website of central electricity authority of India-CEA and it has been checked by the assessment team and found correct *Conclusion:* The CEA database is checked and found correct.	/CEA/ /PDD/	OK	OK
B.4. Additionality Determination *The assessment of additionality will be validated with focus on whether the project itself is not a likely baseline scenario.*				
B.4.1. Methodology				
B.4.1.1. Does the PDD describe how the project is additional and does the additionality justification follow the requirements of the	*Description:* The proposed project activity applied approved baseline and monitoring methodology ACM0002 version 12.3.0 which is	/PDD/ /TOOL/	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.
applied methodology and/or methodological tools? (EB 55 Annex 1, §§ 67(d), 94–95) *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.*	valid during the global stakeholder's consultation process. The additionality justification is provided in the PDD section B.5. The Investment Analysis has been chosen to demonstrate additionality of the project activity. *Justification of evidences:* The guidelines of the Investment Analysis and the financial spreadsheet are checked by the assessment team. *Conclusion:* The PDD demonstrates the additionality of project using benchmark analysis. The additionality justification conforms to Tool for the determination of additionality.	/IRR/		
B.4.2. Consideration of CDM before project start				
B.4.2.1. Is the project starting date reported in accordance with the CDM glossary of terms? (EB 55 Annex 1, § 99, 104(a)) *Assess why the chosen starting date can be considered as the earliest date at which either the implementation or construction or real action of a project has begun or will begin.* *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*	*Description:* The purchase order dated 29/07/2011 issued to M/s Suzlon Energy Ltd. is considered as the start date of the project activity. *Justification of evidences:* The following documents are checked by the assessment team and found the same to be correct: • Purchase order dated 29/07/2011 issued to M/s.	/PDD/ /PO/ /GLOSS/	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.
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. Appropriate evidence should be given.	Suzlon Energy Ltd. • Glossary of CDM terms version 06. *Conclusion:* The project start date is in conformity with Glossary of CDM terms.			
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? (EB 55 Annex 1, §§ 99–101) *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.*	*Description:* The decision for investing in wind power project with CDM consideration was taken on 22/07/2011. Further, the project proponent intimated the host country DNA and UNFCCC on prescribed form on 07/11/2011 which is within six months of starting the project activity for seeking CDM status of the project activity which is in compliance with EB 62 Annex 13. *Justification of evidences:* The official UNFCCC website and communication with PP and MoEF have been checked by the assessment team and found the same to be correct. *Conclusion:* The project meets the requirement of serious CDM consideration and thus acceptable to the assessment team.	/UNFCCC/ /IM01/	OK	OK
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? (EB 55 Annex 1, §§ 100, 102)	*Description:* Project start date is after 2nd August 2008. Hence, not applicable to this project. *Justification of evidences:* The site visit and the interview with the client have been carried out by the client.	/UNFCCC/ /IM01/	NA	NA

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.	*Conclusion:* NA			
B.4.2.4. How and when was the decision to proceed with the project taken? *Describe the steps taken to validate the starting date.*	*Description:* The decision to proceed with the project was taken by the Board of Directors of Caparo Energy Limited on 22nd July, 2011. Further, validation team observed that M/s Bindu Vayu Urja Private Limited is the project proponent of this project. Further, board resolution letter mentioned that directors of Caparo Energy (India) Limited took the decision for this project. Hence CL A2 has been raised. *Justification of evidences:* The Management decision and PDD were checked by the assessment team. *Conclusion:* The decision to proceed with the project taken by the Board of Directors of Caparo Energy Limited on 22nd July, 2011. However CL A2 has been raised.	/MD/ /PDD/	~~Pending closure of CL A2~~	OK
B.4.2.5. Is the project start date consistent with the available evidences? (EB 55 Annex 1, § 102) *Describe the evidence assessed regarding the prior consideration of the CDM (if necessary). Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.*	*Description:* The purchase order dated 29/07/2011 issued to M/s Suzlon Energy Ltd. is considered as the start date of the project activity. *Justification of evidences:* The date of purchase order of the WTG is taken as start date of the project activity which is in accordance of CDM Glossary of terms version 06.	/PO/ /GLOSS/	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.
	Conclusion: The start date of the project activity is consistent with the available evidences.			
B.4.2.6. Was the decision to proceed with the project taken by a person who has the authority to do so? (EB 55 Annex 1, § 102(a) *Describe the steps taken to validate this issue.*	*Description:* The decision with the project activity availing the CDM benefits was taken by the board of directors of Caparo Energy Limited. Further, validation team observed that M/s Bindu Vayu Urja Private Limited is the project proponent of this project. Further, board resolution letter mentioned that directors of Caparo Energy (India) Limited took the decision for this project. Hence, CL A2 has been raised *Justification of evidences:* The Management decision and PDD were checked by the assessment team. *Conclusion:* The decision to proceed with the project taken by the board of directors of Caparo Energy Limited; however CL A2 is pending.	/MD/ /PDD/	~~Pending closure of CL A2~~	OK
B.4.2.7. How was the CDM involved in the decision making process? (EB 55 Annex 1, § 102) *Describe why CDM was a decisive factor in the decision making process.*	*Description:* The decision with the project activity availing the CDM benefits was taken by the board of directors of Caparo Energy Limited. Further, validation team observed that M/s Bindu Vayu Urja Private Limited is the project proponent of this project. Further, board resolution letter mentioned that directors of Caparo Energy (India) Limited took the decision for this project. Hence, CL A2 has been raised	/MD/ /PDD/	~~Pending closure of CL 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.
	Justification of evidences: The review of Management decision and PDD were checked by the assessment team. *Conclusion:* The CDM was involved in the decision making process; nevertheless CL A2 is pending.			
B.4.2.8. Do the evidences provided doubtlessly prove that continuous and real actions were taken in order to secure the CDM status? (EB 55 Annex 1, § 102; EB 62 Annex 13 § 7)	*Description:* The Board of director has taken decision to go ahead with the project activity. CDM is considered while taking the management decision. The start date of the project activity is after 2nd August 2008. As per annex 13 EB 62, PP intimated the DNA and UNFCCC to secure CDM status. The intimation to UNFCCC and DNA was done within six months of the project start date. *Justification of evidences:* The guideline for the Demonstration and the Assessment of the prior consideration of the CDM has been checked by the assessment team. *Conclusion:* The evidences provided doubtlessly prove that continuous and real actions were taken in order to secure the CDM status.	/MD/ /UNFCCC/ /CON-DOE/	OK	OK
B.4.2.9. Is the gap of documented evidences to	*Description:* This is a Greenfield project activity. Hence, this	/PO/	NA	NA

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
secure the CDM status less than 3 years and are the evidences relevant for substantiating the action taken, credible, reliable and complete? (EB 62 Annex 13 § 8)	criterion is not applicable to this project activity. *Justification of evidences:* Purchase order for WTG has been checked. *Conclusion:* This criterion is not applicable to this project activity.			
B.4.2.10. Did implementation of the project ceased after its commencement and did implementation recommence after consideration of the CDM? (EB 62 Annex 5, § 7) *Describe the reasons for ceasing the project and explain why the incentive from CDM was necessary to recommence the implementation.*	*Description:* This is a Greenfield project activity. Hence, this criterion is not applicable to this project activity. *Justification of evidences:* Purchase order for WTG has been checked. *Conclusion:* This criterion is not applicable to this project activity.	/PO/	NA	NA
B.4.2.11. Can the CDM involvement in the decision assessed as serious? (EB 55 Annex 1, § 104(b)–(c)) *Describe whether or not the project would have been undertaken without the incentive of the CDM.*	*Description:* The CDM involvement in the decision making was serious. The CDM incentive was considered necessary by the Board of Directors to make the project financially viable. The decision to proceed with the project activity availing the CDM benefits was taken by the board of directors. *Justification of evidences:* The minutes of the board meeting has been checked by the assessment team	/MD/	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.
	Conclusion: Validation team checked the minutes of the board meeting and observed that the Board of Directors, after discussion had concluded that the wind mill project will be financially viable only after taking into due consideration the CER income.			
B.4.3. Identification of alternatives Step 1 (in case of SSC projects pl. skip steps 1 and 2 if appropriate)				
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? (EB 55 Annex 1, §§ 105–107) *Describe the steps taken to validate this issue on the basis of your local and sectoral knowledge.*	*Description:* The alternatives contain status quo situation, the project not undertaken as a CDM project. PDD demonstrated the alternatives according to the latest version of "Tool for the demonstration and assessment of additionality". Moreover, outcome of each of the steps are not mentioned in the PDD. Corrections are sought. Hence, CAR B1 has been raised during the validation process. *Justification of evidences:* The PDD and Tool for the demonstration and assessment of additionality was checked by the assessment team. *Conclusion:* The outcomes of each of the steps w.r.t. additionality tool are not mentioned in the PDD therefore CAR B1 has been raised.	/PDD/ /TOOL/	~~CAR B1~~	OK
B.4.3.2. Have all realistic alternatives been identified to the project?	*Description:* The alternative identified is as per the methodological requirement. Further, CAR B1 has been	/PDD/	~~Pending~~	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, §§ 105–107) *Describe whether the list of alternatives is credible and complete. Describe how it is validated that the alternatives are realistic.*	raised during the validation. *Justification of evidences:* The applied methodology and the PDD were checked by the assessment team. *Conclusion:* The list of alternatives has been provided in the PDD. However CAR B1 has been raised.	/ACM0002/	~~closure of CAR B1~~	
B.4.3.3. Do all identified alternatives comply with enforced legislations? (EB 55 Annex 1, §§ 106(c)) *Describe the steps taken to validate this issue. Refer to the legislations.*	*Description:* The identified alternative is as per the enforced legislation *Justification of evidences:* The PDD is checked and found correct by the assessment team. *Conclusion:* The alternative identified is correct.	/PDD/	OK	OK
B.4.4. Investment analysis Step 2 *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 additonal details of the the calculation parameters..*				
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? (EB 55 Annex 1, § 108)	*Description*: PDD demonstrated the attractiveness of the project using financial analysis. IRR is considered as the financial indicator that the project activity is not the most economically attractive alternative. Assessment team seeks clarification how the CDM revenues were considered essential to overcome the investment barrier, in particular	/PDD/ /IRR/ /ACM0002/	~~CL B2~~	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.
	that the benchmark represents a rate below which the investment could not be made. Hence, CL B2 has been raised. *Justification of evidences:* The IRR sheet, PDD and the applied methodology have been checked by the assessment team. *Conclusion*: The PDD provides 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. However CL B2 has been raised.			
B.4.4.2. Is an appropriate analysis method chosen for the project (simple cost analysis, investment comparison analysis or benchmark analysis)? (EB 55 Annex 1, § 108; EB 39 Annex 10) *Describe why the selected analysis method is appropriate under consideration of potential revenues and costs, potential project alternatives and potential available benchmark values.*	*Description:* The project is earning revenue by selling electricity from the project activity. Thus simple cost analysis is not appropriate for the project activity. The baseline selected is outside the control of the project participant. Thus investment analysis is not appropriate for the project activity. Hence, benchmark analysis has been considered. The project is funded 70% by debt. Further, Equity IRR has been selected as financial indicator. Moreover, when the equity IRR is chosen as financial indicator, explain the reasons for giving both project and equity IRR calculations in the worksheet. Hence, CL B3 has been raised. *Justification of evidences:* The worksheet and the PDD have been checked by the assessment team. *Conclusion:* Investment comparison analysis is chosen for the project activity. However CL B3 has been raised.	/PDD/ /IRR/	~~CL B3~~	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.4.4.3. Is a clear, viewable and unprotected Excel spreadsheet available for the investment calculation? (EB 55 Annex 1, § 110; EB 51, Annex 58, §8) *Describe the steps taken to validate this issue.*	☒ Yes, a clear, viewable and unprotected Excel spreadsheet is available. ☐ No, a respective Excel spreadsheet needs to be made available for investment calculation. In this context the following additional findings have been identified: N/A	/PDD/ /IRR/	OK	OK
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 62 Annex 5, § 3 – 4) *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.*	*Description:* The technical lifetime is chosen as 20 years for the investment analysis. Further, the justification for the same has not been demonstrated in the PDD. Hence, CAR B4 has been raised. *Justification of evidences:* The PDD has been checked by the team. Further Annex 15 EB 50 and Equipment specification have also been checked by the team. *Conclusion:* PDD does not explain the conformity of technical life of the project to Annex 15, EB 50. Hence the CAR B4 has been raised.	/TOOL/ /PDD/ /TS/	~~CAR B4~~	OK
B.4.4.5. Is the (remaining) technical lifetime of existing or project equipment defined in accordance with the guidance of the *Tool to determine the remaining lifetime of equipment*? (EB 50 Annex 15)	*Description:* NA to the project activity as this is a Greenfield project. *Justification of evidences:* Purchase order has been checked by the team.	/PO/	NA	NA

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	Conclusion: NA for the project activity			
B.4.4.6. Is the fair value calculated in accordance with local accounting regulations (where available) or international best practice? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 4) *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.*	*Description:* The Salvage value has been reckoned as cash inflow in the first and last years of operation, resulting in double counting. Moreover, reckoning salvage value in the first year is incorrect. Hence, CAR B5 has been raised. *Justification of evidences:* The IRR sheet has been checked by the assessment team. *Conclusion:* The fair value has not been calculated correctly thus CAR B5 has been raised.	/IRR/	~~CAR B5~~	OK
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? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 4)	*Description:* The book value as well as expectation of the potential profit and loss is included in the fair value calculation. However, Salvage value has been reckoned as cash inflow in the first and last years of operation, resulting in double counting. Moreover, reckoning salvage value in the first year is incorrect. Hence, pending CAR B5 has been raised. *Justification of evidences:* The IRR sheet has been checked by the assessment team *Conclusion:* The fair value has not been calculated correctly thus CAR B5 has been raised	/IRR/	~~Pending closure of CAR B5~~	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.4.4.8. Are depreciation and other non-cash related items only considered in the tax calculation and not as cash outflow? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 5)	*Description:* Depreciation is considered in the calculation. However, the COD of the project is June 2012; provision of full year book depreciation in the first year is not in conformity with accepted accounting principle. Further, when the COD of the project is stated to be June 2012, the provision of IT depreciation is not in conformity with IT Act. Hence, CAR B6 has been raised during the validation process. --- Further, additional depreciation has not been reckoned in financial indicator calculation. Hence, CL B7 has been raised to clarify whether the project is entitled to additional depreciation or not. *Justification of evidences:* The IRR sheet has been checked by the assessment team. *Conclusion:* CAR B6 and CL B7 have been raised regarding this context.	/IRR/	~~CAR B6 and CL B7~~	OK
B.4.4.9. 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 62 Annex 5, § 6) *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*	*Description:* The input values used in the IRR computation is applicable at the time of investment decision. Further, following inconsistencies were observed during the assessment process. The source and the name of the publication from which the inflation has been sourced (to convert the real rate of return to nominal rate) have not been given. Moreover, the consideration of inflation rate does not appropriate. Hence, CAR B8 has been raised	/IRR/ /PDD/ /OFFER/ /PO/ /MD/ /TOOL/	~~CAR 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.
FSR and PDD.	--- The Assumptions sheet does not provide the source /basis for each input parameter. The Assumptions worksheet is mixes the unit and source of input parameter. Hence CAR B9 has been raised. --- Further, Weekly Statistical Supplement dated 28/05/2010 has been cited as the basis for interest rate. This does not conform to either guidance 6 or 11 of Annex 5, EB 62. Moreover, other terms of loan, viz., initial grace period, repayment period, number of instalments, instalment amount etc. are not given in the Assumption sheet or in the PDD. Hence CAR B10 has been raised. --- Tariff has been sourced from RERC order dated 14/12/2011, which does not conform to Guidance 6 of Annex 5, EB 62. Moreover, when RERC has issued an order on 3/06/2011, the reason for choosing 14/12/2011 order is not clear. Hence CAR B11 has been raised. --- Further, PP considered the exchange rate of March 2012 (for CER conversion) when the investment decision was taken in July 2011. Hence, CL B12 has been raised. --- Further, the COD of the project is not given either in the PDD		~~CAR B9~~ ~~CAR B10~~ ~~CAR B11~~ ~~CL B12~~	

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	or in the Assumption sheet. Moreover, from the Term Loan sheet it emerges that the COD is June 2012. In the above background, reckoning generation from 01/04/2012 is contradictory. Since the COD of the project is June 2012, the interest calculation given in the Term Loan sheet for the period August 2011 to May 2012 is redundant. Number of days in a year has been given uniformly at 365 (including leap year), in the Operations worksheet, which is not correct. Since the COD of the project is June 2012, reckoning the entire investment in 2011-12 is not appropriate. Hence, CAR B13 has been raised. --- Further, O&M cost has been reckoned at Rs. 22.30 lakhs/WTG which includes basic cost and ST. The split up may be furnished. Considering the fact that the COD of the project is June 2012 and free O&M period of 3 years, reckoning O&M cost for full year in 2015-16 is incorrect. Hence, CAR B14 has been raised. --- Further, land cost has been considered at 1.5% of total cost. Clarify the basis for the same. Hence, CL B15 has been raised.		~~CAR B13~~ ~~CAR B14~~ ~~CL B15~~	

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	--- Tax calculations do not reckon MAT set off. Clarify whether the project is entitled to MAT set off or not and if not the reasons therefor. Hence, CL B16 has been raised. --- Further, Assessment team seeks clarification whether CER income is not subject to taxation. Hence, CL B17 has been raised. *Justification of evidences:* The worksheet and the PDD have been checked by the assessment team. Moreover the offer letter, the purchase order and management decision letter have been checked by the team. *Conclusion:* The input values used in the investment analysis are not valid and applicable at the time of the investment decision; therefore regarding this context CARs and CLs have been raised.		~~CL B16~~ ~~CL B17~~	
B.4.4.10. 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)	*Description:* During validation, assessment team seeks the justification of the conformity of PLF to Annex 11, EB 48 has not been explained anywhere in the PDD. It is observed that while in sec. B.6.3., the PLF is considered at 23.50%, in the worksheet, it is reckoned at 20.10%, which is neither appropriate nor acceptable. PP is advised to furnish the PLF	/IRR/ /PLF/	~~CAR B18~~	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.
	submitted to Bank. Considering this issue CAR B18 was raised during the validation process. --- Further, during the assessment of the PLF certificate, validation team observed that, Suzlon has conducted the PLF assessment for Kaladonger site for the capacity of 178.5 9 MW on 14/01/2011. The summary of this report mentioned that expected generation from the wind firm would be 374.7 GWh (p 11, para 8) and expected PLF of the site is 23.9. Moreover, in the financial estimation and ER calculation 20.10 % PLF has been considered. Hence, clarification is required to demonstrate the appropriateness of the considered PLF for this project. Hence CL B19 has been raised. *Justification of evidences:* The worksheet and PLF assessment report have been checked by the assessment team. *Conclusion:* The plant load factor (PLF) has not been chosen in a conservative manner; therefore CAR B18 and CL B19 have been raised.		~~CL B19~~	
B.4.4.11. In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of project IRR?	☐ N/A ☒ Yes, the costs of financing expenditures have been included. ☐ No, this requirement is not met.	/IRR/ /PDD/	~~Pending closure of CL B3~~	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 62 Annex 5, § 9)	In this context the following additional findings have been identified: Further, the PP has considered equity IRR to demonstrate the additionality of this project. Moreover, when the project is funded 70% by debt, assessment team seeks a clarifcation for the appropriateness of choosing equity IRR as financial indicator. Hence, CL B3 has been raised.			
B.4.4.12. 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. (EB 55 Annex 1, § 109; EB 62 Annex 5, § 11) *If this is not the case, ensure that taxation is excluded from the investment analysis.* *As per the guidance it is recommended to select a pre tax benchmark in order to describe the steps taken in assessing this requirment.*	☐ N/A ☒ Yes, the interest has been taken into account. ☐ No, this requirement is not met. In this context the following additional findings have been identified: Return on Equity is chosen as the benchmark for the project activity. Summation of expected return on equity and inflation rate prevailing is considered as the benchmark for the project activity. Further, during assessment, validation team found that assumptions used to calculate the Return on Equity is not correct. Hence assessment team, requested for the source and and the name of the publication from which the inflation has been sourced. Hence, CAR B8 has been raised.	/IRR/ /PDD/ /TOOL/	~~Pending closure of CAR B8~~	OK
B.4.4.13. 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	☐ N/A ☐ Yes, in- and outflows have been considered correctly. ☒ No, this requirement is not met.	/IRR/ /PDD/ /TOOL/	~~Pending closure of~~	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.
cash outflow? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 10)	In this context the following additional findings have been identified: The PP has considered equity IRR to demonstrate the additionality of this project. Moreover, when the project is funded 70% by debt, assessment team seeks a clarifcation for the appropriateness of choosing equity IRR as financial indicator. Hence, pending CL B3 has been raised.		~~CL B3~~	
B.4.4.14. 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 62 Annex 5, §§12 – 18) *In case risk premiums are applied precisely describe its suitability to reflect the risks associated with the project activity, considering the project type and market situation.*	*Description:* Return on Equity is chosen as the benchmark for the project activity. Summation of expected return on equity and inflation rate prevailing is considered as the benchmark for the project activity. Moreover, when the project is funded 70% by debt, assessment team seeks a clarifcation for the appropriateness of choosing equity IRR as financial indicator. Hence, CL B2 has been raised. *Justification of evidences:* PDD and the IRR sheet have been checked by the assessment team. Also Guideline on assessment of Investment Analysis has been checked for the same. *Conclusion:* CL B3 is pending for assessment of appropriateness of the benchmark chosen.	/IRR/ /PDD/ /TOOL/	~~Pending closure of CL B3~~	OK
B.4.4.15. Is the benchmark value suitable for the project activity and is it reasonable to assume that no investment would be made	*Description:* Return on Equity is chosen as the benchmark for the project activity. Moreover, when the project is funded 70% by debt, assessment team seeks a clarification for the	/IRR/ /PDD/ /TOOL/	~~Pending closur~~	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.
at a rate of a lower return than the benchmark? (EB 55 Annex 1, § 109; EB 62 Annex 5, §§13 – 18) *Describe whether it is reasonable to assume that a lower rate of return would consequently result in the baseline scenario.*	appropriateness of choosing equity IRR as financial indicator. Further, during assessment, validation team found that assumptions used to calculate the Return on Equity is not correct. Hence assessment team, requested for the source and the name of the publication from which the inflation has been sourced. Hence, CL B3 and CAR B8 have been raised. *Justification of evidences:* PDD and the IRR sheet have been checked by the assessment team. Also Guideline on assessment of Investment Analysis has been checked for the same. *Conclusion:* The benchmark value is not suitable for the project activity and it reasonable to assume that no investment would be made at a rate of a lower return than the benchmark; however pending CL B3 and CAR B8.		~~e of CL B3 and CAR B8~~	
B.4.4.16. Is it ensured that the project cannot be developed by other developers than the PP? (EB 55 Annex 1 § 109; EB 62 Annex 5, §§ 13 – 14) *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.*	*Description:* The project is a wind power project. No legislation in the host country will prevent other developers to invest in the project. *Justification of evidences:* The legislation has been checked by the assessment team. *Conclusion:* The project can be developed by other developers than the PP.	/IM01/	OK	OK
B.4.4.17. Was the benchmark consistently used in the past for similar projects with similar risks?	*Description:* Internal Company benchmark has not been opted as there can be more than one potential developer for the current project activity.	/IRR/ /PDD/	~~Pendi ng closur~~	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, § 112(c))	*Justification of evidences:* PDD and the IRR sheet have been checked by the assessment team. Also Guideline on assessment of Investment Analysis has been checked for the same. *Conclusion:* NA	/TOOL/	~~e of CL B3~~	
B.4.4.18. 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 62 Annex 5, § 20-21) *Describe relevance of parameters used in the sensitivity analysis as well as their likeliness 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.*	*Description:* PDD and the IRR sheet contain the sensitivity analysis. However, it does not contain the results of sensitivity analysis. Hence CL B20 has been raised. *Justification of evidences:* The IRR sheet is checked by the assessment team and found correct. However, justification is reserved till CAR is closed. *Conclusion:* The PDD and the IRR sheet do not contain the results of sensitivity analysis hence CL B20 has been raised.	/IRR/ /PDD/	~~CL B20~~	OK
B.4.4.19. Were only variables that constitute more than 20% of either total project costs or total project revenues subjected to reasonable variation? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 20)	*Description:* Variables constitute more than 20% of the project cost is considered for sensitivity analysis. *Justification of evidences:* Worksheet is checked by the assessment team and the guideline of investment analysis.	/IRR/	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.
	Conclusion: Variables constitute more than 20% of the project cost is considered for sensitivity analysis.			
B.4.4.20. 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 62 Annex 5, § 20) *Describe whether those parameters are considered in the sensitivity analysis?*	*Description:* Parameters constitute less than 20% is not considered for the analysis. This does not affect the additionality. *Justification of evidences:* Worksheet is checked by the assessment team and the guideline of investment analysis *Conclusion:* The parameters constitute less than 20% is not considered for the analysis.	/IRR/	OK	OK
B.4.4.21. 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 62 Annex 5, § 21) *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.*	*Description:* Sensitivity analysis has been conducted by subjecting all the parameters to ±10% variation. Further, PDD does not explain how the chosen variation is considered reasonable in the project context. Similarly, sensitivity analysis section does not explain at what percent variation the financial indicator will equal the benchmark and the probability of its occurrence. Hence, CAR B21 has been raised. *Justification of evidences:* Worksheet is checked by the assessment team and the guideline of investment analysis *Conclusion:* PDD does not explain how the chosen variation	/IRR/ /TOOL/	~~CAR B21~~	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.
	is considered reasonable in the project context. Similarly, sensitivity analysis section does not explain at what percent variation the financial indicator will equal the benchmark and the probability of its occurrence; hence CAR B21 has been raised.			
B.4.5. **Barrier analysis Step 3 or SSC additionality assessment**				
B.4.5.1. Are there any barriers given which have a clear and direct impact on the financial returns of the project? (EB 55 Annex 1, §§ 115, 134, 137) *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 62 Annex 5.*	*Description:* NA *Justification of evidences:* NA *Conclusion:* NA	NA	NA	NA
B.4.5.2. Are the barriers described risk related (e.g. technology failure, other performance related risks)? (EB 55 Annex 1, §§ 116, 134, 137) *Are there other barriers or barriers due to prevailing practice existent which would have led to higher emissions?*	*Description:* NA *Justification of evidences:* NA *Conclusion:* NA	NA	NA	NA
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	*Description:* NA *Justification of evidences:* NA	NA	NA	NA

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
of the CDM? (EB 55 Annex 1, §§ 116, 137, EB 50 Annex 13, § 9)	*Conclusion:* NA			
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))	*Description:* NA *Justification of evidences:* NA *Conclusion:* NA	NA	NA	NA
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))	*Description:* NA *Justification of evidences:* NA *Conclusion:* NA	NA	NA	NA
B.4.5.6. Does the review of relevant background information on the nature of the company(ies) and entitiy(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)	*Description:* NA *Justification of evidences:* NA *Conclusion:* NA	NA	NA	NA
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	*Description:* NA *Justification of evidences:* NA	NA	NA	NA

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)	*Conclusion:* NA			
B.4.5.8. Would provision of additional financial means lead to the mitigation of the barrier(s) demonstrated? (EB 50 Annex 13, § 7) *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. .*	*Description:* NA *Justification of evidences:* NA *Conclusion:* NA	NA	NA	NA
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)) *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.*	*Description:* Validation team assessed the PDD and found that common practice analysis does not conform to step 4 of Additionality Tool. Presentation of select projects and concluding that there are no similar activities is not acceptable. The validation will require the entire population. Hence, CAR B22 has been raised. *Justification of evidences:* The PDD and the Guidelines for common practice analysis and the regulatory framework of the region has been checked by the assessment team *Conclusion:* Common practice analysis does not conform to step 4 of Additionality Tool and therefore CAR B22 has been raised in this context.	/PDD/ /TOOL/	~~CAR B22~~	OK
B.4.6.2. To what extent similar projects have been	*Description:* Validation team assessed the PDD and found	/PDD/	~~CAR~~	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.
undertaken in the relevant region? (EB 55 Annex 1, § 120(b))	that common practice analysis does not conform to step 4 of Additionality Tool. Presentation of select projects and concluding that there are no similar activities is not acceptable. The validation will require the entire population.Hence, CAR B22 has been raised. *Justification of evidences:* The PDD and the Guidelines for common practice analysis and the regulatory framework of the region has been checked by the assessment team *Conclusion:* Common practice analysis does not conform to step 4 of Additionality Tool and therefore CAR B22 is pending in this context.		~~B22~~	
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 kinds of differences are observed? (EB 55 Annex 1, § 120(c))	*Description:* Validation team assessed the PDD and found that common practice analysis does not conform to step 4 of Additionality Tool. Presentation of select projects and concluding that there are no similar activities is not acceptable. The validation will require the entire population. Hence CAR B22 has been raised. *Justification of evidences:* The PDD and the Guidelines for common practice analysis and the regulatory framework of the region has been checked by the assessment team *Conclusion:* Common practice analysis does not conform to step 4 of Additionality Tool and therefore CAR B22 is pending in this context.	/PDD/ /TOOL/	~~Pending closure of CAR B22~~	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.5. Ex-Ante Calculation of GHG Emission Reductions *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.*				
B.5.1. Are the equations applied correctly according to the applied approved methodology? (EB 55 Annex 1, §§ 67(c), 89–90, 92) *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.*	☒ The equations applied for calculation are correctly applied according to the approved methodology. ☐ The following mistakes have been identified in this context:	/PDD/	OK	OK
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)? (EB 55 Annex 1, §§ 90–91) *Assess the correct selection and application of methodological choices. Describe whether proper*	*Description:* The methodology do not allows for other methodological choices. *Justification of evidences:* The equations and the calculations has been checked by the assessment team and found in compliance with the approved methodology.	/ACM0002/ /PDD/ /IRR/	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.
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.	*Conclusion:* The methodology do not allows for other methodological choices.			
B.5.3. Have conservative assumptions been used when calculating the project emissions? (EB 55 Annex 1, §§ 90–91) *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.*	*Description:* The project activity uses wind energy to generate electricity therefore there is no project emission has been considered. Further, in the emission factor estimation, only electricity generation has been considered to estimate the weighted average of operating margin emission factor. This procedure is not in line with the footnote no 5 of "Tool to calculate the emission factor for an electricity system" version 2.2.1. Hence, CAR B23 has been raised. *Justification of evidences:* The assessment team has been checked the methodology and the PDD. *Conclusion:* The procedure to calculate emission factor is not in line with the footnote no 5 of "Tool to calculate the emission factor for an electricity system" version 2.2.1. Thus CAR B23 has been raised.	/ACM0002/ /PDD/	~~CAR B23~~	OK
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	*Description:* The Implementation of the project activity will not lead to GHG emissions within the project boundary which contribute more than 1% of the overall expected average emission reductions, which are not addressed by the methodology	/IM01/ /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.
addressed by the methodology? (EB 55 Annex 1, § 77)	*Justification of evidences:* During the site visit and the interview with the client it was confirmed that there are no GHG emissions for this project activity. *Conclusion:* The Implementation of the project activity will not lead to GHG emissions within the project boundary which contribute more than 1% of the overall expected average emission reductions, which are not addressed by the methodology.			
B.5.4.1. Has a plant load factor (PLF) been defined ex-ante and considered for determination of baseline emissions? (EB 48 Annex 11, §§ 1, 3–4) *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.*	*Description:* The PLF of the project is as per the guidance from EB vide Annex 11 EB48. The PLF have been defined by third party assessment. Further, CAR B18 has been raised by the assessment team. *Justification of evidences:* The assessment team has checked the PLF guidelines EB 48 Annex 11. *Conclusion:* CAR B18 is pending in this regards.	/PLF/ /PDD/	~~Pending closure of CAR B18~~	OK
B.5.5. Are all data sources and assumptions appropriate and parameters which remain 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)	*Description:* All the data and parameters which will remain fixed throughout the crediting period are correct and clearly referenced. All the data have been taken from the CEA database version 6. *Justification of evidences:* Same has been checked by the	/PDD/ /CEA/	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.
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.	validation team with CEA official website. *Conclusion:* All the data and parameters which will remain fixed through the crediting period are correct and clearly referenced.			
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) *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*	☒ All "Values of data to be applied for the purpose of calculating expected emissions reductions" are considered to be reasonable, applicable and conservative. ☐ The following mistakes have been identified in this context:	/PDD/ /ACM0002/	OK	OK
B.5.7. Are the emission reductions real, measurable and give long-term benefits related to the mitigation of climate change. *Describe the steps taken to validate this issue.*	*Description:* The emission reduction by the project activity is based on net electricity supplied to the grid by wind power project and the grid emission factor of grid. Thus the emission reductions are real, measurable and give long-term benefits related to the mitigation of climate change. *Justification of evidences:* The interview with the client and the site visit has been carried out as well as the PDD and the ER sheet has been checked by the assessment team. *Conclusion:* The emission reductions are real, measurable and will give long term benefits related to the mitigation of climate change.	/ER/ /PDD/ /IM01/	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.
B.6. Monitoring of Emission Reductions *It is assessed whether the monitoring plan is appropriate for the project activity and in line with the applied methodology.*				
B.6.1. Are all monitoring parameters required by the applied methodology contained in the monitoring plan? (EB 55 Annex 1, §§ 67(e), 121, 123(a), 124) *Assess whether all applicable parameters listed in the methodology are included in the monitoring plan.* *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.* *In case of different approaches can be chosen acc. to the methodology assess whether the selection of parameters is justified and correct.*	*Description:* All the monitoring parameters required by the methodology have been described in the monitoring plan. However, net electricity measurement methods and procedures mentioned in the webhosted PDD is not in line with project scenario. During site visit, validation team observed that WTG under this project activity is connected to common feeder where other WTG (not under this project activity) are also connected. Appropriate corrective actions are required. Hence, CAR B24 was raised during the validation process. *Justification of evidences:* The interview with the client and the site visit has been carried out as well as the PDD; further PDD and the methodology have been checked by the assessment team. *Conclusion:* CAR B24 was raised as the net electricity measurement methods and procedures mentioned in the webhosted PDD is not in line with project scenario	/ACM002/ /PDD/ /IM01/	~~CAR B24~~	OK
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	*Description:* All the monitoring parameters required by the methodology	/ACM002 /	~~Pending closur~~	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.
applied methodology? (EB 55 Annex 1, § 123(a)–(b), 124) *Assess whether the provided information for all parameters w.r.t.* a) *Label (name of the data / parameter)* b) *data unit* c) *description* d) *source of data* e) *measurement equipment / method / procedure* f) *monitoring frequency* g) *QA/QC procedures* *are appropriately described and in compliance with the requirements of the methodology..*	have been incorporated in the PDD and in accordance with the applied methodology requirement. However, CAR B24 has been raised during the validation process. *Justification of evidences:* The interview with the client and the site visit has been carried out as well as the PDD; further PDD and the methodology have been checked by the assessment team. *Conclusion:* The means of monitoring of all parameters contained in the monitoring plan are not feasible as closure of CAR B24 is pending.	/PDD/ /IM01/	~~e of CAR B24~~	
B.6.3. Are all parameters presented as per international standards? a) *Format: Standard format (e.g. 1,000 representing one thousand and 1.0 representing one).* b) *Units: Values shall be directly given in SI units – or additionally to original units transferred to SI.* c) *Short scale naming system: (Only) million = 10^6 and billion 10^9 shall be used.* *Please refer to the International System of Units (SI) as published within Guidance 11/08.*	☒ Standard formats have been used ☒ SI units were used – or added ☐ The short scale naming is correct In this context the following additional findings have been identified: N/A	/ER/ /PDD/	OK	OK
B.6.4. Have all means of implementing the		/ACM002	~~Pendi~~	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.
monitoring plan, e.g. equations necessary for ex-post emission reduction calculation, been described clearly and in line with the methodology? (EB 55 Annex 1, §§ 123(b), 124) *Check whether all necessary equations have been provided in the PDD. Pl. consider that ex-post and ex-ante calculations might be different.* *Please consider that additional equations might be necessary to calculate auxiliary parameters.*	*Description:* All the monitoring parameters required by the methodology have been described in the monitoring plan. However, net electricity measurement methods and procedures mentioned in the webhosted PDD is not in line with project scenario. During site visit, validation team observed that WTG under this project activity is connected to common feeder where other WTG (not under this project activity) are also connected. Appropriate corrective actions are required. Hence, CAR B24 is pending during the validation process. *Justification of evidences:* The interview with the client and the site visit has been carried out as well as the PDD; further PDD and the methodology have been checked by the assessment team. *Conclusion:* All means of implementing the monitoring plan has not been described clearly as the closure of the CAR B24 is pending.	/ /PDD/ /IM01/	~~ng closure of CAR B24~~	
B.6.5. Is it likely that the monitoring arrangements described in the PDD can properly be implemented in the context of the project activity? (EB 55 Annex 1, § 124(c)) *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.*	*Description:* All the monitoring parameters required by the methodology have been incorporated in the PDD and in accordance with the applied methodology requirement. However, CAR B24 is pending during the validation process. *Justification of evidences:* The interview with the client and the site visit has been carried out as well as the PDD; further PDD and the methodology have been checked by the	/ACM002/ /PDD/ /IM01/	~~Pending closure of CAR B24~~	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.
	assessment team. *Conclusion:* The monitoring arrangements described in the PDD cannot be properly implemented in the context of the project activity as the closure of the CAR B24 is pending.			
B.6.6. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activity can be reported ex-post and verified? (EB 55 Annex 1, § 124(b)) *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.*	*Description:* QA/QC procedures are appropriate for all meter being used in the project activity. Suzlon Energy Limited is providing the O&M services for this project activity. The QA/QC procedure will be as per the ISO standards as confirmed by the project participant. Further, CAR B24 is pending raised during the validation process. *Justification of evidences:* PDD has been checked as well as the interviews with the client and the site visit also has been carried out by the team. *Conclusion:* The QA/QC procedures are not appropriate to ensure that the emission reductions achieved from the project activity can be reported ex-post and verified as the closure of the CAR B24 is pending.	/PDD/ /IM01/	~~Pending closure of CAR B24~~	OK
B.6.7. Are procedures identified for data management? (EB 55 Annex 1, § 124(b)) *Check whether appropriate provisions are considered for data management including responsibilities, what records to keep, storage area of records and how to process*	*Description:* The data management system is mentioned in section B.7 of the PDD. Procedure, role and responsibility of the person for the project activity along with the data storage and archiving techniques employed for the project activity is appropriate. Further, CAR B24 is pending during the validation process.	/PDD/ /IM01/ /ACM0002/	~~Pending closure of CAR B24~~	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.
performance documentation *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.*	*Justification of evidences:* During the site visit and subsequent interview with the client it can be concluded that the procedures are identified for data management. Further PDD and the methodology have been checked. *Conclusion:* The procedures are not identified for data management, thus the CAR B24 has been raised.			
C. Duration of the Project/ Crediting Period *It is assessed whether the temporary boundaries of the project are clearly defined.*				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
C.1. Is the project's operational lifetime clearly defined and evidenced? *Check whether the project lifetime is correctly defined. Consider the guidance on the assessment of investment analysis (annex to the additionality tool).* *Check in case of phased implementation this has been reflected throughout the whole PDD incl. the financial assessment, if applicable.*	*Description:* The operational lifetime of the project activity is 20 years. *Justification of evidences:* The lifetime assessment certificate is checked by the validation team and found that the operational life time of the project activity is 20 year. *Conclusion:* The operational life time of the project activity is 20 year.	/LIFETIME/ /PDD/	OK	OK
C.2. Is the start of the crediting period clearly defined and reasonable? *Check whether the envisaged starting date of the crediting period is realistic, taking into consideration the times needed for validation and registration.*	*Description:* 01/09/2012 was selected as the start date of the crediting period of the project activity. However the start date of the crediting period needs to be postponed looking at the progress of the validation. Thus CAR C1 has been raised. *Justification of evidences:* PDD has been checked for the start date of the crediting period and found that the date is not realistic. *Conclusion:* Start of the crediting period needs to be revised. CAR C1 has been raised.	/PDD/	~~CAR C1~~	OK
D. Environmental Impacts				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the DOE.				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA)? (EB 55 Annex 1, §§ 131–133) *Check the host party regulations, regarding EIA.*	*Description:* The project activity does not fall under the purview of the Environmental Impact Assessment (EIA) notification of the Ministry of Environment and Forest, Government of India Hence, EIA is not required by the host party *Justification of evidences*: Evidence: http://envfor.nic.in/divisions/iass/notif/eia.htm is being cross checked by the assessment team and found correct. *Conclusion:* EIA is not required for this project activity.	/MoEF/	OK	OK
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? (EB 55 Annex 1, §§ 131–133) *Check the EIA and its approval, if applicable.*	*Description:* The project activity does not fall under the purview of the Environmental Impact Assessment (EIA) notification of the Ministry of Environment and Forest, Government of India Hence, EIA is not required by the host party *Justification of evidences:* Evidence: http://envfor.nic.in/divisions/iass/notif/eia.htm is being cross checked by the assessment team and found correct *Conclusion:* EIA is not required for this project activity	/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.
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? (EB 55 Annex 1, §§ 130–132) *Check the PDD (section D). Check whether the project will create any adverse environmental effects.* *Check the relevant national environmental legislation.*	*Description:* The project activity does not fall under the purview of the Environmental Impact Assessment (EIA) notification of the Ministry of Environment and Forest, Government of India Hence, EIA is not required by the host party *Justification of evidences:* Evidence: http://envfor.nic.in/divisions/iass/notif/eia.htm is being cross checked by the assessment team and found correct *Conclusion:* EIA is not required for this project activity	/MoEF/	OK	OK
D.1.4. Are transboundary environmental impacts considered in the analysis? (EB 55 Annex 1, §§ 131–133) *Check the documents and local official sources / expertise regarding transboundary environmental impacts.*	*Description:* The project activity does not fall under the purview of the Environmental Impact Assessment (EIA) notification of the Ministry of Environment and Forest, Government of India Hence, EIA is not required by the host party *Justification of evidences:* Evidence: http://envfor.nic.in/divisions/iass/notif/eia.htm is being cross checked by the assessment team and found correct *Conclusion:* EIA is not required for this project activity	/MoEF/	OK	OK
E. Stakeholder Comments *The DOE should ensure that stakeholder comments have been invited with appropriate media and that due*				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
account has been taken of any comments received.				
E.1. Have relevant local stakeholders been invited to consultation prior to the publication of the PDD? (EB 55 Annex 1, § 128) *Check by means of document review and interviews with local stakeholders if and when a local stakeholder consultation process has been carried out.*	*Description:* The local stakeholder consultation was carried out for the project activity 09/12/2011. The stakeholder consultation process was carried out before the global stakeholder consultation. *Justification of evidences:* The local stakeholder consultation minutes of meeting were checked by the validation team and found correct. *Conclusion:* The local stakeholder consultation meeting was carried out on 09/12/2011.	/LSHC/ /PDD/ /IM01/	OK	OK
E.2. Can the local stakeholder consultation process be assessed as adequate? (EB 55 Annex 1, § 129(a)–(c)) *Describe what assessment steps have been undertaken to assess the adequacy of the stakeholder consultation process. Give a final opinion on the adequacy.* *Please consider the following requirements in this context:* *(a) Comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity, have been invited;* *(b) The summary of the comments received as provided in the PDD is complete;*	*Description:* Positive opinion is obtained during the local stake holder consultation process *Justification of evidences:* The local stakeholder consultation minutes of the meeting was cross checked by the validation team and found correct as positive opinion received during the process. *Conclusion:* The local stakeholder consultation minutes of the meeting was cross checked by the validation team and found correct as positive opinion received during the process.	/LSHC/ /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.**
(c) The project participants have taken due account of any comments received and have described this process in the PDD.				

ANNEX 2: ASSESSMENT OF BASELINE IDENTIFICATION

Table A-2: Assessment of Baseline Identification (EB 55 Annex 1 §§83 – 86)

☐	Baseline is not identified
☒	Assessment of baseline see below

Baseline Alternatives identified	In line 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)
The electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants"	☒	☐	No other alternative need to be identified for large wind power generation project as per ACM0002 ver. 12.3.0, as the methodology itself prescribes the baseline		☐	According to ACM0002 ver. 12.3.0, "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 would have otherwise been generated by the operation of grid-connected power plants" and by the addition of new generation. No alternative needs to be identified for the project activity

ANNEX 3: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-3: Assessment of Financial Parameters (EB 55 Annex 1, §§ 111, 112, 114/ in case financial parameters stem from FSR §113,)

☐	No financial parameters are used for additionality justification
☒	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	Comment
Plant Capacity	75.6	MW	Offer letter dated 04/07/2011 Purchase Orders dated 29/07/2011 Commissioning Certificates dated 30/03/2012 and 31/03/2012	/OFFER/ /PO/ /CC/	☒	The overall capacity for the proposed project activity is appropriate based on the offer letters/OFFER/ received and also purchase order placed subsequently by the companies/PO/. The installed capacity is also evidenced by the commissioning certificates issued by respective Discom/CC/.
Project life	20	Years	Offer letter dated 04/07/2011	/OFFER/ /RERC/	☒	The period chosen for investment analysis is 20 years which is in line with the offer letter submitted by Suzlon Energy Limited. The technical life time of the project activity is in line with Annex 5 EB 62 i.e. input values available at the time of Investment decision. Moreover, assessment team checked the tariff order dated 16/09/2009 BY RERC, 2007 which confirms the technical lifetime for the WTGs as 20 years.
Project Cost	4723.2	INR million	Offer letter dated 04/07/2011 Purchase Orders dated 29/07/2011	/OFFER/ /PO/	☒	The project cost is based on the offer letter, the copies have been submitted to validation team. The total cost of the project works out to INR 4723.2 mn i.e. INR 62.5 mn/MW. The cost considered in the computation of financial indicator is in conformity with guidance 6 of Annex 06, EB 62. As the offer letters were available during decision making and financial profitability of the project was decided based on

these offer letter. Hence, the project cost consideration is justified. During assessment validation team assessed all the offer letters/OFFER/ and found in compliance to para 113, VVM ver 1.2.

Further, signed purchase orders/PO/ have been checked by the assessment team as the actual cost is available during the validation which is has been used for further substantiation. According to the PO total project cost of INR 4500 mn (59.52 mn./MW).

In all the cases, actual project cost is 4.73% less than the offer cost . However, PPs have taken variation of -10% to +10% in the project cost in conducting the sensitivity analysis. Since guidance 6 of Annex 05, EB 62 requires the cost should be based on the input parameters available at the time of decision making and the PP have submitted offer letters supporting this cost. Therefore, considering the above assessment, validation team concluded that the project cost considered from respective offer letter in the computation of financial indicator is in conformity with guidance 6 of Annex 05, EB 62 as well as para 111 (b), VVM ver 1.2.
Moreover, validation team made an independent assessment considering the registered large scale project listed in UNFCCC website regarding per MW project cost. Validation team checked the total project cost of other CDM projects with capacity.

Moreover, validation team made an independent assessment considering the recently registered wind project located in Rajasthan listed in UNFCCC website regarding per MW project cost. Validation team checked the total project cost of other CDM projects. The table summarizes below:

Project no.	Name	Mn/MW
6437	Grid Connected Wind Power Project by M/s. D. J. Malpani at Ratan Ka	62.31

							Bas (RKB), Rajasthan	
						6403	1.5 MW Dharampal Satyapal Sons Pvt. Ltd. Wind Project at Jaisalmer, Rajasthan 2010	59.07
						5814	8.4 MW Wind Power Project in Rajasthan, India	55.32
						5531	1.5 MW wind power project of Nirmal B. Thakkar H.U.F. at Rajasthan, India	59.98
						5439	Wind power project in Jaisalmer, Rajasthan by Centaur Mercantile Pvt. Ltd.	55.70
						5923	Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.	60.00
						5090	Renewable Energy Wind Power Project in Rajasthan	59.34
						5845	Grid Connected Wind Power Project by M/s. Giriraj Enterprises at Tejuva, Rajasthan	55.32
						5794	Grid Connected Wind Power Project by M/s. D. J. Malpani in Rajasthan	58.93
						5646	Grid Connected Bundled Wind Power Project in Jaisalmer, Rajasthan, India	57.50
						5401	Installation of wind power project in Rajasthan and Tamil Nadu	56.00

From the above analysis, it is observed that the project cost/MW of windmills located in Rajasthan are ranging between INR 55.32 mn./MW to INR 62.31mn/MW while the actual project cost incurred is 59.52 mn./MW thus the project cost falls in the range of the observed costs for other projects.
In light of the above, assessment team concluded that the project cost are within the acceptable range and hence appropriate.

Plant Load Factor	20.1%	%	Report on estimation of PLF by by AWS True power dated 14/01/2011	/PLF/	☒	As per Annex 11, EB 48, the plant load factor (PLF) should be defined ex-ante according to one of the following 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). PP considered 20.1% PLF based on the PLF assessment by 3rd party engineering company. 3rd party assessed PLF conforms to the requirements of Annex 11, EB 48. Further the PLF has been confirmed with the Regulatory orders (L2) which state that the PLF for state of Rajasthan is 20%. The PLF values applied in the project are conservative as compared to the Regulatory orders, thus meeting the regulatory conditions of each state. Further the DOE has independently verified the PLF of wind projects in the Rajasthan state for L3 assessment which is as follows; Validation team observed that two wind projects in Rajasthan, India already registered as CDM activity have assumed the PLF at 19.51% and 19.30% (Reg. No. 4942) and 19.46% (Reg. No. 4679) (L3 information), thus the PLF considered under the project activity is assessed to be appropriate. Thus the validation team considers the PLF values provided by 3rd party report as applicable and appropriate for consideration.
Electricity Tariff	4.22	INR/ kWh	RERC tariff order dated 03/06/2011 & RERC tariff order date4 14/12/2011 PPA dated 03/02/2012 for 52.5 MW and 22/03/2012 for	/PPA/ /RERC/	☒	The electricity generated by this project activity would be exported to grid and PP has already entered into PPA with Jodhpur Vidyut Vitran Nigam Limited,. The tariff considered for the project activity is based on Rajasthan Electricity Regulatory Commission dated 03/06/2011

			23.1 MW			(http://www.rerc.rajasthan.gov.in/Orders.aspx) which were available at the time of decision making. According to RERC, the tariff is INR 4.22/kWh. The same has been considered in PDD which are in conformity with guidance 6 of Annex 05, EB 62. Furthermore, assessment team has also checked the actual tariff based on PPA signed for further substantiation as these values are available during the validation stage. It is confirmed by the assessment team that the tariff assumed at the time of decision making (INR 4.22/kWh based on RERC) and the tariff as per the actual PPA signed is INR 4.46/kWh. The actual PPA has varied as a new wind tariff order was in place on 14th December 2011 (http://www.rerc.rajasthan.gov.in/TariffOrders/Order120.pdf). As per the new tariff order the tariff for the projects are INR 4.46/kWh. Since guidelines 6 of Annex 05, EB 62 requires the PP to consider only those input parameters that were available at the time of decision making, considering tariff of electricity from RERC tariff order is in conformity with guidance 6 of Annex 05, EB 62 and thus acceptable by the assessment team and is in compliance to Para 113 (C), VVM ver1.2. Further the Tariff was confirmed with the signed PPA (L2) for the project Moreover as the tariff depends on the regulatory order prevailing at the time of decision making. Further the L3 assessment is as follows:

Name	Project no.	Electricity Tariff INR/ kWh
Grid Connected Wind Power Project by M/s. D. J. Malpani at Ratan Ka Bas (RKB), Rajasthan	6437	4.22
1.5 MW Dharampal Satyapal Sons Pvt. Ltd. Wind Project at Jaisalmer,	6403	3.83

						<table><tr><td>Rajasthan 2010</td><td></td><td></td></tr><tr><td>Wind power project in Jaisalmer, Rajasthan by Centaur Mercantile Pvt. Ltd.</td><td>5439</td><td>3.83</td></tr></table> Thus from the above it can be observed that the tariff is applied based on the prevailing tariff order. In addition to that the sensitivity analysis carried out for the project takes into account the assessment and consideration of the higher tariff applicable to the project and the project remains additionality even after consideration of the higher tariff (INR 4.46/kWh). Thus the Assessment team considers the tariff applied as appropriate for consideration.
Loan	3121.6	INR million	Sanction letter from IREDA dated 2012/02/15 IDFC Letter of Intent dated 2011/11/29	/LOAN/	☒	The project investment is funded by a mix of debt and equity. The Project proponent is into establishment of various wind farms across the country and thus has received an approval for higher capacity from IREDA dated 2012/02/15 and from IDFC dated 2011/11/29. In India, infrastructure projects are generally entitled to a debt equity ratio of 70:30. However, depending on the relationship of the client with the bank, its credit rating and collaterals offered banks consider higher debt equity ratio also. The debt equity considered in the project activity is 66.09:33.91. The validation team is convinced that the financing pattern assumed is appropriate and correct and is also valid. This is in conformity with guidance 11 of Annex 05, EB 62[7].
Interest on Term Loan	12.65	%	Sanction letter from IREDA dated 2012/02/15 IDFC Letter of Intent dated		☒	Prior to the decision making of this project activity, PP has experience in investing in wind power project in the state of Rajasthan. PP had availed a loan from IDFC at an interest rate of 13% (IDFC's Benchmark rate of 9.75% plus 3.25% spread). Therefore, the same

[7] Guidance 11of annex 13, EB 61 states, "In cases where a post-tax benchmark is applied the DOE shall ensure that actual interest payable is taken into account in the calculation of income tax"

			2011/11/29	/LOAN/		was available as reference to the PP. However, this project activity has received loan at an interest rate of 12.65%. Therefore, on a conservative approach, the project applies the actual interest rate of 12.65%. The interest rates are based on the agreement between PP and the banks which has been verified by the validation team. The loan agreement with IREDA mentions the interest rate of 12.65%. Hence, the interest rates assumed are correct and appropriate. Further the application of the interest rate based on the actual loan sanction letter is in conformity with guidance 11 of Annex 05, EB 62.
O &M cost	80.28	INR million	Offer letter dated 04/07/2011 O&M Agreement dated 29/07/2011	/OFFER/ /PO/ /O&M/	☒	During webhosting, PP considered the O&M cost /OFFER/ from the offer letter submitted by Suzlon Energy Limited. For the project WTG, O&M cost is free for 1st and 2nd year. From 3rd to end of life it will be escalated by 5% per year. Therefore, considering the above assessment, validation team concluded that the O&M cost considered from respective offer letter in the computation of financial indicator is in conformity with guidance 6 of Annex 05, EB 62 and appropriate. Further the project activity is already commissioned and the actual O&M cost is INR.76.5 Million per year which is only 4.7% lesser than the quotation cost and the variation is already covered in the sensitivity analysis. Thus any further reduction is ruled out. Further the project reaches the benchmark value only with a decrease in over 410% in the O&M cost, such drastic reductions in the costs is unrealistic and unlikely to happen. Further a comparison (L3) with other projects is as follows;

Name	Project no.	O &M cost (Mn/MW)
Project Case	-	1.06
Grid Connected Wind Power Project by M/s. D. J. Malpani at Ratan Ka Bas (RKB), Rajasthan	6437	1.13

						<table><tr><td>1.5 MW Dharampal Satyapal Sons Pvt. Ltd. Wind Project at Jaisalmer, Rajasthan 2010</td><td>6403</td><td>0.96</td></tr><tr><td>Wind power project in Jaisalmer, Rajasthan by Centaur Mercantile Pvt. Ltd.</td><td>5439</td><td>0.95</td></tr></table> The O&M cost from the above varies from 0.95 Mn/MW to 1.13 Mn. MW while in the project case the cost is 1.06 Mn./MW. Thus the O&M cost for the project is in the range when compared to other projects and is assessed to be appropriate.
GBI	0.50	INR/kWh	GBI rules 05/05/2010	/GBI/	☒	Generation based incentive is available to the projects and the same has been verified and found to be correct. http://www.inwea.org/others/OPERATIONAL_GUIDELINES.pdf
Depreciation (IT)	15	%	Income Tax Rules	/ACT/	☒	Depreciation provided for computation of IT liability is based on the Income Tax rules. The rate has been verified and found to be correct. http://law.incometaxindia.gov.in/DIT/income-tax-rules.aspx
Book Depreciation per annum (WDV)	5.28	%	Schedule XIV Companies Act	/act/	☒	PP has adopted book depreciation rate prescribed in Schedule XIV of Companies Act for computing book profit. This is in conformity with the accounting principles adopted by the company also. Validation team checked the Companies Act and found the rate to be correct
Corporate tax 2012-13	32.45	%	Income Tax Act	/ACT/	☒	The rate is based on the Income tax rate applicable to the financial year 2012-13, i.e., the year in which the project was expected to commission. The tax rate is correct and appropriate. http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphets/COMPANIES_2012_13.htm
MAT rate 2012-13	20.01	%	Income Tax Act	/ACT/	☒	The rate is based on the Income tax rate applicable to the financial year 2012-13, i.e., the year in which the project was expected to commission. The tax rate is correct and appropriate.

						http://www.incometaxindiapr.gov.in/incometaxindiacr/contents/forms2010/pamphets/COMPANIES_2012_13.htm
Tax holiday	10	Years	Income Tax Act	/act/	☒	As per Sec. 80IA of the Income Tax Act, infrastructure companies (under which the project activity falls) are entitled to claim tax holiday for any 10 consecutive years in the first 15 years of operation. Hence, the assumption and computation of tax liability are correct and appropriate.
Inflation rate for benchmark	5.5	%	Reserve Bank of India[8]	/rbi/	☒	Projected inflation rate for the crediting period has been sourced from the Reserve Bank of India website. Appendix to Annex 5, EB 62 recommends using inflation forecast of the central bank of the host country for the duration of the crediting period as the first option to convert the real rate of return into nominal rate of return. The value has been checked and found to be correct

[8] http://rbi.org.in/scripts/PublicationsView.aspx?id=13360 (Table A.7)

ANNEX 4: ASSESSMENT OF BARRIER ANALYSIS

Table A-4: Assessment of Barrier Analysis (EB 55 Annex 1, §118)

☒	No barrier parameters are used for additionality justification
☐	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
			☒	
			☒	
			☒	
			☒	
			☒	

ANNEX 5: OUTCOME OF THE GSCP

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

(§§ 40-42, VVM Version 1.2)

☐	No comments were received during the global stakeholder consultation period
☒	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

The Assessment of Global Stakeholder comments are as follows;

SL No	GSC Comment	PP Reply	DOE Reply
1.	DOE to ensure that the PDD values are consistent and ensure that the CDM project is a genuine project.	Supporting documents for all assumptions made during project conceptualization has been shared with the DOE for verification.	The PDD values are consistent. The supporting documents for assumptions have been checked by the team and found correct. However a CAR B9 has been raised as the assumption sheet does not provide the basis for each input parameter. Subsequently corrections have been made by updating the sheet which leads to the closure of the CAR.
2.	DoE to check the Detailed Project Report and Feasibility Report which is submitted to the other agencies and Banks by Project owner and ensure that the values match with the DPR/FR submitted to DoE also.	The feasibility is based on the project cost provided by the technology supplier before the decision making time. The supporting for actual project cost is provided to DOE for verification. Also the Bank Loan sanction letter states	The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. However, the assessment of the values and the input parameters of the project activity have been

		the project cost as provided by the PP to avail the loan.	provided in Annex 3 of this report. Also the documents provided by the PP has been checked and found the value consistent. Hence the comment can be closed.
3.	Careful study must be done so that the DPR/FR is not in different versions made and submitted with different purposes to different agencies, which is totally unacceptable, illegal and unethical.	The feasibility is based on the project cost provided by the technology supplier before the decision making time. The supporting for actual project cost (as mentioned in the loan sanction letters) is provided to DOE for verification.	The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. All the documents provided by the PP has been checked by the validation team carefully and found correct. Hence the comment can be closed.
4.	Project owner should show some undertaking letter from bank manager to DoE stating that both DPR's are same. These kinds of letters should not be accepted and entertained by DoE at face value, but must be checked independently. While collecting the DPR/FR from banks and other agencies, all DPR/FR pages should be counter signed by Banks and other agencies so that the real DPR/FR given to other parties by the PP/Consultant is same as the one submitted to DOE.	The feasibility is based on the project cost provided by the technology supplier before the decision making time. The supporting for actual project cost (as mentioned in the loan sanction letters) is provided to DOE for verification.	The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. However all the documents provided by the PP have been checked by the validation team carefully and

			independently. All are found correct and acceptable. Hence the comment can be closed.
5.	DPR/FR values must be probed fully. DOE must take a written undertaking from the PP/Consultant about the list of parties to whom this DPR/FR is submitted and for what purposes. Then DOE should cross check with all the parties and confirm that the same DPR/FR is submitted to all the parties correctly without any changes. DOE must not accept any reports and undertakings from PP/Consultant. DOE must make independent evaluation and use totally different parties without informing the PP or Consultant to cross check the facts.	The feasibility is based on the project cost provided by the technology supplier before the decision making time. The same is shared with the bank to source term loan. The Term loan sanction letter provides the project cost. The same is provided to DOE for verification	The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. Further, careful and independent evaluation has been carried out for each document provided by the PP and found correct and acceptable. Hence the comment can be closed.
6.	DOE to write to the party who prepared the DPR/FR which is submitted to the banks and other agencies and the same is verified against the one submitted to the DOE by PP/Consultant.	The question is for the DOE to respond.	The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. Further, the validation team has validated all the documents required independently and found

			correct and authentic. Hence the comment can be closed.
7.	DOE must not entertain this project any more if found the DPR/FR is tamprered with at any point in time. PP can not give different DPR's and FR's. They must submit only the one given to Banks and other agencies while obtaining loans and decision making time.	The question is for the DOE to respond.	The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. However, the validation team has validated all the documents required independently and found correct and authentic. Also none of the documents have been tempered at any point of time. Hence the comment can be closed.
8.	Has the PP considered the CDM revenues while envisaging the project? Without CDM the project was not viable, is it right? This project is having a debt component? Then how bankers or lenders gave the loan? Have the bankers or lenders considered the CDM revenues while agreeing to give loan to this projects? If not this project should be rejected right away by DOE by terminating the contract forthwith. If yes, where is the proof? What is the date of the evidence document from bank? Is this document printed now a days or earlier. DOE to independently check the same. If the	All documents have been provided to DOE for verification.	The DOE has checked the quotations, RERC tariff order which was available to the PP during the investment decision. Subsequently, the Loan sanction letter is also checked by the assessment team to verify the interest rate and debt

	document is available from Bank it must be checked from all angles so that it is genuine and not forged and date changed by putting back dated. This is normally done, DOE to be aware of this please. Please check the communication the PP had during that time with banks, emails and postal receipts and the weights and dates mentioned on the receipts. Do not believe in courier bills and receipts since these can be cooked up easily. Insist on government owned postal service receipts only. If the project is fully equity project then on what basis the PP has invested full equity in to the project while considering the CDM revenue? DOE to check the same in detail and bring out the facts. Is there any past record of this PP to invest or not to invest at returns what he is talking about in this project? Proper evidences must be reviewed and digged out by the DOE and take decision on the project based on established facts. Do not ask documents from PP, DOE to collect the same from different sources to do independent evaluation.		component. Actual Interest rate is considered which is as per Annex 5 EB62. However, it was observed that the assumptions are not clear in the web hosted PDD to reproduce the IRR calculation. Based on this observation DOE has raised CL B2, CL B3, CAR B5, CAR B6, CL B7, CAR B8, CAR B9, CAR B10, CAR B11, CAR B12, CAR B13, CAR B14, CL B15, CL B16, and CL B17. Subsequently all the CARs and CLs are successfully closed and thus the GSC comment is taken into account. The revised IRR calculation is now in line with all the applicable guideline and directions by EB.
9.	Is the project equipment purchased second hand equipment or sourced from cheap foreign sources? If yes, the issue must	The project proponent has purchased first hand	The PO has been reviewed and it is ensured

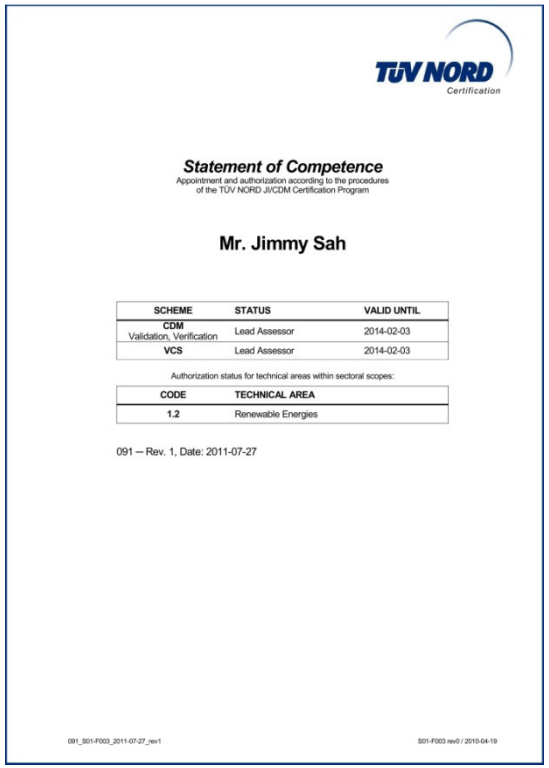
	be probed by DOE since invoices will invariably be inflated and forged. Total project costs mentioned by PP will not be the same as originals. Hence no additionality. These facts must be probed in full by DOE by checking all documents and money transactions along with bank statements and certified accounts by a legally acceptable financial analyst.	equipments from Suzlon Energy Limited. The model number is S95_90 model. The Quotations from Suzlon, as well as the Purchase Orders from Suzlon have been shared with the DOE for their verification.	that the project equipments are not second hand. Thus the comment can be closed.
10.	From DOE side which auditor has done marketing and business development for acquiring this business of validating this project? With whom he or she was co-ordinating at PP or CER buyer? The same person who has done the marketing and business development to acquire the business do validation or participate in any manner what so ever in the validation process? One cannot do like that. It is against the accreditation rules and norms followed since ages. DOE should send auditors from different offices or countries to do this validation audit. DOE must take care of impartiality and accreditation rules. Due to the targets set by the DOE managements auditors are doing marketing and meeting clients and giving promises that the project will be taken care. Is it acceptable and fair? This must be stopped. No auditor should do marketing. Only non-auditing staff should do marketing. DOE to ensure the same please.	The question is for the DOE to respond	TUV Nord follows internal procedures (JI/CDM procedures) which are in-line with the CDM accreditation standards to manage situations arising due to **conflict of interest**. Thus the comment can be closed.
11.	If applicable only: Is these machines, equipment was a part of any bundle of CDM activity envisaged and developed earlier. DOE to check the same through independent sources also.	The project is a large scale project, hence this is not applicable.	The project is a large scale project activity; further the WTGs in the project were

	Once some bundles are non-additional and getting negative validation from a DOE, PP is rolling out the same project as an individual project which is not a CDM project at all. DOE to verify the same from independent sources and also take undertaking in the form of an affidavit from the PP's that any misrepresentation or false statement with respect this would attract strict legal action from UNFCCC and DOE. Furthermore the registered project must be de-registered in case of any future findings contradicting the submissions made by the project owner.		not part of any other project activity. During the site visit and the interviews the same was found correct. Also EB 54, Annex 13 has been checked for the same. Thus the comment can be closed.
12.	DOE to be more careful so that this is a genuine CDM project. What is the exact project cost? The project cost is covering what? Each value considered must be validated with proof. The machinery is second hand purchased or fresh and new from an OEM? In either case DOE to check all the quotations, proposals, purchase orders, invoices, way bills, transport bills, proof of payments like bank statements. DOE to check with banks by way of written confirmation the amount transacted, to whom the money is paid, when the money is paid, is the party paid is the correct party as shown in the purchase orders. It may so happen that the values, party names, dates are fabricated and misrepresented in this project. DOE should terminate their contract for this project immediately. This is the only way out to protect the value of CDM process. If the PP is purchasing second hand or second quality equipment and inflating the purchase order values and invoices, this must be probed thoroughly and real values to taken for additionality calculation. Then I'm sure the additionality is not there at all in such a situation.	The project cost is based on the Quotations received from Suzlon. The quotations as well as the Purchase Orders have been shared with DOE for their verification. Every parameter considered has been taken from publicly available sources and their sources have also been mentioned. All equipments purchased are first hand equipments from Suzlon Energy.	The DOE has checked the quotations, RERC tariff order which was available to the PP during the investment decision. Subsequently, the Loan sanction letter is also checked by the assessment team to verify the interest rate and debt component. Actual Interest rate is considered which is as per Annex 5 EB62. However, it was observed that the assumptions are not clear in the web hosted PDD to reproduce the IRR calculation. Based on this observation DOE has raised CL B2, CL B3, CAR

			B5, CAR B6, CL B7, CAR B8, CAR B9, CAR B10, CAR B11, CAR B12, CAR B13, CAR B14, CL B15, CL B16, and CL B17. Subsequently all the CARs and CLs are successfully closed and thus the GSC comment is taken into account. The revised IRR calculation is now in line with all the applicable guideline and directions by EB. Further no second hand equipment has been purchased for the project activity. The PO has been reviewed and it is ensured that the project equipments are not second hand. Thus the comment can be closed.

13.	How is the base line defined in this project? Is Base line hypothetically defined with no proper evidences and proper justification? In such case, DOE cannot take the base line as suggested by the PDD. Please check that there are real emission reductions beyond the real and factual base line. It may so happen that this project qualifies for no CER's. DOE cannot assume values and things as giving by this PP. Whatever values are considered throughout the project in all documents including the real DPR (not the one prepared for CDM, the one given to the banks and others), they must be validated, verified and double checked. Do not ask PP for DPR. Ask the parties who have been given DPR by the PP. Get directly from the bank and others by each page of the DPR and Feasibility report signed. Such document can be considered as a real DPR or FR. UNFCCC CDM process cannot be degraded by fabricating and misinterpreting the project base line and additionality.	The baseline has been identified as per the applied methodology (Version 12.3.0 of ACM0002). The same has been mentioned in the PDD. The baseline in this case is the NEWNE grid. The details of selection of baseline have been mentioned in section B.4 of the PDD. There is no DPR or Feasibility Study Report for this project. The feasibility is based on the project cost provided by the technology supplier before the decision making time. The supporting for actual project cost is provided to DOE for verification. Also the Bank Loan sanction letter states the project cost as provided by the PP to avail the loan.	The baseline has been demonstrated in line with the methodology, ACM0002 version 12.3.0. The Investment decisions are based on quotations, tariff order etc. There is no DPR /FSR for the project activity. Hence the comment can be closed.

ANNEX 6: STATEMENTS OF COMPETENCE OF ALL INVOLVED PERSONNEL



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Jimmy Sah

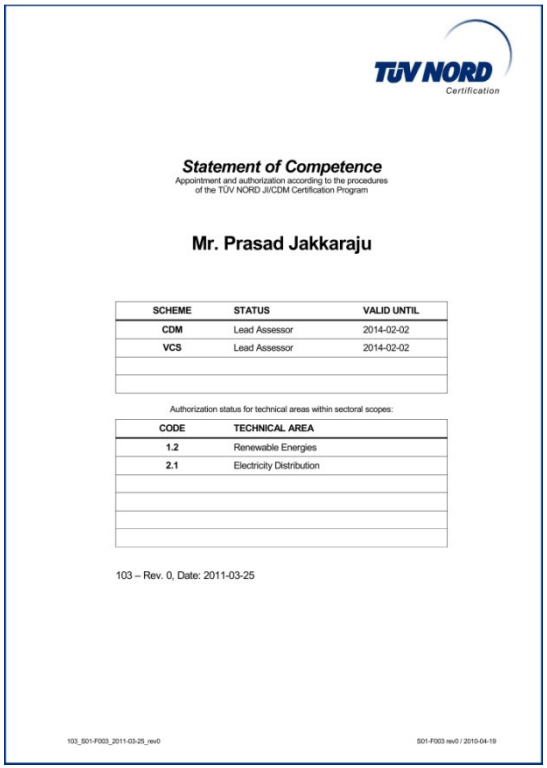
SCHEME	STATUS	VALID UNTIL
CDM Validation, Verification	Lead Assessor	2014-02-03
VCS	Lead Assessor	2014-02-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies

091 – Rev. 1, Date: 2011-07-27

091_S01-F003_2011-07-27_rev1 S01-F003 rev0 / 2010-04-19



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Prasad Jakkaraju

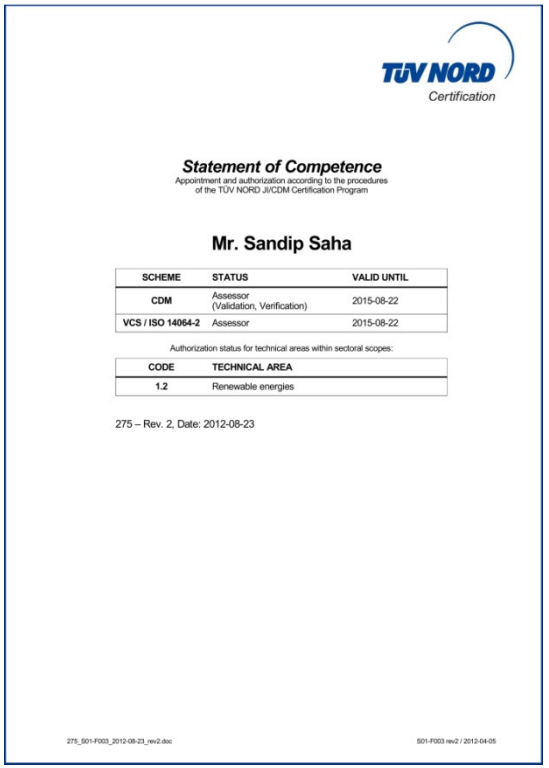
SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2014-02-02
VCS	Lead Assessor	2014-02-02

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
2.1	Electricity Distribution

103 – Rev. 0, Date: 2011-03-25

103_S01-F003_2011-03-25_rev0 S01-F003 rev0 / 2010-04-19



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Sandip Saha

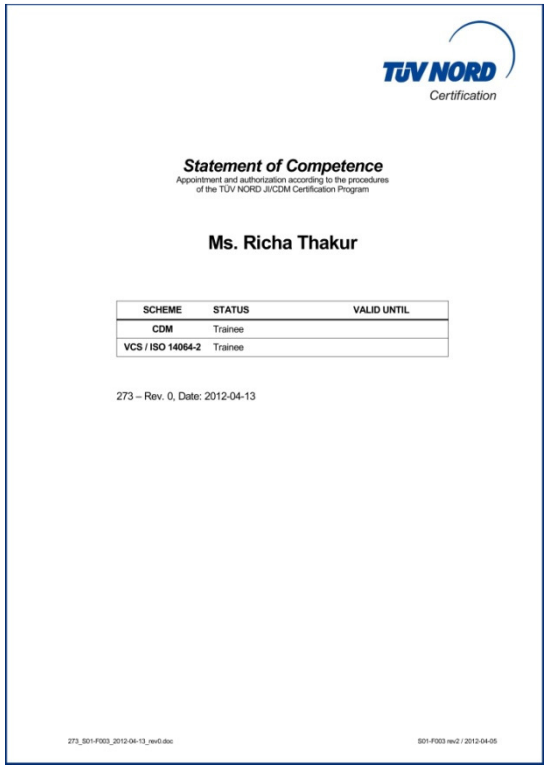
SCHEME	STATUS	VALID UNTIL
CDM	Assessor (Validation, Verification)	2015-08-22
VCS / ISO 14064-2	Assessor	2015-08-22

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable energies

275 – Rev. 2, Date: 2012-08-23

275_S01-F003_2012-08-23_rev2.doc S01-F003 rev2 / 2012-04-05



TÜV NORD Certification

Statement of Competence

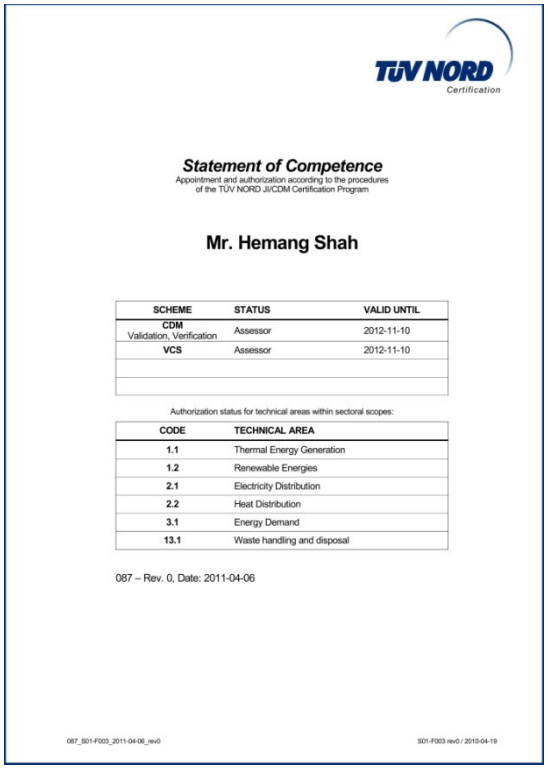
Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Ms. Richa Thakur

SCHEME	STATUS	VALID UNTIL
CDM	Trainee	
VCS / ISO 14064-2	Trainee	

273 – Rev. 0, Date: 2012-04-13

273_S01-F003_2012-04-13_rev0.doc S01-F003 rev2 / 2012-04-05



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Hemang Shah

SCHEME	STATUS	VALID UNTIL
CDM Validation, Verification	Assessor	2012-11-10
VCS	Assessor	2012-11-10

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.1	Thermal Energy Generation
1.2	Renewable Energies
2.1	Electricity Distribution
2.2	Heat Distribution
3.1	Energy Demand
13.1	Waste handling and disposal

087 – Rev. 0, Date: 2011-04-06

087_S01-F003_2011-04-06_rev0 S01-F003 rev0 / 2010-04-19

TÜV NORD

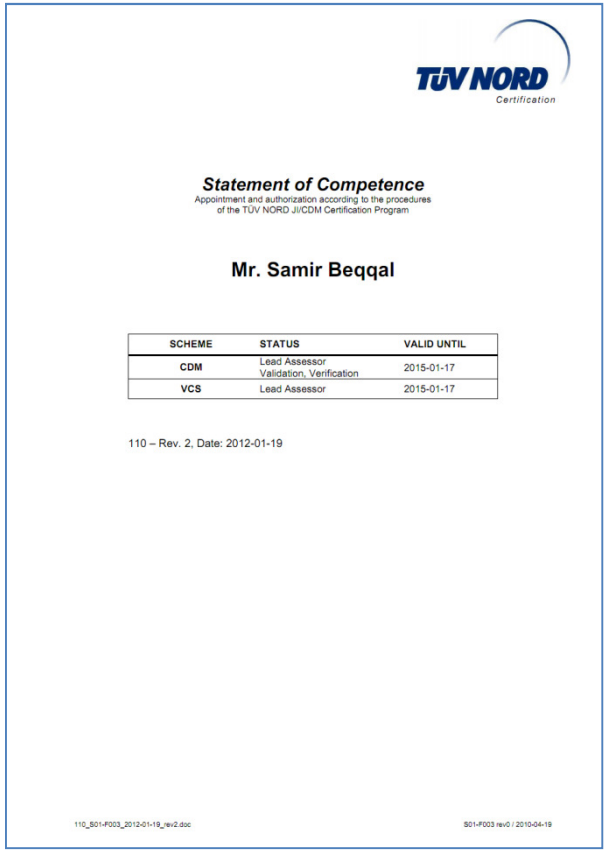
Statement of Competence

Mr. Rainer Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2013-07-03
JI	Senior Assessor Technical Reviewer	2013-07-03
VCS	Senior Assessor Technical Reviewer	2013-07-03

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal Energy Generation	
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal
4.1	Cement Sector	
4.3	Iron and Steel	
4.5	Waste Heat Recovery	
5.1	Chemical Process Industries	
9.1	Metal Production	
11.1	Chemical Process Industries	
11.2	GHG Capture and Destruction	
12.1	Chemical Process Industries	
13.1	Waste Handling and Disposal	13.1.1 Waste Management

003 – Rev. 5, Date: 2011-08-01



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Samir Beqqal

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor Validation, Verification	2015-01-17
VCS	Lead Assessor	2015-01-17

110 – Rev. 2, Date: 2012-01-19

110_S01-F003_2012-01-19_rev2.doc S01-F003 rev0 / 2010-04-19