VALIDATION REPORT

GUJARAT FLUOROCHEMICALS LIMITED

10.5 MW WIND POWER PROJECT IN OSSIYA, RAJASTHAN BY GUJARAT FLUOROCHEMICALS LIMITED (GFL)

Report No: 8107113032 – 10/420

Date: 2012-12-07

TÜV NORD CERT GmbH
JI/CDM Certification Program
Langemarckstraße, 20
45141 Essen, Germany
Phone: +49-201-825-3335
Fax: +49-201-825-3290
www.tuev-nord.de
www.global-warming.de

Validation Report:	***Report No.***	***Rev. No.***	***Date of 1st issue:***	***Date of this rev.***
	8107113032 – 10/420	0	2012-12-07	2012-12-07
Project:	***Title:***		***Initial PDD Version:***	***Final PDD Version***
	10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)		2010-09-13 Ver. 01	2012-09-06 Ver. 06
Client:	Gujarat Fluorochemicals Limited		***Client ref:***	Mr. Deepak Asher
Project Participant(s):	***Host Party:***		***Other involved parties:***	
	India		NA	
Applied methodology/ies:	***Title:***		***No.:***	***Scope / TA:***
	Consolidated methodology for grid-connected electricity generation from renewable sources		ACM0002 ver. 13.0.0	1 / 1.2
Validation team / Technical Review and Final Approval	***Validation Team:***		***Technical review:***	***Final approval:***
	Abhishek Kumar Srivastava (TL) Pankaj Mohan (TM) Arshi Vimal (TM)[1] Vineet Kumar (TM)		Ingo Klein Prasad Jakkaraju Samir Beqqal	Ingo Klein
Expected Emission reductions: [t CO_2e]	***Expected emission reductions over the first crediting period:***		***Project starting date:***	
	124,529 t CO_{2e}		2009-08-08	
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) dated 2010-12-22 ☒ 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 124,529 tCO_2e are most likely to be achieved within the (1st renewable) 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.			
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[1] TM till 12.07.2012

Abbreviations

BAU	Business as usual
BFUL	BF Utilities Ltd.
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CESC	Calcutta Electric Supply Corporation
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
GFL	Gujarat Fluorochemicals Limited
GHG	Greenhouse gas(es)
GIPCL	Gujarat Industries Power Company Ltd
IPCC	Intergovernmental Panel on Climate Change
NTPC	National Thermal Power Corporation
PDD	Project Design Document
QC/QA	Quality control/Quality assurance
RERC	Rajasthan Electricity Regulatory Corporation
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual
WACC	Weighted average costs of capital

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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	10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)		
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 methodology for grid-connected electricity generation from renewable sources (ACM0002 Version 13.0.0)		
Technical Area(s)	1.2 Renewable Energies		
Crediting period	☒ Renewable Crediting Period (7 y) ☐ Fixed Crediting Period (10 y)		
Start of crediting period	2013-01-01		

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 Gujarat Fluorochemicals Limited
Other involved party/ies	NA	NA

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:	Rajasthan

<table>
<tr><td>No.</td><td>Project Location</td></tr>
<tr><td>Project location address:</td><td>Ossiya, Jodhpur</td></tr>
<tr><td>Latitude:</td><td>
<table>
<tr><th>Location No.</th><th>Latitude N</th></tr>
<tr><td>P003</td><td>N 26° 41’ 26.7”</td></tr>
<tr><td>P009</td><td>N 26° 44’ 14.1”</td></tr>
<tr><td>P010</td><td>N 26° 44’ 29.8”</td></tr>
<tr><td>P011</td><td>N 26° 44’ 42.3”</td></tr>
<tr><td>P016</td><td>N 26° 45’ 20.8”</td></tr>
<tr><td>P017</td><td>N 26° 45’ 47.6”</td></tr>
<tr><td>P020</td><td>N 26° 46’ 39.2”</td></tr>
</table>
</td></tr>
<tr><td>Longitude:</td><td>
<table>
<tr><th>Location No.</th><th>Longitude E</th></tr>
<tr><td>P003</td><td>E 73° 02’ 24.3”</td></tr>
<tr><td>P009</td><td>E 73° 02’ 44.2”</td></tr>
<tr><td>P010</td><td>E 73° 02’ 21.5”</td></tr>
<tr><td>P011</td><td>E 73° 02’ 14.2”</td></tr>
<tr><td>P016</td><td>E 73° 02’ 31.1”</td></tr>
<tr><td>P017</td><td>E 73° 02’ 44.7”</td></tr>
<tr><td>P020</td><td>E 73° 03’ 02.4”</td></tr>
</table>
</td></tr>
</table>

2.4 Technical Project Description

The proposed project activty involves the installation of 7 number of WTGs of 1.5 MW each (10.5 MW) in the state of Rajesthan by Gujarat Fluorochemicals Limited. Suzlon Energy Ltd is the equipment supplier and operation and Maintenance contractor for the project activty. The main purpose of the project activcty is to generate electricity using wind power, a renewable energy source to meet the increasing demand of energy in the region. The genrated power will be supplied to NEWNE grid of India. Thus the project activity will reduce the anthropogenic emissions of GHGs (Greenhouse Gases) in to the atmosphere by displacing the equivalent amount of electricity, which would have been generated through the operation of existing fossil fuel based power plants connected to grid.

The project activity harnesses wind energy to generate and supply electricity to the NEWNE grid of India. The WTGs can convert wind energy in to electrical energy without using any other fuel as input for electricity generation. The emission factor assosiated with the NEWNE grid fossil fuel dominated and published by CEA. The project activity is expected to reduce emissions of GHGs by an estimated 17,789 tCO_2e per year by displacing equivalent amount of the electricicty from the NEWNE grid.

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

Table 2-4: Technical data of the project activity

Parameter	Unit	Value
Rotor		
Diameter	M	82.0
Cut in Wind speed	m/s	4
Rated wind speed	m/s	14
Generator		
Rated output	KW	1500
Operating voltage	V	690
Frequency	Hz	50

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	2010-08-04
Submission of PDD for global stakeholder commenting process	2010-09-17
On-site visit date	2010-10-26
Re Submission of PDD for global stakeholder commenting process	2011-02-28
Draft reporting finalised	2011-04-06
Final reporting finalised	2012-12-07
Technical review on final reporting finalised	2012-12-07

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 03 additional team members, 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.	Abhishek Kumar Srivastava	TUV India Pvt. Ltd.	TL	LA	☒	1.2	☒	☒
☒ Mr. ☐ Ms.	Pankaj Mohan	TUV India Pvt. Ltd.	TM[A)]	SA	☒	1.2	☒	☐
☐ Mr. ☒ Ms.	Arshi Vimal[2]	TUV India Pvt. Ltd.	TM[A)]	A	☒	1.2	☒	☒
☒ Mr. ☐ Ms.	Vineet Kumar	TUV India Pvt. Ltd.	TM[A)]	A	☒		☒	☒
☒ Mr. ☐ Ms.	Samir Beqqal	TUV Nord Cert GmbH	TR[B)]	LA	☒	-	☐	-
☒ Mr. ☐ Ms.	Prasad Jakkaraju	TUV India Pvt. Ltd.	OR[B)]	LA	☒	1.2	☒	-

[2] TM till 12.07.2012

	Name	Company	Function [1]	Qualification Status [2]	Scheme competence [3]	Technical competence [4]	Host country Competence	On-site visit
☒ Mr. ☐ Ms.	Ingo Klein	TUV Nord Cert GmbH	TR[B] / 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/ Stakeholders/IM03/	- Chronological description of the project activity with documents of key steps of the implementation. - Current status of plant design - Technical details of the project realization, project feasibility, designing, operational life time, monitoring of the project - Host Government Approval - Approval procedures and status - Monitoring and measurement equipment and system. - 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	01	03	00
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	11	06	00
Duration of the Project / Crediting Period (C)	01	00	00
Environmental impacts (D)	00	00	00
Stakeholder Comments (E)	01	01	00
SUM	**14**	**10**	**00**

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)	Desk Review and Site Visit
PDD v. 2 (Republished)	Description of Findings
PDD v. 3	DOE Assessment #1
PDD v. 4	DOE Assessment #2
PDD v. 5	DOE Assessment #3
PDD v. 6	Additional findings (Based on TR)

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 description of project activity	**A1**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	As per the requirement of CDM modalities and procedures the Letter of Approval needs to be obtained from the parties involved. The PDD section A.4 reveals that the party involved is India (host party). LoA issued by the DNA of host country is not submitted to the validation team.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The Host Country Approval is being 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.*	The copy of the host country approval issued by the the DNA of India, vide reference no. 4/15/2010-CCC dated 2010-12-22 is submitted to the validation team as per the requirement of CDM modalities and procedures. 1. The project has written the approval from the host party (India) involved. 2. The HCA has been issued by Ministry of Environment and Forestry (MoEF)/MOEF/ which is listed as the DNA on the UNFCCC CDM website. 3. The host country approval/HCA/ confirms that the corresponding party is a Party to the Kyoto Protocol. 4. The host country approval/HCA/ confirms that the participation is voluntary. 5. The host country approval/HCA/ confirms that the project contributes to the sustainable development in the country. 6. The host country approval/HCA/ refers to the precise project title i.e. 10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited in the PDD submitted for registration. 7. The host country approval/HCA/ is unconditional with regard to the checklist questions, A.1.3 to A.1.6 in the validation protocol of the FVR. 8. The host county approval/HCA/ has been issued in the name of Gujarat		

General description of project activity	**A1**
	Fluorochemicals Limited which is listed as the project proponent in section A3 and annex 1 of the PDD. 9. The host country approval[/HCA/] mentions that the project assists in achieving sustainable development in the host country (India). Hence CL A1 is successfully closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

General description of project activity	**A2**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Following observations from CDM-PDD guidelines/form were observed: 1. Units used throughout the PDD are not consistent. Cp CDM-PDD guidelines. 2. All figures and tables in the PDD are not captioned and numbered. 3. A web link or supporting documents for the technical specifications of the WTGs are missing. 4. Section A.4.2 of the PDD does not contain description regarding information about the age and average lifetime of the equipments based on manufacturer's specifications and industry standards, and existing and forecast installed capacities, load factors and efficiencies. The monitoring equipments and their location in the systems is of particular interest. Cp CDM-PDD filling guidelines.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	1. The units used in the PDD have been revised and are as per the CDM SSC PDD guidelines 2. All figures and tables in the PDD are captioned and numbered 3. Proposal from Suzlon dated 16th of April 2009 is provided to DOE as Annexure 23 as supporting documents for the technical specifications of the WTGs.		
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. Not OK. 2. Not OK. 3. Annexure 23 is not getting opened. Please resubmit the same. CAR A2 is open.		
Corrective Action #2	Annexure 23 is resubmitted to DOE		
DOE Assessment #2	All the three CAR points are not answered by PP. CAR A2 is open.		
Corrective Action #3	1. The units in the PDD have been revised 2. All figures and tables in the PDD are captioned and numbered 3. Supporting documents for the technical specifications of the WTGs is submitted as annexure.		

General description of project activity	**A2**
DOE Assessment #3	1. VT checked the revised PDD and found that all the units, used in the PDD are as per the CDM-SSC-PDD guidelines. 2. All the figures and tables are numbered and captioned in the revised PDD. 3. Submitted supporting documents for the technical specifications of the WTGs as annexure 23 was checked by VT and found that the specification, mentioned in the PDD are matching with them. Hence CAR A2 is successfully closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

General description of project activity	**A3**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	As per the webhosted PDD, GFL has undertaken an operation and maintenance agreement with the supplier of the wind turbines i.e. Suzlon Energy Limited, but the submitted training certificates are from SAFEPRO. Pl. Clarify.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	GFL confirms the undertaking of training programme by Suzlon officials. Suzlon has outsourced the training services to third party i.e. SAFEPRO and hence the certificate states the name of the training agency. The same was observed by the DOE agency during the site visit as well.		
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 undertaking for the same is missing. CL A4 is open.		
Corrective Action #2	Project proponent would like to clarify that the training of its operation and maintenance team was carried out by Suzlon. Suzlon has outsourced some of the training modules to SAFEPRO, who conducts training on behalf of Suzlon. Hence, the training certificate submitted to DOE was from SAFEPRO.		
DOE Assessment #2	The undertaking regarding the trainer for training programmes is documented under section B.7.2 of the revised PDD. The training certificates issued by M/s SAFEPRO are also submitted by PP as documentary evidence and hence provided clarification by PP is acceptable to VT and CL A4 is successfully closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

General description of project activity	**A4**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PP needs to substantiate the location of each and every WTG involved in the proposed project activity under section A.4.1.4 of the webhosted PDD.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The commissioning certificate uniquely identifies each and every WTG through Loc No. The same has been provided in the PDD in the section A.4.1.4. Latitude and longitude of all the WTGs have been identified by Suzlon. The commissioning certificate and letter from Suzlon identifying latitude and longitude of individual WTGs are provided to DOE as documentary evidence in Annexure 1		
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 has checked the commissioning certificate for the project activity and observed that each WTG commissioned has been mentioned with unique location number and same has been reflected in PDD. Geographical coordinates against these unique location number for these WTGs has been checked from the letter issued by Suzlon Energy Ltd. on their letter head dated 2011-04-15 and found that all the latitudes and longitudes of the WTGs are matching with the section A.4.1.4 of the revised PDD. Hence CL A5 is successfully closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Project Baseline, Additionality and Monitoring Plan	**B1**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	As per the applied methodology, "The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to". However, clarify the reasons of excluding the grid from the project boundary. Moreover, clarify the relevance of the Auxiliary consumption.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The grid has been included in the project boundary of the revised PDD. Also auxiliary consumption has been removed from the project boundary. Instead it has been clarified that meters will monitor both export of electricity to grid and import of electricity from grid, in line with monitoring plan described in section B.7.1 and B.7.2.		
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.*	VT has checked the revised PDD and observed that now the grid has been made the part of the project boundary, which is appropriate as per the applied methodology. Also now auxiliary consumption has been removed appropriately, now the same is in line with monitoring plan given in PDD. CAR B1 is closed.		
Conclusion	☐ To be checked during the first periodic verification		

Project Baseline, Additionality and Monitoring Plan	**B1**
Tick the appropriate checkbox	☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B2**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The starting date for the proposed project activity is 2009-08-08 (the date of agreement with supplier has been taken as start date of the project activity). However PP is requested to substantiate the project start date.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	As per the CDM Glossary of terms Version 05, the start date is defined as the date on which the project participant has committed to expenditure related to the implementation or related to the construction of the project activity. Hence, as per CDM glossary, the date of contract of the Equipment Supply dated 08-08-2009 is considered as the project start date. Copy of contract is provided to the DOE as documentary evidence as Annexure 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 has checked the submitted copy of the contract between Gujarat Fluorochemicals Limited and Suzlon Energy Ltd. for the equipment supply is on the date 2009-08-08, which is taken as the project start date by the project proponent, hence acceptable and CAR B2 is successfully closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Project Baseline, Additionality and Monitoring Plan	**B3**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PDD describes that the project start date is 2009-08-08 which is after 2008-08-02. As per the webhosted PDD, PP informed the UNFCCC and host party DNA, but VT could not found it on the respective website. Hence a specific link needs to be provided by PP.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The project is enlisted with UNFCCC web site as a 10.5 MW Wind power project at Jodhpur, Rajasthan. The prior consideration form for the project was sent to UNFCCC on 23rd of October 2009 and same was enlisted on UNFCCC web site on 26th of October 2009.		

Project Baseline, Additionality and Monitoring Plan	**B3**
	The prior consideration form sent to UNFCCC is provided to DOE as Annexure 3
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 checked the submitted prior consideration form dated 2009-10-23, still a web link showing the listing of the same on the UNFCCC website are to be provided by the project proponent. CL B3 is open.
Corrective Action #2	As per the "*Guidance on the demonstration and assessment of prior consideration of the CDM"* Version 04, for project activities with start date after 02 August 2008, it is required to demonstrate that CDM was seriously considered in the decision to implement the project activity. Accordingly, GFL had informed the UNFCCC as well as the Host Party DNA i.e. National CDM Authority (NCDMA) vide its notification dated 23rd October 2009 of their intention to seek CDM status for the project activity under the project title "10.5 MW wind power project at Jodhpur, Rajasthan, India". The same was uploaded on the UNFCCC web site on 26th of October 2009. The project can be traced on UNFCCC web site at: (http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html?s=40)
DOE Assessment #2	UNFCCC website has been verified and the information is found to be correct. CAR B3 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B4**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	It is not clear in the section B.5 of the webhosted PDD that when investment decision with CDM consideration was taken by the PP in order to validate the input data and parameters to demonstrate the additionality.		
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 was taken by GFL at its board meeting held on 22nd of May 2009. The input data and parameters considered to demonstrate additionality are the same which were available with the GFL board at the time of taking investment decision for the project. The copy of extract of minutes of meeting of the board meeting is provided to DOE as Annexure 4		
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 checked and found that the PP has included the CDM consideration details in the section B.5 of the revised PDD, also a certified true copy of the resolution passed at the meeting of the board of directors of the company dated 2009-05-22 indicating the prior CDM consideration is submitted. Hence CAR B4 is successfully closed.		

Project Baseline, Additionality and Monitoring Plan	**B4**
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B5**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PP is requested to submit the minutes of the meeting and the board resolution passed by the board of directors.		
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 was taken by GFL at its board meeting held on 22nd of May 2009. The copy of extract of minutes of meeting of the board meeting is provided to DOE as Annexure 4.		
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.*	PP has submitted the minutes of the meeting of the board meeting held on 2009-05-22. The decision was taken by the person who is authorised by the board of company. The minutes of meeting indicates that CDM was decisive factor in order to go ahead with project activity. Hence CL B5 is successfully closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Project Baseline, Additionality and Monitoring Plan	**B6**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PDD indicates the RERC order dated 09.03.2007; however, IRR sheet indicates RERC tariff order dated 23/01/2009. Clarify, which order is used as the basis and where all the input values are sourced from like Tariff, escalation etc		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	RERC tariff order dated 23/01/2009 has been used as the basis for tariff, escalation etc. The same has been updated in the revised PDD.		
DOE Assessment #1 *The assessment shall encom-*	Revised PDD has been checked and found updated suitably. Now the PDD and excel sheet are consistent. The RERC tariffs order dated		

Project Baseline, Additionality and Monitoring Plan	**B6**
pass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	2009/01/23 has been checked and found supporting the tariff applied.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B7**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Section B.5 does not contain either credible alternatives or any statement to the effect that consideration of credible alternatives is not necessary for the project activity.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The only alternative of the project activity is undertaking of the project activity without consideration of CDM revenues. It has been demonstrated in the PDD that the project activity faces barriers and is not feasible without CDM revenues. Hence, project activity would not have developed by project proponent without CDM benefits The same has been included in the revised 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.*	PDD has been suitably modified and the explanation given in the revised PDD is acceptable. CAR B7 is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Project Baseline, Additionality and Monitoring Plan	**B8**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PDD does not explain the appropriateness of the project IRR (selected as financial indicator) to the project type and decision making context.		
Corrective Action #1	Guidance 16 of Annex 58, EB 51 states that "If the alternative to the		

Project Baseline, Additionality and Monitoring Plan	**B8**
This section shall be filled by the PP. It shall address the corrective action taken in details.	project activity is the supply of electricity from a grid this is not to be considered an investment and a benchmark approach is considered appropriate". Since, the project activity supplies electricity to grid, hence in accordance with the guidelines, benchmark analysis has been used for demonstrating investment barrier for the project activity. The project is entirely funded by project proponent's equity and involves no rising of debt. Hence, equity IRR has been used to determine financial returns from the project. Hence, the equity IRR was found to be the most appropriate financial indicator for feasibility analysis of this project activity. The same has updated in the revised 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.*	Since the project is entirely funded by equity, equity IRR has been used as financial indicator. However, how the equity IRR is considered appropriate for the project type and decision making context has not been explained even in the revised PDD. CAR is open
Corrective Action #2	The PDD has been suitably modified incorporating the suitability of the financial indicator to the project type and decision making context.
DOE Assessment #2	Revised PDD explains the appropriateness of the financial indicator used. CAR B8 is closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B9**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The PP is requested to substantiate the technical life time of WTGs of project activity.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The certificate from WTG manufacturer Suzlon which substantiates the technical life time of WTG is provided to DOE as Annexure 5		
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.*	A letter from Suzlon Energy Limited is submitted by PP which specify the lifetime of 1.5 MW WTGs as 20 years. Which is also cross checked with the website of Suzlon Energy Limited and hence found authenticated and acceptable to validation team. CL B9 is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly		

Project Baseline, Additionality and Monitoring Plan	**B9**
	☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B10**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Financial indicator calculation does not include salvage value and to that extent does not seem to conform to guidance 4 of Annex 58, EB 51.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Project proponent has included the salvage value in the financial analysis. Revised IRR sheet is provided to DOE.		
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.*	Though the salvage value has been provided in the financial indicator calculation, the basis for providing salvage value at 5% has not been explained in the revised PDD. CAR is open		
Corrective Action #2	Project proponent would like to clarify that a salvage value of 10% for the project has been considered. This is in line with the RERC tariff order notification dated 23rd of January 2009 which was available with the project proponent at the time of investment decision. Project proponent has included the revised salvage value in the IRR calculations. The tariff order is provided to DOE as Annexure 2.		
DOE Assessment #2	Salvage value has been provided at 10% of the windmill cost, which is in line with the RERC tariff order notification dated 2009/01/23 and hence appears reasonable. CAR B10 is closed		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Project Baseline, Additionality and Monitoring Plan	**B11**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	A consolidated CAR is raised: 1. It is observed that transmission losses have been provided at 5%. RERC order 2009/01/23 does not seem to provide for more than 1% towards transmission losses.		

Project Baseline, Additionality and Monitoring Plan	B11
	2. The cost of project is stated to be INR.59.48 mn. RERC has recommended a cost of INR 44.2 mn./MW and even the machinery supplier (Suzlon) had recommended a cost of only INR 44.7 mn./MW for wind power projects 'for the financial year 2007-08 after including inflationary increase'. In the above background, the cost of INR 59.48 mn./MW is high and does not appear to be correct and acceptable 3. Service tax has been provided at 12.36% on civil works cost also. This does not appear to be correct. This may be checked.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	1. Transmission losses has now been removed from the computation.PLF has have been considered by project proponent on the basis of PLF report prepared by a third party engineering consultant retained by the PP. The report estimates the PLF at 20.97% which was available at the time of investment decision. 2. The investment decision for the project was taken by board in board meeting on 22nd of May 2009. The decision was taken on the basis of Suzon proposal dated 16th of April 2009. As per the proposal cost per WTG is 92.5 million which works to 61.6 million /MW. The cost considered for the proposed project is 59.4 million/MW which is based on purchase orders placed by project proponent to Suzlon. Hence, the capital costs considered for the financial analysis are conservative. Copy of Equipment Supply Agreement, Civil agreement and Erection and Installation agreement with Suzlon is provided to DOE as Annexure 2, 6 and 7. However, in response to the assessment made vide CAR B12, two sets of worksheets have been presented – One based on actual cost as presented in the webhosted PDD and the other based on the offer letter conforming to Guidance 6, Annex 5, EB62. Copies of offer letter and board note are enclosed. 3. The service tax has been corrected.
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. Since the net PLF is 20.97%, which is more than the PLF recommended by RERC, PLF is accepted. Moreover PP should also furnish the actual generation by the windmills since commissioning till May 2011. CAR is open 2. The cost is based on the purchase order and is lower than the offer letter. The cost works out to INR 59.4 million/MW, which is in line with the cost of other projects. The worksheet based on offer letter duly supported by the quotations and board note have been received. This worksheet conforms to Guidance 6, Annex 5, EB 62. It appears that a purchase order was issued on 23/07/2009 and the advance given thereof is sought to be adjusted against the advance payable for this order. Clarify whether a PO was issued on 23/07/2009. The power performance curve given in the agreement pertains to Tamil Nadu project. In this context, it is observed that a sum of INR 1.428 million has been provided for pre-operative expenses. Several

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	expenses listed in the pre-operative expenses cannot be attributed to Rajasthan projects. None of the other projects validated by DOE has considered Preoperative expenses at all. Please clarify how the input parameters considered in the financial indicator calculation conforms to Guidance 6 of Annex 5, EB 62. CAR is open 3. Service tax has been corrected. CAR is closed.
Corrective Action #2	1. PP carried out the actual PLF assessment for the project based on historical energy generation records. As per the actual generation figures the plant load factor is coming out to be 18.91% which is much lower than the net PLF considered for financial analysis of the project activity. The plant load factor calculation sheet is provided to validation team as Annexure 3. 2. The PP would like to mention that only an LoI was issued with an advance of INR 1 million on 23rd July 2009 and the agreement was only executed on 8th August 2009 when the financial commitment was made. The power performance curve is machine specific and not site specific. The pre-operative expenses have been removed. Further, the project cost and Operation &Maintenance cost have been revised to offer letter basis, which was available at the time of decision making and hence conforms to Guidance 6 of Annex 5, EB 62. Insurance premium has however been reduced to INR 0.0035 million per WTG based on our experience, which is also forming part of the board note. We enclose two sets of worksheets - One with costs based on purchase order as given in webhosted PDD and the other based on the offer letter conforming to Guidance 6, Annex 5, EB 62.
DOE Assessment #2	1. Historical generation since COD has been submitted. The actual PLF achieved is lower than the PLF reckoned in the financial indicator calculation. CAR is closed 2. The explanation is accepted. The pre-operative expenses have been removed. Two sets of worksheets have been presented and the worksheet based on the offer letter should form the basis for additionality demonstration in the PDD. Offer letter has been received. The revised insurance premium is accepted. CAR is closed. 3. CAR was already closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B12**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Clarify the reasons for not capitalizing the cost of Blades, Tubular Tower and Erection & Commissioning charges with wind turbine. 2. Tariff has been considered at INR 3.48/kWh increased by 2 paise upto 11 years and by 1 paise thereafter. The tariff for wind power projects commissioned in 2009-10 seems to be different. Clarify the basis for considering the tariff of INR 3.48/kWh. 3. It is observed that the project is fully funded by equity. If this is correct, a declaration duly signed by the project developer may be furnished to this effect		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	1. The cost of Blades, Tubular Tower and Erection & Commissioning charges with wind turbine has been capitalized. Please refer to the Payment Schedule Tab of IRR sheet. 2. The investment decision for the project was taken by GFL board on 22nd of May 2009. Hence, in line with Paragraph 6 of Guidelines on assessment of investment analysis, Version 3.1 which states that '*Input values used in all investment analysis should be valid and applicable at the time of the investment decision taken by the project participant*', all the input values and parameters considered to demonstrate additionality are the same which were available with the GFL board at the time of taking investment decision for the project. At the time of investment decision, wind tariff for the state of Rajasthan was governed by RERC Tariff Order dated 2009/01/23. As per *Schedule A: Tariff for wind projects of the tariff order*, the tariff for the wind projects is 3.48 INR./unit with an escalation of 0.02 paise per unit per annum for first 12 years and 0.01 paise per unit for the next 8 years. The same is considered for the investment analysis of the project activity. The RERC tariff order can be accessed at http://www.rerc.gov.in/Order/JS_(PO)_Order_RE_Tariff_15.03.07.pdf 3. The project is indeed fully funded by equity. A declaration for the same is provided to DOE as Annexure 9 as evidence.		
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. The response does not answer the CL. CL is open 2. Please clarify whether the project is eligible for the tariff of INR 4.28/kWh or not. If yes, a separate worksheet is missing based on the tariff of INR 4.28/kWh. CL is open 3. Declaration is not found. CAR is open.		
Corrective Action #2	1. The cost of Blades, Tubular Tower and Erection & Commissioning charges with wind turbine has been capitalized 2. The investment decision for the project was taken by GFL board on 22nd of May 2009. Hence, in line with annex 5, EB 61, all the input values and parameters considered to demonstrate additionality are the same which were available with the GFL board at the time of taking investment decision for the project. Hence, tariff for INR 4.28/kWh is		

Project Baseline, Additionality and Monitoring Plan	**B12**
	not appropriate for the project activity. However, the worksheet contains a facility to check the IRR with the applicable tariff 3. It has been sent again.
DOE Assessment #2	1. Capitalisation does not appear to be correct. CL is open 2. As per paragraph 95 of the VVM, DOE is required to use its sectoral and local expertise and financial knowledge while validating the projects and as per paragraph 31 of VVM, DOE should not omit any evidence that is likely to affect validation opinion. Since DOE is aware of the revised tariff, which the project is entitled to, it cannot overlook the revised tariff. Hence, this CAR was raised. Now that the PP has submitted the revised worksheet which facilitates computing IRR with revised tariff, the CL is closed. 3. Declaration has been received and as checked by validation team the same is found to be appropriate. CAR is closed.
Corrective Action #3	1. The capitalization has been revised and is now in compliance with applicable regulations. 2. CL point is already closed. 3. The mistake has been rectified in the Assumptions sheet.
DOE Assessment #3	1. Since the capitalisation has been corrected in the revised worksheet, CL is closed. 2. CL was already closed. 3. CL was already closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B13**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	PP is requested to justify the PLF value against the requirement of EB 48 annex 11 in the section B.5 of the webhosted PDD.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Para 3(a) of Annex 11 of EB 48: Guidelines for the reporting and validation of plant load factor Version 1, states that the plant load factor shall be defined ex-ante in the CDM-PDD as 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		

Project Baseline, Additionality and Monitoring Plan	**B13**
	approval. b. The plant load factor determined by a third party contracted by the project participants The project is fully funded from project proponent's equity and involves no outside debt or equity finance. Hence, the plant load factor considered is based on the third part assessment report. Hence, PLF considered is in accordance with the PLF guidelines. Third party assessment report as Annexure 10 is provided to DOE.
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.*	Submitted Annexure 10 is not getting opened. CAR B13 is open.
Corrective Action #2	Annexure 10 is re submitted to DOE
DOE Assessment #2	Submitted third party assessment and provided justification is found acceptable to validation team as they fulfil the requirement of guidelines for reporting and validation of PLF. Hence CAR B13 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B14**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Section B.5 does not explain how the expected return on equity chosen as benchmark confirms to guidance 12 and 13 of annex 58, EB 51. Since the calculations supporting the benchmark have not been furnished, comments on the benchmark are reserved.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Guidance 16 of Annex 58, EB 51 states that "If the alternative to the project activity is the supply of electricity from a grid this is not to be considered an investment and a benchmark approach is considered appropriate". Since, the project activity supplies electricity to grid, hence in accordance with the guidelines, benchmark analysis has been used for demonstrating investment barrier for the project activity. The project is entirely funded by project proponent's equity and involves no rising of debt. Hence, equity IRR has been used to determine financial returns from the project. Hence, the Equity IRR was found to be the most appropriate financial indicator for feasibility analysis of this project activity. Paragraph 12 of Guidelines on investment analysis Version 3.1, Annex 58 EB 51 states that 'In cases where a benchmark approach is used the applied benchmark shall be appropriate to the type of IRR calculated.		

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	Required/expected returns on equity are appropriate benchmarks for an equity IRR. Hence, Capital Asset Pricing Model (CAPM) has been used to determine benchmark for the project. The same has been revised in the PDD. The benchmark calculations have been provided to DOE
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 explains the appropriateness of using WACC as benchmark and its conformity to Guidance 12 of Annex 58, EB 51. However, on WACC, validation team has following issues: a) RoE of 17.84% is very high compared to RoE recommended by RERC and by EB in its 61st meeting and hence it is not acceptable b) PP should furnish the market return based on SENSEX also c) Several figures given in 'beta' worksheet and the formula used to compute stock returns in almost all cases are not correct d) Risk free return figure is not found in the website given and moreover, this publication could not have been available to PP at the time of decision making. e) Beta has been computed for duration of 4.16 years except in the case of GVK Infra, which is for 3.16 years. There is no explanation in PDD on whether any standard text book recommend the consideration of the duration of 4.16 years and combining beta computed for different periods f) All power generating companies listed in BSE are not included and no explanation has been given for their omission. g) PP is also requested to furnish ROE computation with sensex as independent variable. CAR is open
Corrective Action #2	a) The benchmark for the project is calculated using Capital Asset pricing model using nationally available data which was applicable at the time of investment decision by project proponent. Project proponent would like to clarify that it has revised the ROE as per the suggestions made by DOE and the revised ROE is coming out to be 13.33%.The same is included in the revised PDD. b) PP calculated the market return using SENSEX as well. Market return using benchmark is coming out to be 14.05% using SENSEX. The excel sheet has been provided to the DOE as Annexure 4. c) Project proponent would like to clarify that the figures and formulas used in computation of beta has been revised as per comments made by DOE. d) Risk free return is revised. The risk free rate is taken as the weighted

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	average return on government securities in 2008-09. The report can be assessed at: http://rbidocs.rbi.org.in/rdocs/AnnualReport/PDFs/58APTB_09.pdf e) The PP would like to submit that Electricity Act 2003 implemented by government of India in 2003, changed the entire regulatory environment for power companies in India hence drastically changing the business scenario for the Indian power generating sector. After the release of the Electricity Act, the investment climate for the private sector in India changed and resulted in a shift in the private sector participation in the power sector in India. The impact of the EA 2003 has been described as 'EA 2003 will herald a new era for the power sector in India.' Also impact on private sector IPP can be seen from the following article discussing the impact of EA 2003: Page 4 http://www.crisil.com/youngthoughtleader/winners/07-Grover-NM.PDF Electricity act 2003 was implemented in June 2003, hence, beta for power companies from July 2003 onwards had been considered for the project activity. NTPC (November 2004), Torrent Power (November 2006) and GVK infra (February 2006) were listed at the stock exchange post July 2003, hence beta for these companies has been computed from their respective listing dates. f) Project proponent would like to clarify that all the major power companies operating in India have been included in benchmark calculations. Project proponent has included following power companies: • BFUL • Tata power • CESC Limited • GVK Infra • Neyveli Lignite • GIPCL • Reliance infra • NTPC • Torrent power g) PP has calculated the benchmark using SENSEX as well. ROE is coming out to be 14.05% using SENSEX. The calculation excel sheet has been provided to the DOE. The excel sheet is submitted to DOE as Annexure 4.
DOE Assessment #2	The observations on the response are as follows: a) Since the revised return on investment is less than the RERC recommended RoE, it is accepted. CAR is closed. b) Benchmark with stock returns regressed on Sensex has been submitted. The calculation suffers from mistakes. CAR is open.

Project Baseline, Additionality and Monitoring Plan	**B14**
	c) Mistakes in the input parameters have been corrected. However, a few errors are identified in the data used for unlevering the beta. Besides, as observed earlier, RoE computed with Sensex also suffers from mistakes.. CAR is open. d) The source for risk free return has been revised. The data has been sourced from Annual Report of RBI for the year 2008-09. Investment decision for this project was taken in May 2009. Clarify whether this publication would have been available at the time of decision making. CAR is open. e) The explanation is neither satisfactory nor convincing. No reference from a standard text book has been given advocating the use of different duration for computing beta and combining such beta to arrive at industry beta. CAR is open. f) All the required of the companies have been included. CAR is closed. g) This is a repetition of (b) above and the error is regretted. This CAR may be ignored.
Corrective Action #3	a) CAR is closed. b) Benchmark has been revised with stock returns being regressed against BSE Sensex and BSE 500 indices. The conservative value from the analysis has been considered as market rate of return for CAPM. c) The mistakes in the calculation of unlevered beta have been corrected. d) The source for risk free return has been revised and has been sourced from the Reserve Bank of India Bulletin, April 2009. Project proponent would like to clarify that this publication was available at the time of investment decision. e) Project Proponent would like to clarify that beta for power producing companies has been calculated for fixed time period of 5, 4, 3, 2, and 1 years span and the most conservative value has been considered for calculation of Return on Equity. f) CAR is closed.
DOE Assessment #3	a) CAR was already closed. b) Conservative beta obtained by regressing the stock return on BSE Sensex and BSE 500 has been considered. CAR is closed. c) Mistakes in the calculation have been corrected. CAR is closed. d) Risk free return has been computed as the average of 4 month YTM, as recommended by CRISIL Report. CAR is closed. e) Beta has been computed for various duration and the conservative of them has been considered. CAR is closed. f) CAR was already closed.

Project Baseline, Additionality and Monitoring Plan	**B14**
	CAR B14 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B15**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Common practice analysis does not seem to conform to step 4 of additionality tool. PP is requested to check the conformity of requirements of additionality tool and revise the explanation accordingly.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Since, the proposed project activity is a small scale project, thus it uses Attachment A to Appendix B for demonstrating additionality. Investment barrier of the appendix has been used to demonstrate additionality. As per the Attachment A to Appendix B, common practice analysis is not required for demonstrating additionality. Hence, the same is not employed by project proponent to demonstrate additionality for 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 DOE assessments (#2, #3, etc.) shall be added.*	Common practice analysis was not mandatory when project was a small scale project, but subsequently PP has applied CDM methodology ACM0002 to the project and PDD was again uploaded to UNFCCC website for GSP hence CAR B15 is still open.		
Corrective Action #2	Project proponent would like to clarify that the project is indeed a large scale project activity. Project proponent would like to apologise for the mistake made by project proponent on its part. Revised Common practice analysis has been included in the Section B.5 of the PDD.		
DOE Assessment #2	Explanation is accepted. In this context, following observations are made a) Common practice analysis does not explain the reasons for defining the geographical area as Rajasthan. b) Restricting the projects considered for common practice analysis to 5 MW to 15 MW is not appropriate. c) From the information given it appears that all the projects in Rajasthan are CDM projects, which is not true. PP may submit either soft copy or photocopies of all pages of Indian Wind Power 2010 containing all wind power projects in Rajasthan. d) PP should list all wind power projects in Rajasthan and then eliminate		

Project Baseline, Additionality and Monitoring Plan	**B15**
	them based on the criteria given in Step 4 of Additionality Tool. CAR is open
Corrective Action #3	The PP would like to clarify that the common practise of the project has been revised in line with Additionality Tool (Version 06). a) The common practise now considers host country – wide boundary b) Common practise is revised and considers a range of 5.25 MW to 15.75 MW in line with Paragraph 47 of Additionality Tool (Version 06) c) The common practise now considers host country – wide boundary and photocopies of the Wind Power Directory have been submitted to DOE. d) The common practise now considers host country – wide boundary
DOE Assessment #3	Common practice analysis now conforms to step 2 of para 47 of Additionality Tool "Demonstration and assessment of additionality" version 06.0.0, as now the applicable geographical region has been chosen as the host country India and all the analysis has also been done accordingly. Also the applicable project range now has been chosen correctly as 5.75 MW to 15.75 MW. Thus, Common practice analysis is in conformity with Additionality Tool EB 65 annex 21. However, during the course of validation new guideline of common practice analysis EB 69 Annex 8 has come into effect, so updation required. CAR is open.
Corrective Action #4	Common practice analysis has been updated as per EB 69 Annex 8.
DOE Assessment #4	Common practice analysis has been done as per EB 69 Annex 8 and now N_{diff} has been calculated on following basis: according to Size of installation, Investment climate on the date of the investment decision. Common practice analysis sheet has been checked and found appropriate. CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B16**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	The accuracy class of the meters and monitoring frequency are not mentioned in the section B.7.1 of the webhosted PDD. PP is requested to mention the same along with data archiving procedure.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the cor-*	The accuracy class of the meters and monitoring frequency has been mentioned in the Section B.7.1 of the revised PDD.		

Project Baseline, Additionality and Monitoring Plan	**B16**
rective action taken in details.	
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.*	Monitoring frequency of the parameters is still missing in the revised PDD hence CAR B16 is open.
Corrective Action #2	The monitoring frequency of all the parameters are included in Section B.7.1 of the PDD.
DOE Assessment #2	VT checked and found that the accuracy class of the meters and monitoring frequency of all parameters are now appropriately mentioned under section B.7.1 of the revised PDD; hence CAR B16 is successfully closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B17**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. As evidenced during site visit, monitoring plan as described in the section B.7 of PDD is not in line with the actual monitoring practice. Correction in the monitoring plan is needed accordingly. 2. Moreover during the site visit, it was found that the power generated from the WTGs is being fed to grid using a step up transformer (690/33 KV), which is not identical with the webhosted PDD.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The monitoring plan of the PDD has been revised and now in line with the actual monitoring practice employed at the site.		
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. Monitoring parameter tables under section B.7.1 are not completely filled. 2. PP has not provided any corrective action for second CAR point. CAR B17 is open.		
Corrective Action #2	1. Project proponent would like to clarify that the monitoring parameter tables in Section B.7.1 have been completely filled. 2. Project proponent would like to clarify that the power generated from the WTGs is generated at 690 V and is being fed to grid using a step up transformer (690/33 KV). The same is included in the revised PDD.		
DOE Assessment #2	1. VT checked the revised PDD and found that the apportioning		

Project Baseline, Additionality and Monitoring Plan	**B17**
	procedure for shared meters has to be documented either in B.7.2 or in annex for $EG_{y,\ net\ feeder\ 1,Export}$, $EG_{y,\ net\ feeder1,\ Import}$. Also QA/QC procedures are mentioned for all the parameters as same i.e, calibration irrespective whether the parameters are calculated or measured which is not correct. Appropriate QA/QC need to be identified for the parameters. The calibration frequency is not defined 2. The value on which power generated from the WTGs is being fed to grid using a step up transformer is also corrected by PP under the section "Technology to be employed by the project activity" of the revised PDD.
Corrective Action #3	1. The apportioning procedure has been described by example in Annex 4 of the revised PDD. QA/QC procedures have been corrected in section B.7.1 of the revised PDD. Net electricity supplied to the grid would be cross-checked against invoices for sale of electricity. The calibration frequency has been mentioned in section B.7.1 of the revised PDD. 2. Already closed.
DOE Assessment #3	1. VT has checked the revised PDD and found that now the apportioning procedure for shared meters has been correctly described in annex 4 of the PDD. Now, QA/QC procedures for all the parameters have been revised appropriately. The calibration frequency has also been defined appropriately in the revised PDD. 2. CAR already closed. CAR B17 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B18**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	No. of CERs in the IRR sheet are not matching with the webhosted PDD and the emission reduction calculation spread sheet.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The PP would like to clarify that the estimated quantum of CER for the project are based on the generation estimated by the third party consultant report dated 06/05/2009 for the project. The annual quantum represented in the webhosted PDD was 17,791 tCO2 while the revised ER sheet shows 17,790. The difference in the two was due to a rounding off error. Further, the quantum in revised ER sheet is more conservative than the figure in webhosted PDD and matches with generation figure (19,285,070		

Project Baseline, Additionality and Monitoring Plan	**B18**
	kWh/annum) provided in the PLF report. The same has also been incorporated in the revised PDD, IRR and ER sheet which are being submitted with the responses.
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 checked the revised PDD and found that the no. of CERs are now revised and matching with the emission reduction calculation spread sheet. However, the CERs figure is not rounded down. CAR is open.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The CERs figure is now rounded down.
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 checked the revised PDD and found that the no. of CERs are now rounded down and matching with the emission reduction calculation spread sheet.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Project Baseline, Additionality and Monitoring Plan	**B19**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Version of the applied methodology in the webhosted PDD is not latest as per UNFCCC website. As per EB 67 annex 13, version 13.0.0 of ACM0002 is the latest version which is available on UNFCCC. Also “Tool to calculate the emission factor for an electricity system” and “Tool for the demonstration and assessment of additionality version 5.2” need to be updated.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The version of the applied methodology ACM 0002 has been revised to version 13.0.0 in the PDD. Applied Tools have also been updated..The revised PDD is attached with the responses.		
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 checked the revised PDD and found that the version of methodology ACM0002 is revised from 12.0.0 to 13.0.0 throughout the PDD and all corresponding changes are also done by PP. Applied tools have also been updated. The project is in compliance to all the stipulated requirements w.r.t. applicability, baseline, additionality and monitoring. CAR B19 is successfully closed.		

Project Baseline, Additionality and Monitoring Plan	**B19**
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Finding	**C1**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Crediting period start date to is not a reasonable date.		
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 01.01.2013 and is incorporated in Section C.2 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 start date of crediting period is revised to 01/01/2013 in revised PDD, which is acceptable. CAR C1 is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Finding	**E1**		
Stakeholder Comments	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Relevant stakeholder groups (local villagers, Local Government authorities) have been consulted/LSC/ prior to publication of PDD for GSP. However, The description given in section E.1 and E.2 of the webhosted PDD is not filled up as per the CDM filling guidelines i.e. How and when the invitations are sent/published is missing from section E.1. Identified relevant stakeholder is missing from section E.1. Identification of stakeholders that have made comments is missing in section E.2. Also, PP is requested to submit the newspaper article which was published to invite the stakeholders for the stakeholders meeting along with MoM and attendance sheet of the meeting held on 2010-03-16.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	The newspaper advertisement published in Dainik Bhaskar newspaper is provided to DOE as Annexure 11 as evidence.		
DOE Assessment #1	Section E.1 and E.2 of the revised PDD are still not filled up as per the		

Finding	E1
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.	PDD filling guidelines. Also, Validation team checked the annexure 11 as evidence and found that it contains only the newspaper article which was published to invite the stakeholders for the stakeholders meeting and not the MoM and attendance sheet. CL E1 is open.
Corrective Action #2	The CDM guidelines have been followed in section E.1 and E.2 of the revised PDD. It has been clarified that GFL had invited stakeholders through newspaper advertisement on 3rd March 2010. It has been clarified that the meeting was attended by representatives of neigh-boring villages and representatives of the Suzlon group. Also reference to the attendance list has been made. In section E.2, stakeholders that have made comments have been identified. Minutes of meeting and attendance sheet for the stakeholder consultation is submitted to DOE as annexure 20.1 and 20.2 respectively.
DOE Assessment #2	VT has checked the revised PDD and found that now section E.1 and E.2 of the PDD has been filled up appropriately as per the CDM-PDD filling guidelines. Also, VT has checked the submitted newspaper article which was published in Dainik Bhaskar newspaper to inform local people about the local stakeholders meeting on 2010-03-16 also submitted minutes of and meeting and attendance sheet for the stakeholders meeting were checked. All the documents were found acceptable and authentic to validation team and hence accepted and CL E1 is successfully closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Stakeholder Comments	E2		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	A consolidated CAR was raised on first PDD which during the global stakeholder process by Mr. Babloo Singh: It is a well known fact that the wind projects are mainly installed considering CDM revenues and offsetting of tax liability of the company as a result of accelerated depreciation of 80%. PPs cleverly do not consider the accounting tax offsetting in their companies while calculating the IRR. This is evident from the recently registered projects and those requesting registration. The DOE is therefore requested to critically analyze how the accelerated depreciation benefit has been taken into account and confirm the accounting of the cash inflows as a result of the negative tax liability in the initial years. DOE should not be misguided by the financial presented by the PP or consultant which are custom made for CDM purposes and not the actual financial considered at the investment decision. Note that considering cash inflows results in an increase in the IRR making wind projects a profitable venture.		

Stakeholder Comments	**E2**
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details.*	Project proponent will like to clarify that the depreciation benefits in the Wind power project have been considered by the PP and the same has been included in the IRR sheet. Despite considering depreciation benefits, project is financially unviable and faces investment barrier as demonstrated in Section B.4 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.*	a) Financial indicator calculations take into consideration tax saving. b) Tax shield enjoyed by the company has been reckoned in the financial indicator calculation c) DOE has verified and confirms that the cash flow takes into account the tax shield arising on account of accelerated depreciation d) That the cash inflows result in increase in the IRR is evidenced by the financial indicator calculation enclosed. CAR is closed. Moreover no comments were received during the global stakeholder process during the re-webhosting period of the PDD.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Participation

LOA

India as a non Annex I party meets all relevant participation requirements. In the Host Country Approval/HCA/ ref no. 4/15/2010-CCC dated 2010-12-22, the Indian DNA, National CDM Authority under Ministry of Environment & Forests confirmed the voluntary participation of Gujarat Fluorochemicals Limited as project participant in the CDM project activity.

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

This type of project activity is in line with sustainable development policies/HCA/ of the host country and national regulation and policy on Environmental Protection. A scanned copy of the original HCA was submitted by the project participant to the DOE during the validation and the same was verified stating precisely same project title as in the final PDD/PDD2/ which is submitted for request for registration. Nevertheless in the Host Country Approval, National CDM Authority confirms that:

- The government of India has ratified the Kyoto Protocol in August 2002.
- This is approval of voluntary participation in the proposed CDM Project activity.
- The project contributes to Sustainable development in India.

It is also stated in the HCA that the project participant (PP) has to comply with the following conditions:

- Gujarat Fluorochemicals Limited shall not sell the CERs to any agency/ company/ organization which purchase the CERs using ODA Funds.
- Gujarat Fluorochemicals Limited 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
- Gujarat Fluorochemicals Limited shall furnish expeditiously any information, during the lifetime of the project as requested by the National CDM Authority.
- Gujarat Fluorochemicals Limited shall obtain all statutory clearances and other approvals as required from the competent authorities for setting up of the project
- All transaction shall be subject to supervision of the Executive Board of the CDM, under the authority and guidance of the COP/MOP

- This approval is not transferable. The authority reserves the right to revoke this Host Country Approval if the conditions stipulated in this approval are not complied with to the satisfaction of the National CDM Authority.
  CL A1 was raised during the course of validation and subsequently closed out.

Project Participants

India as a non Annex I party meets all relevant participation requirements. In the Host Country Approval[/HCA/] ref. no. 4/15/2010-CCC dated 2010-12-22, the Indian DNA, National CDM Authority under Ministry of Environment & Forests confirmed the voluntary participation of Gujarat Fluorochemicals Limited as project participant in the CDM project activity.

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

5.1.2 Contribution to Sustainable Development

The issued host country approval[/HCA/] ref. no. 4/15/2010-CCC dated 2010-12-22, confirms the contribution to sustainable development of India from the proposed project activity.

5.1.3 PDD editorial Aspects

The proposed project activity has been described in latest PDD template (CDM PDD ver 03) according to the CDM-PDD filling guideline version 07 (Annex 09, EB 34).

CAR A2 was raised during the course of validation and subsequently closed out.

5.1.4 Technology to be employed

The project is an installation and operation of 7 numbers of Wind Turbine Generators (WTGs), with each WTG having a capacity of 1500 kW. In the PDD section A.2 and A.4.3, technical aspects of the proposed project activity are clearly and transparently described. The description is found to be in accordance with the latest PDD guidelines[/CDM-PDD/] and found to be complete and accurate. It is confirmed during the site visit that the description provided is correct and is in line with the actual conditions on the project site. There is no technology transfer involved in the proposed project activity. Moreover, the employed technology is harnessing energy from renewable sources of energy, i.e. kinetic energy of wind is being used for electricity generation, and hence the technology employed is environmentally safe and sound.

CL A3 was raised and subsequently closed out during the course of validation.

5.1.5 Small Scale Projects

The project activity involves generation of electricity from the renewable wind energy. The capacity of the project activity is 10.5 MW which is less than 15 MW limit. Further, the project proponent has already a registered 23.1 MW wind project (UN Ref No. – 1615) in the same project boundary. Thus, this project activity is considered as a de-bundled component of the previous large scale project activity. This project activity satisfies all the criteria mentioned in para 2 of Annex 13 of EB 54, "*Guidelines on Assessment of De-bundling For SSC Project Activities".* Hence, project proponent has appropriately considered under large scale project activity and applied ACM0002 version 13.0.0.

5.2 Project Baseline, Additionality and Monitoring Plan

5.2.1 Application of the Methodology

The selected baseline methodology is the approved baseline methodology "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (ACM0002 version 13.0.0), available on UNFCCC web site. The applied methodology is valid since 2012-05-11. The PDD for this project activity was webhosted[3] on UNFCCC website on 2010-09-17 with methodology AMS I.D. version 16 in small scale project category. However, PDD for the same project activity was re-webhosted[4] on UNFCCC website with methodology ACM 0002 version 12. The project activity was re-webhosted with large scale methodology because the project proponent had already registered wind project of 23.1 MW wind project (UN Ref No. – 1615) in the same project boundary and PP decided to re-webhost the PDD.

The selected baseline methodology, i.e., ACM0002 is correctly applied to this type of wind project. All the applicability criterion of applied methodology is appropriately justified in section B.2 of the PDD. Site visit for the project activity was conducted on AMS I.D. However, as assessed by the DOE during site visit and also by desk review of technical design of project, there is no other significant emissions involved with the proposed project activity except listed in the applied methodology ACM 0002 version 13.0.0.

5.2.2 Project Boundary

ACM0002 specifies that *"The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to".* 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 grid.

[3] http://cdm.unfccc.int/Projects/Validation/DB/VHDRYMCF5JJPWLJUFMEN6NX8KPEM0F/view.html
[4] http://cdm.unfccc.int/Projects/Validation/DB/733MPK9Z4MDQU6FP722KC740A59JGG/view.html

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. Carbon dioxide is the only gas taken into account for the baseline emission which complies with the applied methodology and also it is conservative. There are no other sources affected by the project. Project boundary description complies with the requirement. CAR B1 was raised and successfully closed.

5.2.3 Baseline Identification

The selected baseline methodology is the approved baseline methodology "consolidated baseline methodology for grid-connected electricity generation from renewable sources" (ACM0002 version 13.0.0).

The selected baseline methodology, i.e., ACM0002 is correctly applied to this type of wind project. The baseline scenario under the adopted methodology ACM0002 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".*

Baseline emissions include only CO2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.

The baseline emissions are calculated by multiplying the combined margin CO2 emission factor, and quantity of net electricity generation that is produced and fed into the NEWNE grid. Combined margin CO2 emission factor is obtained from the combination of operating margin (OM) and build margin (BM) factors. In this case the Combined Margin (weighted average of Simple Operating Margin and Build Margin) is estimated based on three years generation weighted average (05-06, 06-07, 07-08) of Simple Operating Margin and Build Margin of current year (08-09) in line with steps of tool to calculate the emission factor for an electricity system (ver. 02.2.1). Both the value of Simple Operating Margin and Build Margin are selected under ex-ante approach. The grid boundary w.r.t the connected state grid is northern Regional Grid of India.

GFL has selected simple OM emission factor calculation as the share of low cost/ must run resources of the selected grid over the three most recent years (06-07, 07-08, 08-09) is < 50% of the total grid generation[/cea/].

In accordance with tool to calculate emission factor for an electricity system, version 02 (EB 50 Annex 14), weight factors of w_{OM} = 0.75 and w_{BM} = 0.25 has been used and the resultant grid emission factor (EFy) works out as 0.9225 tCO2/MWh. The calculation of EFy is publicly available and published by the Central Electricity Authority on its web-site[/CEA/]. The validation team is convinced of the result of the

emission coefficient calculation/XLS/. Hence, the applicable baseline is the electricity produced by the renewable generating unit multiplied by an emission coefficient (measured in tCO2e/MWh) calculated in a transparent and conservative manner.

Relevant national & sectoral policies viz National Electricity policy 2005 and energy policy of the Government of India have been considered. The project is also in line with New Renewable Energy Policies.

It can be concluded that the chosen baseline scenario is plausible, conservative and in accordance with the applied methodology.

5.2.4 Calculation of GHG Emission Reductions

VT has checked the emission reduction calculation and found that calculation is in line with the applied methodology and same has been provided appropriately in the PDD. The project intends to reduce carbon dioxide (CO2) emissions by generating electricity from a renewable energy wind project, which would be exported to the NEWNE grid.

There are no GHG emissions arising from the project being a wind project. Hence, the project emissions are zero. As per the methodology ACM0002 version 13.0.0, there are no emissions related to leakage in this project.

The calculation approach and calculation of the baseline emission and emission reduction provided in section B.6.3 of PDD is correct and same is found to be as per the applied methodology.

Acc. to the final PDD the project is expected to reduce emissions of 124,529 tCO2e over a 7 year renewable crediting period. The DOE has assessed the emission reduction calculation sheet/xls2/ and parameters used therein, and found that estimated emission reductions are according to the applied methodology and tool to calculate emission factor for an electricity system and thus concluded them plausible and conservative for the proposed project activity.

5.2.5 Additionality Determination

The project involves installation of 7 WTGs of 1.5 MW each of Suzlon make at Jodhpur District of Rajathan by Gujarat Fluorocarbon Ltd. (GFL) and exporting the entire power generated to grid.

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

The start date is given as 2009/08/08; the date on which GFL signed the Equipment Supply Agreement with M/s. Suzlon Energy Ltd. Copy of the Agreement has been

verified. As this document signifies the financial commitment of the PP, considering this as the start date is in accordance with the CDM glossary of terms.
Thus, as per 'Glossary of CDM terms (Version 06)', earliest real action for this project activity was taken on 2009/08/08. 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 100,101 of EB 55 Annex 1 and Annex 13 EB 62.
Hence, the Project participant has informed UNFCCC and DNA on 2009/10/23 (F-CDM-Prior Consideration), which is less than 6 months from the start date of the project (2009/08/08). Hence, the project is in conformity with Annex 13 of EB 62.

The UNFCCC has webhosted the same prior CDM consideration on its website (http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html).
This notification was submitted to UNFCCC within six month of the start date of project activity as required vide EB 55 Annex 1, §§ 99–101and paragraphs 2,3,4,5 of Annex 13, EB 62.

Application of methodology / methodological tools

Though the installed capacity of the project is only 10.5 MW, as the PP already has a wind energy project of 12 MW in the same location, PP has applied approved methodology ACM0002 (version 13.0.0) and demonstrated additionality based on Additionality Tool (Ver 06) and "Tool to calculate the emission factor for an electricity system" version 02.2.1. The methodology and tools applied are, therefore, correct and appropriate

Further, the additionality of the project activity has been demonstrated using guidance given vide Annex 05 of EB 62. As all requirements specified vide § 28 of the simplified modalities and procedures are complied with by the project activity, this approach has been assessed to be appropriate for the additionality assessment for this project activity.

In the above background Validation Team concludes that the additionality justification given by the project developer is in accordance with the requirements derived from the approved CDM methodology and the methodological tools referred therein and also conforms to guidance given by EB vide paragraph 110 of VVM (Ver 1.2).

Alternatives this is a grid connected wind energy generation project, PP has developed the project based on the Methodology ACM0002 Ver. 13.0.0. 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 EB 55 Annex 1, §§ 105–107, "*The PDD shall identify credible alternatives to the project activity in order to determine the most realistic baseline scenario, unless the approved methodology that is selected by the proposed CDM project activity prescribes the baseline scenario and no further analysis is required.".*
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 conforms to the guidance given by EB 55 Annex 1, §§ 67(b), 81–87 for the selection of baseline scenario.

Investment analysis

Benchmark analysis has been chosen to demonstrate the additionality of the project, which is in conformity with guidance 19 of Annex 5, EB 62 and project IRR has been selected as financial indicator (as the project is financed 100% by equity, the equity IRR and project IRR are the same in this instant case). Project IRR is one of the financial indicators recommended by Additionality Tool. Therefore, the financial indicator is considered appropriate for the project type and decision making context.

As the project is financed entirely by equity, in accordance with guidance 12 of Annex 5, EB 62, project developer has required/expected return on equity as benchmark. The benchmark works out to 13.51%. PDD explains in details the sources of data and the methodology adopted and the worksheet provides the calculation. Validation team checked the data and found that the data used are from reliable and credible sources, methodology adopted is correct and the calculations are in order. The benchmark chosen is suitable for the type of financial indicator selected, and is in conformity with the Additionality Tool and guidance 112 (a) of VVM (ver.1.2).The benchmark works out to 13.51%, which is lower than the benchmark given in the web hosted PDD (16.88%). The benchmark has been applied as CAPM as the project is funded by 100% equity.

For the computation of CAPM, risk free rates are based on yield of government bond rates (Central Government Securities) with term to maturity of 20-year, which is aligned to project activity lifetime of 20 years. The latest data available for the four months prior to the investment decision (up to February 2009).

The base year for BSE Sensex is 1979, and BSE Sensex reflects the longest available time period from date of investment decision (more than 20 years). BSE Sensex also contains sufficient number of power sector industries. To align the market return with the operational lifetime of the project (20 years) BSE Sensex Market Return have been considered. The data has been considered from April 1979 to April 2009 (prior to investment decision).

Beta values have been evaluated for a number of different vintages prior to the investment decision. The five year beta, four year beta, three year beta two year beta and one year beta has been evaluated. Of these, the minimum beta value (corresponding to the one year period prior to investment decision – Mar 2008 to April 2009) has been applied.

Hence CAPM have been computed from BSE Sensex and works out to 16.04%.However, the benchmark was also evaluated from BSE 500, which works out to be 13.51%, which is lower than the benchmark based on BSE Sensex. This is aligned with the operation lifetime of the project activity, and also considers the latest data available at the time of investment decision for all parameters.
Benchmark calculation has been checked and found conservatively calculated and hence validation team has accepted the benchmark as 13.51%. Therefore, it can be concluded that the benchmark (required return on equity) is conservative and consistent with the investment horizon;

The project proponent has demonstrated that the project is not economically or financially feasible without the revenue from the sale of CERs, signifying that the project is additional. Considering the fact that the IRR breaches the benchmark when the CDM benefits are reckoned (together with the actual project cost, O&M cost and applicable tariff), validation team is convinced that investment would not have been made at a return less than the benchmark. Therefore the benchmark conforms to paragraph 112 (a), (b) and (c) of the VVM (Ver. 1.2)

Financial indicator calculation is based on the offers received from Suzlon Energy limited, PLF assessment report and RERC tariff order - all of which were available at the time of decision making. Copies of all the documents have been submitted to DOE. Validation team checked the values with the documents furnished by PP and also those publicly available. The input parameters used, basis thereof and appropriateness of the input parameters used are given in Annex 3 [in conformity with the requirement of paragraphs 92, 93, 95 and 97 of VVM (ver.1.2)]. CARs/CLs have been raised on non-conformities and errors and they have been duly corrected. After closure of all CARs/CLs, validation team arrived at the conclusion that the assumptions and computations in the IRR spreadsheet are in conformity with guidance 6 of Annex 5, EB 62 read with paragraphs 111 of VVM (ver 1.2).

The financial indicator – project IRR works out to 5 .62%, signifying the additionality of the project[5]. Select input parameters, viz., generation, O&M cost, tariff and capital cost have been subjected to variation of ± 10% in conformity with guidance 20 and 21 of Annex 5, EB 62 and the results are given below

Parameters	-10%	Baseline	+10%
Generation	3.51%	5.62%	7.57%
O&M	6.13%	5.62%	5.09%
Tariff	3.68%	5.62%	7.42%
Capital Cost	7.57%	5.62%	4.09%

[5] Since in the webhosted PDD, project developer had used the actual project and O&M cost for additionality demonstration, a separate worksheet has been submitted based on actual project and O&M cost. Even if the actual project cost, O&M cost and applicable tariff is used, the project IRR goes upto 11.15% (benchmark being 13.51%) and the project remains additional. Financial indicator calculation based on actual project cost and O&M cost is also enclosed

The analysis and the results reveal that the financial indicator does not equal the benchmark even when the critical parameters are subjected to reasonable variation. Project developer has also furnished the impact on IRR if the applicable tariff is used instead of the tariff available at the time of decision making. The IRR goes up to 9.17% if the applicable tariff is used and the project continues to remain additional.

Further analysis reveals that for the financial indicator to equal the benchmark, when

Parameter	Increase (%)
Generation goes up by	43.85%
Tariff goes up by	48.25%
Capital cost comes down by	29.30%

An increased in the PLF by 43.85% will translate to WTGs achieving PLF of more than 30.2% on a sustained basis for 20 years. No windmill in Rajasthan is reported to have achieved this PLF (Refer the assessment in Annex 3). The average PLF achieved by the project since inception is less than even 20% Therefore, the possibility of achieving PLF of 30% on sustained basis for 20 years is ruled out. The difference in the cost considered in the financial indicator calculation and the actual cost is only about 5%, while the project cost is required to come down by 29% to render the project non-additional. Tariff is governed by RERC tariff order and PPA, which fixes the tariff for 20 years. However, the applicable tariff to the project is INR 4.28/kWh. PDD and the worksheet demonstrate that even if the applicable tariff is taken into account together with actual project (5.2% less than the project cost) and O&M cost (INR 1.4 million / WTG), the IRR goes up to 10.87% only (the benchmark being 13.51%). Hence, the occurrence of any of the above mentioned events is hypothetical. As the data reveals, O&M cost is not at all critical in that even a 100% reduction in O&M cost does not render the project non-additional.

In sum, the validation team concluded that the project activity complies with all relevant additionality requirements and deemed the investment barrier to be significant in order to prevent the project activity from being implemented without additional revenues from CERs.

Barrier analysis

Not applicable

Common practice analysis

For the purpose of common practice analysis, project developer has chosen all power generating wind projects in operation as on the start date of the project with a capacity ranging from 5.25 MW to 15.75 MW (i.e. 50% to 150% of the installed capacity of the project being 10.5 MW) in the host country India (geographical region) as required by EB 69 Annex 8. Ndiff has been calculated on following basis: according to Size of installation, Investment climate on the date of the investment decision (Different Indian states have different legal regulations and investment

climate[6] also scenario prior Electricity Act 2003[7] was different). There were in all 287 projects engaged in power generation the proposed project activity and have started commercial operation before the start date of the project; of them, the projects that are neither registered
CDM project activities, project activities submitted for registration, nor project activities undergoing validation are 154 (Nall) and projects using 'different technologies' were 140 (Ndiff). Therefore F = 1- (140/154) = 0.09091. Since F is less than 0.2, it is concluded that the project activity is not a common practice in the country. The details of the projects, the source of data and the calculations are given in the PDD and common practice analysis spreadsheet. The sources used for project consideration into the common practice analysis are "Directory Indian Wind Power 2011" and IGES CDM Project Database (http://www.iges.or.jp/en/cdm/report_cdm.html) and UNFCCC web-site. Validation team has checked the source for projects considered in the common practice analysis and found them appropriate thus accepted.

Summary

Additionality of the project activity demonstrated conforms to the methodology and methodological tools; input parameters are evidenced by documents and the calculation has been presented transparently. Therefore, it is concluded that the project activity is additional.

Summary

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5.2.6 Monitoring Methodology

The project complies the monitoring methodology ACM0002 version 13.0.0, for grid connected electricity generation from renewable sources.

5.2.7 Monitoring Plan

This methodology stipulates that monitoring shall consist of metering the electricity supplied by the project activity to the grid (ex-post) by the renewable technology.

In this case the net electricity generated by GFL WTGs will be monitored and reported by RRVPNL in JMR certificate on the basis of the metering done at the main meter connected to the incoming feeder. This measured electricity will be the total of electricity imported from all WTGs connected to the feeder including electricity generated from WEGs other than the project activity. The electricity metered at this

[6] http://mnre.gov.in/information/renewable-energy-regulatory-framework
[7] http://www.rrecl.com/PolicyImage.aspx

meter is proportionally divided among the customers connected to the meter on the basis of the pro-rata readings taken at the controller meter. Apportioning procedure has been described in annex 4 of the PDD, which is found appropriate and same was confirmed during the site visit and interviews[/IM01//IM02/]. The procedure to monitor the electricity export and import is explained in section B.7 of the PDD and was assessed to be appropriate.

Calibration, periodical testing and maintenance procedures of monitoring equipment are clearly mentioned under the section B.7 of PDD.

The OM and BM are calculated as fixed for renewable crediting period by choosing data vintage[/cea/] based on ex-ante monitoring published by CEA. Hence data needed to recalculate OM and BM does not apply. According to the monitoring plan of the PDD this requirement is fulfilled.

5.2.8 Project Management Planning

Gujarat Fluorochemicals Limited formed a structured project management team to ensure proper operation and continuous monitoring of proposed project activity. Gujarat Fluorochemicals Limited has also entered into a comprehensive Operation and Maintenance agreement[/O&M/] with the Suzlon Energy Ltd on 2009-08-08. This agreement for all the operation and maintenance services e.g. routine post operative and other operational services, security services, management services, technical services etc.

As interviewed during the onsite observation, all the personnel are qualified and trained for the type of work. From whole the assessment during onsite observation and desk review by the DOE, the project management planning is found to be adequate and appropriate for type of project monitoring.

5.2.9 Crediting Period

The choice of the crediting period (renewable vs. non-renewable) unambiguously given in entire PDD.

The intended crediting period of the project is 2013-01-01 to 2019-12-31 (which can be renewed twice). The starting date of the crediting period is 2013-01-01.

5.2.10 Environmental Impacts

Social & environmental impacts of the project have been sufficiently addressed. No adverse environmental impacts as well as trans-boundary impacts have been envisaged from this project activity. Environmental Impact Assessment (EIA) is not

required for this type of project activity as per the rules and regulations of host country (India)[8].

5.2.11 Comments by Local Stakeholders

Stakeholders have been directly asked to comment on the project through an open meeting among local stakeholders. Local communities, NGOs, suppliers, employees, contractors and consultants/ advisors have been identified as the stakeholders. project participant (GFL); GFL published an advertisement in the local newspaper "Dainik Bhaskar" dated 3rd March, 2010 inviting representatives of various stakeholder groups with a brief on the project informing them of the proposed meeting at 11.30 PM on 16th March 2010 at Primary School, Govindpura, Tehsil Ossiyan, District Jodhpur requesting all to attend meeting or depute representatives

No adverse comments were received and this is addressed in the PDD.

A summary of the comments received during the public consultation are included in PDD. All comments are positive in nature. However, CL E1 was raised and successfully closed.

[8] http://envfor.nic.in/legis/eia/so1533.pdf

6 VALIDATION OPINION

Gujarat Fluorochemicals Limited has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: "10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)" 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 14 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) dated 2010-12-22, ref. no. 4/15/2010-CCC.
- 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 124,529 tCO2e are most likely to be achieved within the (1st renewable) 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.

Delhi, 2012-12-07

Abhishek Kumar Srivastava
TÜV NORD JI/CDM CP
Validation Team Leader

Essen, 2012-12-07

Ingo Klein
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/ADD/	1. Offer letter from Suzlon Energy Ltd. dated 2009/04/16 2. Oriental Insurance Company Insurance Policies dated 2009/11/03 3. Chartered Accountant's certificate on financing pattern dated 2011/08/02 4. Chartered Accountant's certificate on investment made dated 2010/09/06 5. Letter from Suzlon Energy on the operating life of the windmill 2009/08/13 6. Generation since September 2009 to June 2011. 7. The New India Assurance Company Limited Insurance Policy dated 2008/02/18.
/CC/	Commissioning Certificates dated 2009/10/15
/CON/	The signed contract between TUV NORD Cert GmbH and M/s Gujarat Fluorochemicals Limited for carrying out validation of the CDM project activity dated 2010-08-04.
/HCA/	Host Country Approval from Indian DNA ref no. 4/15/2010-CCC dated 2010/12/22
/IRR/	IRR calculation sheet along with PDD 1 dated 2010/09/13
/IRR2/	IRR calculation sheet along with PDD 2 dated 2011/08/04
/MD/	Board Resolution on serious consideration of CDM dated 2009/05/22
/MOC/	Modalities of Communication dated 2012/08/27
/PC/	Prior consideration of CDM form submitted to UNFCCC dated 2009/10/23
/PDD1/	Project Design Document named "10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)" (Ver.1) dated 2010/09/13 hosted from 2010/09/17 to 2010/10/08
/PDD/	Project Design Document named "10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)" (Ver.2) dated 2011/01/11 re hosted from 2011/02/28 to 2011/03/29.
/PDD1.1/	Project Design Document named "10.5 MW wind power project in Ossiya,

Reference	Document
	Rajasthan by Gujarat Fluorochemicals Limited (GFL)" (Ver.3) dated 2011/06/23
/PDD1.2/	Project Design Document named "10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)" (Ver.4) dated 2011/08/08
/PDD1.3/	Project Design Document named "10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)" (Ver.5) dated 2012/01/12
/PDD2/	Project Design Document named „10.5 MW wind power project in Ossiya, Rajasthan by Gujarat Fluorochemicals Limited (GFL)" (ver 6) dated 2012/09/06
/PLF/	Wind Resource Assessment Report by Power & Energy Consultants dated 2009/05/06
/PO/	1. Equipment Supply Agreement dated 2009/08/08 2. Agreement for Civil Works and Site Development dated 2009/08/08 3. Erection, Installation and Commissioning Agreement dated 2009/08/08
/PPA/	Power Purchase Agreement signed with Jodhpur Vidyut Vitran Nigam Limited dated 2009/09/22.
/PSD/	Equipment Supply Agreement dated 2009/08/08 (project start date)
/RERC/	RERC Tariff Regulation 2009 dated 2009/01/23
/TRG/	Training procedures and training records of contractor.
/XLS/	Emission reduction calculation spreadsheet

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM 0002/	Consolidated baseline methodology for grid-connected electricity generation from renewable sources version 13.0.0.
/CDM/	1. Tool for the demonstration and assessment of additionality – Ver 06.0.0 (Annex 21, EB 65).

Reference	Document
	2. Guidance on the Assessment of Investment Analysis – Ver.05 (Annex 5, EB 62) 3. Guidelines on the demonstration and assessment of prior consideration of the CDM –Ver 03 (Annex 13, EB 62) 4. Guidelines for the reporting and validation of plant load factors- Ver. 01 (Annex 11, EB 48) 5. Tool to calculate the emission factor for an electricity system" (Version 2)
/CDM-PDD/	CDM-PDD filling guideline version 07 (Annex 09, EB 34)
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/EIA/	EIA notification by the MoEF, India dated 14 September 2006 (http://envfor.nic.in/legis/eia/so1533.pdf)
/GCP/	UNFCCC: Guidelines for completing CDM-PDD and CDM-NM
/IPCC/	• IPCC Good Practice Guidance & Uncertainty Management in National Greenhouse Gas Inventories, 2000 • Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual
/PDD-T/	Project Design Document Form (CDM PDD) – Version 03
/KP/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7))
/VVM/	Validation and Verification Manual (Ver. 01.2, Annex 1, EB 55)

Table 7-3: Websites used

Reference	Link	Organisation
/bse/	http://www.bseindia.com/	The Stock Exchange, Mumbai
/ca/	http://www.mca.gov.in/Ministry/pdf/Companies_Act_1956_13jun2011.pdf	Companies Act, 1956
/cea/	www.cea.nic.in	Central Electricity Authority
/cwet/	www.cwet.tn.nic.in	Centre for Wind Energy Technology
/it/	http://law.incometaxindia.gov.in/DIT/Income-tax-acts.aspx http://law.incometaxindia.gov.in/DIT/income-tax-rules.aspx http://www.caclubindia.com/forum/income-tax-rates-slabs-from-a-y-2001-02-to-a-y-2013-14-132138.asp http://www.servicetax.gov.in/st-proc-home.htm	Income Tax Act Income Tax Rule Corporate Tax rate Service Tax rate
/moef/	www.moef.nic.in	Ministry of Environment and Forest
/rbi/	www.rbi.org.in	Reserve Bank of India
/rerc/	http://www.rerc.rajasthan.gov.in/	Rajasthan Electricity Regulatory Corporation
/suzlon/	http://www.suzlon.com/	Suzlon Energy Ltd.
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms.	Shashikant Verma	Joint General Manager, GFL
/IM01/	V	☒ Mr. ☐ Ms.	Shyam S. Jangid	Engineer S/I,Suzlon

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms.	Nafees Khan	Engineer S/I, Suzlon
/IM01/	V	☒ Mr. ☐ Ms.	Prem Prakash	Admin. ,Suzlon
/IM01/	V	☒ Mr. ☐ Ms.	Swadia Shekhawat	Assistant Manager, Suzlon
/IM02/	V	☒ Mr. ☐ Ms.	Atin Prakash	Senior consultant, E&Y
/IM03/	V	☒ Mr. ☐ Ms.	Mahipal Singh	Villager
/IM03/	V	☒ Mr. ☐ Ms.	Bhiaroo Singh	Villager
/IM03/	V	☒ Mr. ☐ Ms.	Machiram	Villager
/IM03/	V	☒ Mr. ☐ Ms.	Tari Singh	Villager

[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:* As per the requirement of CDM modalities and procedures the Letter of Approval needs to be obtained from the parties involved. HCA issued by the DNA of host country has not been provided to the DOE. *Justification of evidences:* HCA is pending. *Conclusion:* Pending closure CL A1.	/HCA/	~~CL A1~~	OK
A.1.2. Are the approvals issued from orgainsations listed as DNAs on the UNFCCC CDM website?	*Description:* Please refer to the checklist item A.1.1. *Justification of evidences:* HCA has not been received.	/HCA/	~~CL 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.**
(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 verified with the DNA. Further describe which entity submitted the LoA for validation.*	*Conclusion:* Pending closure CL A1.			
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:* Please refer to the checklist item A.1.1. *Justification of evidences:* HCA has not been received *Conclusion:* Pending closure CL A1.	/HCA/	~~CL A1~~	OK
A.1.4. Do the written approvals confirm that the participation is voluntary? (EB 55 Annex 1, § 45(b))	*Description:* Please refer to the checklist item A.1.1. *Justification of evidences:* HCA has not been received *Conclusion:* Pending closure CL A1.	/HCA/	~~CL A1~~	OK
A.1.5. Does the written approval from the host country confirm7 that the project contributes to the sustainable development in the country? (EB 55 Annex 1, § 45(c))	*Description:* Please refer to the checklist item A.1.1. *Justification of evidences:* HCA has not been received. *Conclusion:* Pending closure CL A1.	/HCA/	~~CL A1~~	OK
A.1.6. Do the written approvals refer to the precise project title in the PDD submitted for	*Description:* Please refer to the checklist item A.1.1.	/HCA/	~~CL 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.
registration or an additional specification of the project activity, e.g. PDD version number? (EB 55 Annex 1, §§ 45(d), 50)	*Justification of evidences:* HCA has not been received. *Conclusion:* Pending closure CL A1.			
A.1.7. Are the written approvals unconditional with regard to A.1.3 to A.1.6? (EB 55 Annex 1, § 46)	*Description:* Please refer to the checklist item A.1.1. *Justification of evidences:* HCA has not been received. *Conclusion:* Pending closure CL A1.	/HCA/	~~CL 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? (EB 55 Annex 1, § 51)	Description: The name of the project participant is consistent in section A3 and appendix 1 of the PDD Justification of evidences: The PDD is crosschecked by the validation team and found correct. Conclusion: The name of the project participant is consistent in section A3 and appendix 1 of the PDD	/PDD/	~~CL A1~~	OK
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*	*Description:* Please refer to the checklist item A.1.1. *Justification of evidences:* PDD is checked. *Conclusion:* Pending closure CL A1.	/PDD/	~~CL 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.				
A.1.10. Are any other project participants approved but not listed in the PDD? (EB 55 Annex 1, § 52)	*Description:* No other project participants are mentioned except Gujarat Fluorochemicals Limited. Please refer to the checklist item A.1.1. *ustification of evidences:* PDD has been checked. *Conclusion:* Only one project participant is listed in the PDD. However HCA is awaited for the same.Please refer to CL A1..	/PDD/	~~CL A1~~	OK
A.1.11. Does the DoE have a direct contractual relationship with the PP? (EB 55 Annex 1, § 51; EB 50 Annex 48, §§ 7–9) *Check whether the PPs listed in the published PDD are still listed in the PDD going to be submitted to request for registration.*	Description: Yes the DOE has the direct contractual relationship with the PP. Justification of evidences: PP signed the contract with DOE on 2010-11-19. Conclusion: Project activity complies the requirement of the VVM and EB 50 annex 48.	/PDD/ /CON/	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*	*Description:* HCA submission to VT awaited. Please refer to the checklist item A.1.1. *Justification of evidences:* Submitted docs are checked and HCA is not found.	/HCA/	~~CL 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.
the Host Party.	*Conclusion:* Pending closure CL A1.			
A.2.2. Will the project create other environmental or 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.*	*Description:* Yes, the project creates other environmental or social benefits than GHG emission reductions as described below: • The project activity is creating the employment opportunity in the region. • Project activity is developing local infrastructure. *Justification of evidences:* The above described benefits were observed during site visit, and PDD was also checked. *Conclusion:* The project activity contributes to the environmental and social benefits. Proposed Project activity complies the requirement of the VVM para 125-127/VVM/.	/PDD/ /IM03/	OK	OK
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:* Version 03 of CDM-PDD template has been applied which is the latest PDD form. *Justification of evidences:* The PDD form has been cross checked with UNFCCC website http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html and found to be correct. *Conclusion:* Project activity complies the requirement. of the VVM para 55./VVM/.	/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:* Yes, the PDD has been filled in accordance with the latest PDD guideline, however following departures from CDM-PDD guidelines/form were observed to the validation team: 1. PP is requested to be consistent with the units used throughout the PDD. Cp CDM-PDD guidelines. 2. All figures and tables in the PDD are required to be captioned and numbered. 3. PP is requested to provide the web link or supporting documents for the technical specifications of the WTGs. 4. Section A.4.2 of the PDD does not contain description regarding information about the age and average lifetime of the equipments based on manufacturer's specifications and industry standards, and existing and forecast installed capacities, load factors and efficiencies. The monitoring equipments and their location in the systems is of particular interest. Cp CDM-PDD filling guidelines. *Justification of Evidences:* http://cdm.unfccc.int/Reference/Guidclarif/pdd/index.html has been checked by the assessment team and found correct *Conclusion:* Pending closure of CAR A2.	/PDD/ /unfccc/	~~CAR A2~~	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
A.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.* *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.*	*Description:* Yes, the PDD contain a clear, accurate and complete project description. The project description provided in sections A.2, A.4.2 and A.4.3 were verified by the validation team during the site visit. *Justification of Evidences:* The submitted PDD is assessed against the CDM PDD Form ver.03, CDM PDD guidelines ver.07 and found to be accurate and complete. Further independent web research was carried out in order to confirm technical details of the WEGs. (http://www.suzlon.com/products/l2.aspx?l1=2&l2=8 accessed on 2011-02-28) *Conclusion:* Based on the on-site assessment and verification of documents and interviews the validation team confirms that the technical project description is clear, transparent, accurate and complete.	/PDD/ /IM01/	OK	OK
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:* Yes the project is a green field project and description cited in the PDD is in accordance with the real situation. *Justification of evidences:* During the site visit, it was found that the project description is in line as stated in PDD and the same has been confirmed while interviewing the personnel.	/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.**
	Conclusion: As project was already implemented at the time of site visit, the project description in the PDD is confirmed as per the actual situation.			
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) *Describe the steps taken to validate this issue.*	*Description:* There is no alteration of the existing installation as found during site visit as the project is a new project. *Justification of evidences:* Project activity is a new activity and involves no alteration; same has been confirmed during the site visit. *Conclusion:* The project complies with the EB 55 Annex1 §§ 63–64.	/PDD/ /IM01/	OK	OK
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 entails the installation of 1.5 MW WTGs of reputed manufacturer Suzlon Energy Ltd. *Justification of evidences:* The details provided in the PDD have been cross checked with the Suzlon website and DOE local and sectoral expertise is sufficient enough to prove that the project design engineering reflects current good practice with is in line with the VVM and is acceptable to validation team. *Conclusion:* The project activity complies with requirement as project design engineering reflects current good practices.	/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.
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:* PP is requested to justify how the technology used is 'state of the art' as mentioned in section A.2 of the webhosted PDD. *Justification of evidences:* PDD was checked. *Conclusion:* Pending closure of CL A3.	/PDD/	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:* As per the webhosted PDD, GFL has undertaken an operation and maintenance agreement with the supplier of the wind turbines i.e. Suzlon Energy Ltd, but the submitted training certificates are from SAFEPRO. *Justification of evidences:* VT has checked the submitted training certificates which were issued by SAFEPRO. *Conclusion:* Pending closure of CL A4.	/PDD/ /TRG/	~~CL A3~~	OK
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:* Proposed CDM project is a large scale project activity. *Justification of evidences:* *Conclusion:*	/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.**
A.5.2. Does the project apply one of the approved small scale categories and any methodology and tool referred therein? (EB 55 Annex 1, § 136 (b)) *Check, if applicable the expiry dates of the applied methodology. Further, take into consideration the general guidance to the methodologies[9], which provide guidance on equipment capacity, equipment performance, sampling and other monitoring related issues.*	*Description:* Please refer checklist item no. A.5.1 *Justification of evidences:* *Conclusion:*	/PDD/	OK	OK
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:* Please refer checklist item no. A.5.1 *Justification of evidences:* *Conclusion:*	/PDD/	OK	OK
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:* Please refer checklist item no. A.5.1 *Justification of evidences:* *Conclusion:*	/PDD/	OK	OK

[9] 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.
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 activity applies the approved and valid ACM0002 version 12.0.0 (EB 52) methodology. *Justification of Evidences:* The validation team searched the UNFCCC website and found the CDM methodology ACM0002 Version 12.0.0 (EB 52) is present there and the latest version of the methodology is 12 under sectoral scope 01. *Conclusion:* The project applies an approved and applicable CDM methodology and a valid version thereof. However, later CAR B19 was raised.	/PDD/ /ACM0002/	~~CAR B19~~	OK
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:* Yes, the applied CDM methodology i.e. ACM0002 Version 12 (EB 52) is identical as available on the UNFCCC website. *Justification of evidences:* http://cdm.unfccc.int/methodologies/DB/C505BVV9P8VSNNV3LTK1BP3OR24Y5L has been checked by the assessment team and found correct *Conclusion:* Validation team confirms that the methodology used in the proposed project activity is exactly same as the methodology available on the UNFCCC website.	/PDD/ /ACM0002/ /unfccc/	~~CAR B19~~	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.**
	However, later CAR B19 was raised.			
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:* Yes, the project activity meets first applicability criteria of the applied CDM methodology i.e. ACM0002 Version 12.0.0 (EB 52. Project activity has also applied the following methodological tools as prescribed in the methodology ACM0002 Version 12.0.0 which were subsequently updated to the latest versions available on UNFCCC website: 1. Tool to calculate the emission factor for an electricity system (version 02), EB 50. 2. Tool for the demonstration and assessment of additionality version 5.2. *Justification of evidences:* Same has been cross checked with UNFCCC webs*ite.* *Conclusion: Project ac*tivity complies all the requirements of the applied methodology and tools referred therein. However, later CAR B19 has been raised.	/PDD/ /unfccc/ /ACM0002/	~~CAR B19~~	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.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 met by the proposed project activity. Please refer to B.1.3. *Justification of evidences:* All the applicability criteria have been checked with the methodology by validation team and found correct. *Conclusion:* All the applicability criteria are meeting for the project activity. No, clarification, revision and deviation are required.	/PDD/ /ACM0002/ /unfccc/	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:* Yes, the project is in accordance to every other stipulation or requirement mentioned in all sections of the methodology. *Justification of evidences:* VT has assessed the project description in PDD against the methodological requirements and EB guidance. Same was also assessed during site visit. *Conclusion:* Project activity complies with the all the requirements of applied methodology.	/PDD/ /ACM0002/ /unfccc/	OK	OK
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?	Description: The project boundary includes WTGs connected to the substation of the regional grid. The project boundary also includes metering yard, feeder and substation. However, As per the applied	/PDD/ /IM01/	~~CL A4, 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.**
(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.*	methodology, "The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to". However, clarify the reasons of excluding the grid from the project boundary. Moreover, clarify the relevance of the Auxiliary consumption. Though Latitude and longitude of all the WTGs are clearly mentioned in the webhosted PDD, PP needs to substantiate the location of each and every WTG involved in the proposed project activity under section A.4.1.4 of the webhosted PDD, hence CL B1 is raised. *Justification of evidences:* During the site visit and subsequent interview with personals working on site. It was found that the project boundary consist of wind turbine generator, transformer, EB substation and southern regional grid of India. *Conclusion:* Pending closure of CL A5 and CAR B1.		~~B1~~	
B.2.2. Are all sources and GHGs included in the project boundary as required in the applied 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.*	*Description:* Yes all the sources of the GHGs included in the project boundary in accordance to the applied methodology. The only GHG considered in the project activity is CO_2. *Justification of evidences:* Same has been cross checked with the applied methodology and found meeting the requirements. *Conclusion:* All the sources and GHGs are included in the project boundary as required by the applied methodology and project meets the requirements of EB 55 annex1 §§ 67(a), 78–80.	/PDD/ /ACM0002/	OK	OK
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	Description: Yes, section B.3 of PDD adequately explains and justifies the exclusion or inclusion of source or gas from/in the project boundary. The only GHG considered in the absence of the	/PDD/ /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.
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.*	project activity is CO_2. Justification of evidence: The methodology ACM0002 was checked by the assessment team and found that all the sources and GHG are included in the PDD. No other sources and gases are allowed by the methodology. This is also checked during the site visit and interview with the client. Conclusion: The main source of emissions in the baseline is CO2. There are no other sources and GHGs are involved in the project activity. No other sources and gases are allowed by the methodology	2/ /IM01/		
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 proposed project activity is the installation of a new grid connected renewable power plant i.e. wind turbine generator (WTG). As per the methodology for this type of project activity the baseline scenario would be "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". PP has chosen the baseline scenario in accordance to the methodology and thus has not considered the possible baseline scenarios.	/PDD/ /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.
	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:* The baseline scenario if 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.			
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 Pl. also Refer to B.3.1	/PDD/ /ACM0002/	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 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". *Justification of evidences:* This is in accordance to the applied methodology. Moreover, during the site visit and subsequent interview with the client it was confirmed that chosen baseline is adequate for the project activity.	/PDD/ /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 chosen baseline scenario is appropriate for the type of proposed project activity.			
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:	/PDD/ /ACM0002/	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:	/PDD/ /ACM0002/	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, calculations and rationales used in the PDD. Describe whether these are listed, relevant and conservatively*	☒ 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	/PDD/ /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.
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: The chosen baseline scenario is in accordance with all the relevant national and/or sectoral policies, macro-economic trends and political aspirations which are applicable as per the EB 22 annex 3. Moreover, the chosen baseline scenario is in line with the prescription of applied methodology. Justification of evidences: VT has done the background research to take into account the relevant national and/or sectoral policies, macro-economic trends and political aspirations. Moreover, The national and sectoral policies are not relevant for Indian projects and not a requirement as per Para 27 of EB 55. Conclusion: The baseline scenario sufficiently takes into account relevant national and/or sectoral policies, macro-economic trends and political aspirations and thus project complies with the requirements.	/PDD/ /ACM0002/ /unfccc/	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:* Baseline scenario determination is compatible with the available data and all literature and sources. *Justification of evidences:* Validation team checked the assumptions and data used in the PDD for identification of baseline scenario along with the references and sources and found appropriate. *Conclusion:* Project activity satisfies the requirement of the VVM. The baseline scenario determination compatible with the available data and all literature and sources correctly referenced.	/PDD/ /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.
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:* Prior to the project activity the electricity was imported by the grid i.e. NEWNE grid. Thus it is clear that in the absence of proposed project activity electricity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources and since same scenario is taken as baseline for the proposed project activity, it is verified and appropriate for the type of project activity. A clear description of baseline scenario has been described in final PDD section B.4.Moreover Pl. refer to B.2.1. *Justification of evidences:* The CEA data base and user guide are publically available documents and issued by government of India and thus considered authentic by the VT. *Conclusion:* PDD contains a verifiable description of the baseline scenario. PDD also refers to CEA data which clearly indicates that baseline chosen is appropriate.	/PDD/ /cea/ /ACM0002/	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 applied methodology and/or methodological tools?	*Description:* PDD describe that how the project is additional and the additionality demonstration follows the requirements of applied methodology. *Justification of evidences:* PDD and IRR sheet has been checked against the requirements of applied methodology i.e. ACM 0002.	/PDD/ /IRR/ /ACM 0002/	~~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.
(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.*	*Conclusion*: Subject to closure of CAR B8			
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, § 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 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.*	*Description:* The date on which the supply agreement was signed has been taken as start date of the project activity. *Justification of evidences*: PDD, Supply Agreement dated 2009/08/08 are checked and resulted in CAR B2 *Conclusion:* Subject to closure of CAR B2	/PDD/ /PSD/	~~CAR B2~~	OK
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?	*Description:* UNFCCC and DNA have been informed about the intention to seek CDM status. *Justification of evidences:* Correspondence with UNFCCC and DNA are checked and resulted in CAR B3	/PC/	~~CAR 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, §§ 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.*	*Conclusion:* Pending closure of CAR B3.			
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) *Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.*	*Description:* Start date of the project is after 2nd August 2008 and hence this issue is not applicable. *Justification of evidences:* PDD and Supply Agreement dated 2009/08/08 *Conclusion:* Pending closure of CAR B3.	/PDD/	~~CAR B3~~	OK
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:* Board of Directors took the decision on 2009/05/22 *Justification of evidences:* Board Resolution dated 2009/05/22 and resulted in CAR B4 *Conclusion:* subject to closure of CAR B4 and B5	/MD/	~~CAR B4, B5~~	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*	*Description:* Yes, the start date is consistent with the Supply Agreement. *Justification of evidences:* Supply Agreement dated 2009/08/08 *Conclusion:* Subject to closure of CAR B4.	/PSD/	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.
and transparently described in the PDD.				
B.4.2.6. Was the decision to proceed with the project taken by a person which has the authority to do so? (EB 55 Annex 1, § 102(a) *Describe the steps taken to validate this issue.*	*Description:* The investment decision was taken by the Board of Directors *Justification of evidences:* Board Resolution dated 2009/05/22 checked by the assessment team found that decision to proceed with the project taken by a person who has the authority to do so. *Conclusion:* Subject to closure of CAR B4 and B5	/PDD/ /MD/	~~CAR B4, B5~~	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:* Board of Directors considered the CDM benefits while taking investment decision. *Justification of evidences:* Board resolution dated 2009/05/22 is checked by the assessment team and found that the CDM is seriously considered in the project activity *Conclusion:* Pending closure of CAR B4, B5.	/PDD/ /MD/	~~CAR B4, B5~~	OK
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 49 Annex 22 § 7)	*Description:* Since the project start date is after 2008/08/02, this issue is not applicable *Justification of evidences:* Supply Agreement dated 2009/08/08 *Conclusion:* No CAR / CL is necessary.	/PSD/	OK	OK
B.4.2.9. Is the gap of documented evidences to	*Description:* Since the project start date is after 2008/08/02, this	/PSD/	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.
secure the CDM status less than 3 years and are the evidences relevant for substantiating the action taken, credible, reliable and complete? (EB 49 Annex 22 § 8)	issue is not applicable *Justification of evidences:* Supply Agreement dated 2009/08/08 *Conclusion:* No CAR / CLs are necessary.			
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:* The project implementation did not cease. *Justification of evidences:* Supply Agreement, Commissioning Certificates dated 2009/10/15. It is also confirmed during the site visit. *Conclusion:* No CAR / CL is necessary	/PSD/ /CC/	OK	OK
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:* Yes, the CDM involvement in the decision making is serious *Justification of evidences:* Board resolution dated 2009/05/22 was checked and found correct by assessment team *Conclusion:* Subject to closure of CAR B4, B5 and B6.	/MD/	~~CL B4, B5, B6~~	OK
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	*Description:* Not applicable as approved methodology prescribes the baseline.	/PDD/ /ACM	~~CAR B7~~	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
other viable means of supplying the outputs or sevices 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.*	*Justification of evidences:* VT has checked the PDD, applied methodology ACM 0002 against the requirements of §§ 105–107 VVM (Ver. 01.2) *Conclusion:* Pending closure of CAR B.7.	0002/		
B.4.3.2. Have all realistic alternatives been identified to the project? (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.*	*Description:* Not applicable as approved methodology prescribes the baseline *Justification of evidences:* PDD, Methodology ACM 0002 and VVM (ver 01.2) *Conclusion:* Pending closure of CAR B7	/PDD/ /ACM 0002/	~~CAR B7~~	OK
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:* Not applicable as approved methodology prescribes the baseline *Justification of evidences:* PDD, Methodology ACM 0002 and VVM (ver, 01.2) *Conclusion:* Pending closure of CAR B7	/PDD/ /ACM 0002/	~~CAR B7~~	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..*				

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.4.4.1. Does the PDD provide evidence that the project would not be the most economically or financially attractive alternative or economically / financially feasable without the revenues from the sale of CERs? (EB 55 Annex 1, § 108)	*Description:* Yes, the PDD provides evidence to the effect that the project activity is not financially attractive without CER revenues. *Justification of evidences:* The PDD has been checked by the assessment team and found that the conformity of project activity to Annex 13, EB 62 has been explained in the PDD. *Conclusion:* The PDD provides evidence to the fact that the project activity is not financial attractive based without CER revenues	/IRR/ /PDD/	OK	OK
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:* Project developer has chosen benchmark analysis to demonstrate additionality of the project, which is in conformity with guidance 19 of Annex 5, EB 62. Since baseline is the import of power from grid, benchmark analysis is appropriate for the additionality demonstration. *Justification of evidences:* PDD, and Worksheet has been checked. *Conclusion:* Benchmark analysis has been chosen for demonstration of project activity which is appropriate.	/IRR/ /PDD/	OK	OK
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.*	*Description:* Yes, a clear and viewable and unprotected excel spread sheet containing investment analysis calculations has been submitted. *Justification of evidences:* Worksheet has been reviewed. *Conclusion:* Clear, viewable and unprotected excel spreadsheet has been provided for the investment calculation..	/IRR/	OK	OK
B.4.4.4. Does the period chosen for the investment	*Description:* 20 year period has been chosen for investment		~~CL B9~~	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.
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.*	analysis, which reflects the technical lifetime of the project activity. *Justification of evidences:* Worksheet has been checked but there was no supportive evidence and hence CL B9 is resulted. *Conclusion:* Subject to closure of CL B9.	/IRR/		
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:* Not applicable as it is a green-field project and all the wind turbine generators involved in the project are new equipments. *Justification of evidence:* PDD has been checked. *Conclusion:* There is no requirement to assess the remaining lifetime of equipments.	/PDD/	OK	OK
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*	*Description*: Fair value has been considered at 10% of the value of assets.. *Justification of evidence:* Worksheet has been checked however proof for the same is pending and CAR B10 is resulted. *Conclusion*: Subject to closure of CAR B10	/IRR/	~~CAR B10~~	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
project specific circumstances. Describe potential mismatches between regulations and the approach applied for calculating the fair value.				
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*: Fair value has been taken at 10% of the value of assets, which is only potential profit, as the book value is nil *Justification of evidence:* worksheet has been checked. *Conclusion*: Subject to closure of CAR B10.	/IRR/	~~CAR B10~~	OK
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 and non tax items have been added back to net profits for the purpose of calculation of financial indicator *Justification of evidence:* Worksheet has been checked, *Conclusion* Subject to closure of CAR B12	/IRR/	~~CAR B12~~	OK
B.4.4.9. Is taxation excluded in the investment analysis or is the benchmark intended for post tax comparisons? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 5)	*Description:* Benchmark is intended for post tax comparison and hence tax has been excluded in the investment analysis *Justification of evidence:* worksheet has been checked. *Conclusion:* Tax is included in the calculation appropriately.	/IRR/	OK	OK
B.4.4.10. Were the input values used in the investment analysis valid and applicable at the time of the investment decision? (EB 55 Annex 1, § 109,112; EB 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:* Input values used in the investment analysis were applicable at the time of investment decision. *Justification of evidence:* worksheet, offer letter, RERC tariff order, PLF assessment report, Income Tax Act,1961, Income Tax Rules, Companies Act, 1956 *Conclusion*: Pending closure of CAR B 11 and CAR B.12	/IRR/ /ADD1/ /RERC/ /PLF/ /IT/	~~CAR B11~~ ~~CAR B12~~	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
FSR and PDD.				
B.4.4.11. Is the plant load factor (PLF) chosen in a conservative manner, taking into account that the PLF may be different in the framework of demonstrating additionality and calculating the ex-ante ER? (EB 48, Annex 11)	*Description:* PP is requested to justify the PLF value against the requirement of EB 48 annex 11 in the section B.5 of the webhosted PDD. *Justification of evidence:* PDD is checked and resulted in CAR B13. *Conclusion:* Subject to closure of CAR B13.	/IRR/ /PLF/	~~CAR B13~~	OK
B.4.4.12. In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of project IRR? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 9)	*Description:* It is observed that the project is fully funded by equity. And therefore this question is not applicable. *Justification of evidence:* PDD and Worksheet have been checked and found that equity IRR has been considered for the project activity. *Conclusion:* However PI. refer CAR B12	/IRR/ /ADD3/	~~CAR B12~~	OK
B.4.4.13. In cases where a post-tax benchmark is applied please ensure that actual interest payable is taken into account in the calculation of income tax. (EB 62 Annex 5, § 11) *As per the guidance it is recommended to select a pre tax benchmark in order to Describe the steps taken in assessing this requirment.*	*Description:* It is observed that the project is fully funded by equity. And therefore this question is not applicable. *Justification of evidence:* PDD and Worksheet have been checked and found that equity IRR has been considered for the project activity. *Conclusion:* However PI. refer CAR B12	/IRR/ /ADD3/	~~CAR B12~~	OK
B.4.4.14. In case of equity IRR: Is the part of the investment costs, which is financed by equity considered as net cash outflow and is the part financed by debt excluded in net	*Description:* The project is entirely funded by equity; hence entire cost is considered as cash outflow. *Justification of evidence:* PDD and worksheet have been checked and found that part of the investment costs, which is financed by	/IRR/ /ADD4/	~~CAR B12~~	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
cash outflow? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 10)	equity considered as net cash outflow and is the part financed by debt excluded in net cash outflow. *Conclusion:* Subject to closure of CAR B12.			
B.4.4.15. Is the type of benchmark chosen appropriate for the type of IRR calculated (e.g. local commercial lending rates or weighted average costs of capital for project IRR; required/expected returns on equity for equity IRR)? (EB 55 Annex 1, § 111; EB 62 Annex 5, §§12 – 15) *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 :* Expected / required rate of return on equity has been chosen as benchmark which is appropriate for the equity IRR. *Justification of evidence;* PDD and worksheet have been checked and found that type of benchmark chosen is appropriate. *Conclusion:* Subject to closure of CAR B14.	/IRR/	~~CAR B14~~	OK
B.4.4.16. Is the benchmark value suitable for the project activity and is it reasonable to assume that no investment would be made at a rate of a lower return than the benchmark? (EB 55 Annex 1, § 109; EB 62 Annex 5, §§13 – 15) *Describe whether it is reasonable to assume that a lower rate of return would consequently result in the baseline scenario.*	*Description :* Section B.5 does not explain how the expected return on equity chosen as benchmark confirms to guidance 12 and 13 of annex 58, EB 51. Since the calculations supporting the benchmark have not been furnished, comments on the benchmark are reserved. *Justification of evidence :* PDD and worksheet have been checked and which resulted to CAR B14 and B6. *Conclusion: S*ubject to closure of CAR B14 and B6.	/IRR/ /MD/	~~CAR B6, B14~~	OK
B.4.4.17. Is it ensured that the project cannot be developed by other developers than the PP?	*Description:* The project can be developed by other developers also. *Justification of evidence:* PDD and worksheet have been checked	/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.**
(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.*	and thereby VT has confirmed the same. *Conclusion:* The project activity is installation of wind turbine generators which can be done by other developer as well.			
B.4.4.18. Was the benchmark consistently used in the past for similar projects with similar risks? (EB 55 Annex 1, § 112(c))	*Description:* Not applicable, as internal benchmark has not been used *Justification of evidence:* PDD has been checked and as confirmed during site visit and checked from the UNFCCC project list from the same PP, it is confirmed that PP was using the same type of benchmark in the past for similar projects. *Conclusion:* Since internal benchmark has not been used and therefore this assessment is not required.	/PDD/	OK	OK
B.4.4.19. Does the PDD and related spreadsheets contain a sensitivity analyis 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, § 17–18) *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:* Yes, the PDD and related spreadsheets contain sensitivity analysis and they contain variation in parameters which may vary throughout the project lifetime. *Justification of evidence:* PDD and worksheet have been checked. *Conclusion*: Sensitivity analysis has been presented and demonstrated appropriately.	/IRR/ /PDD/	OK	OK
B.4.4.20. Were only variables that constitute more than 20% of either total project costs or	*Description:* Yes, factors which constitute more than 20% of total project revenue were subjected to reasonable variation	/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.
total project revenues subjected to reasonable variation? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 17)	*Justification of evidence:* PDD and worksheet have been checked. *Conclusion:* All the factors which constitute more than 20% of total project revenue are subjected to reasonable variation.	/PDD/		
B.4.4.21. Have parameters, constituting less than 20% of total project costs or revenues, been identified with potential material impact on the financial parameter? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 17) *Describe whether those parameters are considered in the sensitivity analysis?*	*Description:* Variable i.e. operation and maintenance cost that constitute less than 20% of total project revenue has also been subjected to sensitivity analysis and it is identified with potential material impact on the financial parameter. *Justification of evidence:* PDD and worksheet have been checked. *Conclusion:* O&M cost has also been subjected to variation in sensitivity analysis.	/IRR/	OK	OK
B.4.4.22. Is the range of variation reasonable in the specific context of the project activity, taking into consideration historic trends in the business sector? (EB 55 Annex 1, § 109; EB 62 Annex 5, § 18) *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:* Range of variation considered is reasonable for the project activity Justification of evidence: worksheet has been checked and found that considered variations in the respective parameters are appropriate. *Conclusion:* No CAR/CL is necessary	/IRR/	OK	OK
B.4.5. **Barrier analysis Step 3 or SSC additionality assessment**				
B.4.5.1. Are there any barriers given which have a	*Description:* Not Applicable	/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.
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.*	*Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary			
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:* Not Applicable *Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary	/PDD/	OK	OK
B.4.5.3. Has the unavailabilty of means of finance for the proejct been described and adequately substantiated? Do evidences doubtlessly prove that the financing of the project was assured only due to the benefit of the CDM? (EB 55 Annex 1, §§ 116, 137, EB 50 Annex 13, § 9)	*Description:* Not Applicable *Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary	/PDD/	OK	OK
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:* Not Applicable *Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary	/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.
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:* Not Applicable *Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary	/PDD/	OK	OK
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:* Not Applicable *Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary	/PDD/	OK	OK
B.4.5.7. Has it been demonstrated in an objective way how the CDM alleviates each of the identified barriers to a level that the project is not prevented anymore from occurring by any of the barriers? (EB 50 Annex 13, § 5)	*Description:* Not Applicable *Justification of evidence:* PDD *Conclusion:* No CAR/CL is necessary	/PDD/	OK	OK
B.4.5.8. Would provision of additional financial means lead to the mitigation of the barrier(s) demonstrated? (EB 50 Annex 13, § 7)	*Description:* Not Applicable *Justification of evidence:* PDD	/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.
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. .	*Conclusion:* No CAR/CL is necessary			
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:* Common practice analysis does not seem to conform to step 4 of additionality tool. *Justification of evidence:* PDD has been checked. *Conclusion:* Subject to closure of CAR B15.	/PDD/	~~CAR B15~~	OK
B.4.6.2. To what extent similar projects have been undertaken in the relevant region? (EB 55 Annex 1, § 120(b))	*Description:* Common practice analysis is not conforming to step 4 of Additionality Tool. *Justification of evidence:* PDD has been checked. *Conclusion:* Subject to closure of CAR B15.	/PDD/	~~CAR B15~~	OK
B.4.6.3. In case similar projects are identified, are there any key differences between the proposed project and existing or ongoing projects and what kind of differences are observed? (EB 55 Annex 1, § 120(c))	*Description:* Common practice analysis is not conforming to step 4 of Additionality Tool *Justification of evidence:* PDD has been checked. *Conclusion:* Subject to closure of CAR B15.	/PDD/	~~CAR B15~~	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: *Description:* Applied, CDM methodology is ACM0002 and all equations applied are properly justified in the PDD. Moreover the emission factor has been used as per the latest version of tool to calculate emission factor for an electricity system. *Justification of evidences:* The section B.6.1 has been assessed against the requirements of applied methodology and tool and found correct. *Conclusion:* The equations applied are correct and appropriate.	/PDD/ /ACM 0002/ /CDM # 5/	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)?	*Description:* Applied approved CDM methodology is ACM0002 and all equations applied are properly justified in the PDD. Moreover the emission factor has been used as per the latest version of tool to calculate emission factor for an electricity system. *Justification of evidences:* It is checked by VT during the desk	/PDD/ /ACM 0002/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
(EB 55 Annex 1, §§ 90–91) *Assess the correct selection and application of methodological choices. Describe whether proper justification has been provided (based on the choice of the baseline scenario, context of the project activity and other evidence provided) and whether the correct equations have been used reflecting the relevant methodological choices.*	review that equations are applied as per the CDM methodology ACM0002 and referred tools thereof. The section B.6.1 has been assessed against the requirements of applied methodology and found correct. *Conclusion:* Selection of applied methodology is correct and the correct equations have been used.			
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:* There is no project emission involved in the proposed project activity. *Justification of evidences:* As per the applied methodology ACM 0002. Project emission is prescribed as zero. *Conclusion:* Project emission calculation is complying with the applied methodology.	/PDD/ /XLS/ /ACM 0002/	OK	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 addressed by the methodology? (EB 55 Annex 1, § 77)	*Description:* No. The DOE has assessed all the aspect of project implementation during site visit and desk review and thus found that the proposed project activity implementation does not lead to GHG emission within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission reductions, which are not addressed by the methodology. *Justification of evidences*: The site visit observation has been assessed against the methodological requirements and tools referred therein. *Conclusion:* All the possible sources of GHG emissions are assessed and accounted in the project description and project complies with the requirement of EB 55 Annex 1, § 77.	/PDD/ /ACM 0002/ /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.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:* Plant Load Factor (PLF) is defined ex-ante in the webhosted PDD however a CAR is raised to justify the PLF value against the requirement of EB 48 annex 11 in the section B.5 of the webhosted PDD. *Justification of evidences:* PDD has been checked and resulted in CAR B13. *Conclusion:* CAR B13 is raised.	/PDD/ /PLF/	~~CAR B13~~	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) *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.*	*Description:* All the parameters, equations particularly ex-ante fixed parameter i.e. Operating Margin emission factor for NEWNE grid, Build Margin emission factor for NEWNE grid and Combined Margin CO_2 emission factor for NEWNE grid are thoroughly checked and found derived based on conservative assumptions. The emission factor is calculated based on the data from CEA version 05. *Justification of evidences:* The section B.6.2 of the PDD has been assessed against the applied methodology and tools referred therein. CEA data base is publically available data which is issued by government and thus considered authentic. *Conclusion:* All the assumptions used are correct and conservative in nature.	/PDD/ /XLS/ /cea/	OK	OK
B.5.6. Are all ex-ante calculation values for monitoring parameters (as defined as per chapter B.7.1) reasonable?	☒ All “Values of data to be applied for the purpose of calculating expected emissions reductions” are considered to be reasonable, applicable and conservative.	/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.**
(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*	☐ The following mistakes have been identified in this context:			
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 VT has covered all the aspect of project, assessed each source and sink relevant to the project activity. VT has also carried out the site visit. Based on above assessment and site visit observations VT made the opinion that emission reductions resulting from proposed project activity would be real, measurable and give long-term benefits related to the mitigation of climate change. *Justification of evidences:* Whole the project description and ER calculations are assessed against the requirement of applied methodology and tools. The grid emission factor is based on the publicly available source (CEA) while the net electricity supplied to the grid is being monitored, thus the emission reductions are real and measurable. *Conclusion:* Emission reductions from proposed project will be real, measurable and give long-term benefits related to the mitigation of climate change.	/PDD/ /XLS/	OK	OK
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	*Description:* All the relevant monitoring parameters have been	/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.**
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.*	given in the PDD, as required by the methodology. Selection of the parameters not to be monitored is also in line with the applied methodology requirements. *Justification of evidence:* VT has checked the applied methodology requirements and also conducted the site visit and interviews. *Conclusion:* All monitoring parameters are covered as per the applied methodology.	/ACM 0002/ /IM01/		
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 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*	*Description:* The means of monitoring of the parameters are clearly and transparently described. The parameter $EG_{y,}$ i.e. the net electricity supplied to the grid which will be determined by using electricity exported and imported to/from the grid. The unit used, to calculate EG_y is MWh/year. However The accuracy class of the meters and monitoring frequency are not mentioned in the section B.7.1 of the webhosted PDD. PP is requested to mention the same along with data archiving procedure, Hence CAR B16 is raised. *Justification of Evidences:* DOE has assessed all the parameters against CDM methodology ACM0002 and found them described adequately in the PDD as per the requirement of methodology and PDD guidelines. *Conclusion:* Pending closure of CAR B16.	/PDD/ /ACM 0002/	~~CAR B16~~	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.**
g) *QA/QC procedures* *are appropriately described and in compliance with the requirements of the methodology..*				
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	/PDD/	OK	OK
B.6.4. Have all means of implementing the monitoring plan, e.g. equations necessary for ex-post emission reduction calculation, been described clearly and in line with the methodology? (EB 55 Annex 1, §§ 123(b), 124) *Check whether all necessary equations have been provided in the PDD. PI. consider that ex-post and ex-ante calculations might be different.* *Please consider that additional equations might be necessary to calculate auxiliary parameters.*	*Description:* The equations described in section B.6.1 for ex-post emission reductions are complete and in line with the methodological requirements. Moreover equations are framed in accordance with the monitoring plan implemented at the site locations. *Justification of evidences:* The VT has verified the monitoring plan during site visit and also assessed the suitability of equations against the monitoring plan and methodological requirements. *Conclusion:* The equation used are appropriate and in line with implemented monitoring plan and methodology used.	/PDD/ /ACM 0002/ /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.6.5. 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:* As evidenced during site visit, monitoring plan as described in the section B.7. of PDD is not in line with the actual monitoring practice. PP is requested to change the monitoring plan accordingly. Moreover as per the site visit it was found that the power generated from the WTGs is being fed to grid using a step up transformer (690/33 KV), which is not identical with the webhosted PDD, hence PP is requested to correct the same. *Justification of evidences:* CAR B17 has been resulted from observation during site visit. *Conclusion:* Pending closure of CAR B17	/PDD/ /IM01/	~~CAR B17~~	OK
B.6.6. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activit 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:* The QA/QC procedures are identified at the site visit by the DOE and same is described in the PDD in section B.7. The QA/QC procedures described are in accordance to common industry practice and the power purchase agreements between GFL and respective state authority. Moreover annual calibration of all the meters would be carried out. *Justification of evidence:* The QA/QC procedures are verified during site visit by the DOE and assessed against the methodology and PPA requirements. *Conclusion:* DOE has come to the conclusion that QA/QC procedures are appropriate and sufficient and thereby it will ensure that emission reductions achieved from the project activity can be reported ex-post and verified. However pending closure of CAR B16, hence please refer to checklist item B.6.2.	/PDD/ /ACM 0002/ /PPA/	~~CAR B16~~	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.6.7. 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 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.*	*Description:* The project O&M responsible company i.e. Suzlon Energy limited and PP (GFL) are ISO 9001 certified and as mentioned in the PDD all the data and reports for maintaining accuracy will be done as per ISO 9001 procedures. Data will be archived for two years beyond each crediting period. *Justification of evidences:* VT has conducted the site visit and interviews to check the procedure for data management. *Conclusion:* The procedures for data management are found sufficient and appropriate.	/PDD/ /IM01/	OK	OK
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:* PDD does not contain description regarding information about the age and average lifetime of the equipments based on manufacturer's specifications and industry standards, and existing and forecast installed capacities, load factors and efficiencies. Also, Please refer checklist item B.4.4.5 *Justification of evidences:* PDD has been checked and resulted in CAR A2 and CL B9. *Conclusion:* Pending closure of CAR A2 and CL B9.	/PDD/	~~CAR A2, CL B9~~	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:* Crediting period start date to be not a reasonable date. Justification of evidence PDD has been checked. Conclusion: However, later CAR C1 was raised.	/PDD/	~~CAR C1~~	OK
D. Environmental Impacts *Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the 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:* No. there is no host party requirements for EIA for wind energy projects in India. *Justification of evidences:* Same has been cross checked with notification S.O. 1533, 14th September 2006. *Conclusion:* Project activity complies with the requirement.	/PDD/ /moef/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
D.1.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been carried out and if applcable duly approved? (EB 55 Annex 1, §§ 131–133) *Check the EIA and its approval, if applicable.*	Description: No. there is no host party requirements for EIA for wind energy projects in India. Justification of evidences: Please refer to D.1.1. Conclusion: Project activity complies to the requirement.	/PDD/ /EIA/	OK	OK
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: No, there are no host party requirements for EIA for wind energy projects in India. Justification of evidences: Pl. refers to D.1.1. Moreover DOE has assessed the project design and found that project will not create any adverse effect on environment. Conclusion: Project activity complies to the requirement.	/PDD/ /EIA/	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:* There are no transboundary environmental impacts as assessed by the DOE. Moreover please refer to checklist item no. D.1.1 *Justification of evidences:* Based on site visit observations and desk review conclusions. *Conclusion:* Project complies with the requirements.	/PDD/ /EIA/ /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.
E. Stakeholder Comments *The DOE should ensure that stakeholder comments have been invited with appropriate media and that due 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:* Yes, relevant stakeholder groups (local villagers, Local Government authorities) have been consulted/LSC/ prior to publication of PDD for GSP but PP is requested to submit the newspaper article which was published to invite the stakeholders for the stakeholders meeting also MoM and attendance sheet of the meeting held on 2010-03-16, hence CL E1 is raised. *Justification of evidences:* Same has been cross checked during the site visit by interacting some of the Local stake holders. *Conclusion:* Pending closure of CL E1.	/PDD/	~~CL E1~~	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*	*Description:* Relevant stakeholder groups (local villagers, Local Government authorities) have been consulted/LSC/ prior to publication of PDD for GSP. However, The description given in section E.1 and E.2 of the webhosted PDD is not filled up as per the CDM filling guidelines i.e. How and when the invitations are sent/published is missing from section E.1. Identified relevant stakeholder is missing from section E.1. Identification of stakeholders that have made comments is missing in section E.2. Also, PP is requested to submit the newspaper article which was published to invite the stakeholders for the stakeholders meeting along with MoM and attendance sheet of the meeting held on 2010-03-16. *Justification of evidences:* PDD is checked.	/PDD/	~~CL E1~~	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
the PDD is complete; *(c) The project participants have taken due account of any comments received and have described this process in the PDD.*	*Conclusion:* Closure of CL E1 is pending.			

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 proposed project activity not undertaken as a CDM project activity	☒	☒	Proposed project activity is not attractive option without CDM revenue as concluded by investment analysis in section B.5 of PDD.	/IRR2/	☒	The investment analysis has been assessed by the validation team and found appropriate in the context of the proposed project activity.
Continuation of the current situation	☒	☐	This alternative is not facing any type of barrier.	/ADD/	☒	Continuation of the current situation i.e. import of power from the NEWNE grid in the absence of the proposed project activity is the only baseline scenario applicable as per the applied methodology.

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 comments	
					Correctness of value applied	Comment
Plant Capacity	10.5	MW	Equipment Supply Agreement signed with Suzlon Energy Ltd. dt. 2009/08/08	/PSD/	☒	The value is based on the offer letter and Equipment Supply Agreement signed by the company with Suzlon Energy dated 2009/08/08. The value is correct and appropriate for the project. The provided data source has been checked and the applied value was verified. Capacity of the plant was physically verified during the site visit.
Project life	20	Years	Letter from Suzlon Energy Ltd. dated 2009/08/13	/ADD5/	☒	Operating life of equipment is based on the letter issued by manufacturer of windmill, viz., Suzlon Energy Ltd. Incidentally this is also in conformity with the operating life given by RERC. Hence, the value considered by PP is correct and appropriate for the project. Operating life of equipments were also checked from the registered projects available on UNFCCC website, which are having the same type of WTGs.

☐	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 comments	
					Correctness of value applied	Comment
Project cost	647.50	INR In million	Offer letter from Suzlon Energy Ltd. dt. 2009/04/16	/ADD1/	☒	Project cost includes land, WTGs, tower, transformer, electrical, erection and commissioning cost. Project developer has submitted the offer letter and the document has been verified. Since the offer letter was available with the PP at the time of decision making, consideration of this cost is in conformity with Guidance 6 of Annex 5, EB 62. Since the actual cost of the project (based on purchase orders issued) is INR 615.07 mn., which is only about 5.2% less than the project cost considered for additionality demonstration and the project remains additional even when the actual project cost is taken into consideration, validation team considers the cost as correct and appropriate for the project activity. The cost works out to INR.61.7 mn./MW. Validation team observed that the project loses its additionality only when the cost drops down by ~29%, i.e., INR 459.7 mn. (INR 43.8 mn./MW) and a comparison of the cost assumed by other registered and under validation projects reveals that the

☐	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 comments	
					Correctness of value applied	Comment
						cost has been ranging between INR 60 mn. /MW to INR 66 mn./MW[10]. The cost of the project is, therefore, well within this range and appropriate. Therefore, the project cost is correct and appropriate
Financing pattern - Debt - Equity	Nil 647.50	INR In million	Chartered Accountant's certificate dated 2011/08/02	/ADD3/	☒	The project is funded entirely by equity. A certificate to this effect has been submitted by the project developer from the Chartered Accountant. Based on the above, validation team accepted the financing pattern.
Plant Load Factor	20.97	Percent	PLF Report by Power & Energy Consultants dated 2009/05/06 Actual Generation since COD of the project activity till June 2011	/ADD6/ /PLF/	☒	PLF is based on the assessment made by a third party engineering consultant, which was available to PP at the time of decision making (conformity to guidance 6 of Annex 5, E 62 and Annex 11, EB 48). The PLF estimated by the consultant is marginally higher than the PLF (21% with 1% line loss) recommended by RERC vide its tariff order dt. 2009/01/23 (p.47). Moreover, while RERC has recommended 1.25% derating 6th, 10th, 14th and 18th years, project developer has not reckoned any derating at all. Hence, the PLF considered is

[10] Capital cost considered by projects already registered was observed as follows: Allgrow Ventures (Reg. No. 4992) – Rs. 60.01 mn./MW; Gupta Coal Fields (Reg. No. 3494) – Rs. 60.67 mn./MW; Vikram Traders (Reg. No. 3575) – Rs. 62.67 mn./MW; KPR Fertilizers (Reg. No. 3445) – Rs.60.37 mn./MW; Asian Fabricks (Reg. No. 5076) – Rs. 66.10 mn./MW; Sindhya Infrastructure (Reg. No.3046) – Rs.66.33 mn./WTG; Terapanth Foods (Reg. No. 4050) – Rs.65.00 mn./WTG

☐	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 comments**	
					Correctness of value applied	**Comment**
						conservative. Validation team also requisitioned the actual generation achieved and observed that the WTGs achieved average PLF of only 18.91% from Sept. 2009 to Jun.2011. Since the a) PLF is based on the third party estimation and therefore conforms to Annex 11, EB 48 and guidance 6 of Annex 5, EB 62; b) project loses its additionality only when the WTGs achieve PLF of 29.75% on a sustained basis right through the operating life; and c) actual PLF achieved during the first year of operation is only 18.91% Further, VT also checked the performance of the other registered projects since their commissioning.

Ref No	MW	PLF in PDD	Duration	PLF Achieved During Verification
267	5 MW	19%	16 Jun 2003 - 01 Jul 2006	12.25%
			02 Jul 2006 - 01 Sep 2008	15.85%
			02 Sep 2008 - 30 Jun 2011	14.71%
447	6.25	19%	01 Aug 2003 - 31 Jul 2006	17.98%

☐	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 comments	
					Correctness of value applied	Comment

	MW		01 Aug 2006 - 31 Dec 2008	16.43%
			01 Jan 2009 - 31 Dec 2010	17.00%
570	11.35 MW	18%	29 Sep 2003 - 01 Dec 2006	10.94%
571	10.6 MW	20.5%	30 Mar 2003 - 30 Nov 2006	15.71%
564	7.5 MW	21.3%	01 Apr 2004 - 31 Oct 2006	18.89%
			01 Nov 2006 - 31 Dec 2008	16.48%
310	85.2 MW	23.78%	01 Jul 2004 - 30 Jun 2006	17.23%
			01 Jul 2006 - 31 Aug 2011	15.64%
1168	60 MW	22.00%	15 Mar 2010 - 31 Aug 2011	7.33%
			01 Apr 2007 - 31 Aug 2009	6.20%
243	14.8 MW	18%	01 Aug 2001 - 01 May 2006	11.78%
			02 May 2006 - 01 Oct 2007	19.15%
			02 Oct 2007 - 01 Nov 2009	16.50%
			02 Nov 2009 - 31 Jul 2011	13.90%
481	2.5 MW	19%	02 Aug 2003 - 31 Jul 2006	18.00%
			01 Aug 2006 - 30 Sep 2009	17.22%
			01 Oct 2009 - 31 May 2011	12.50%

From the above, it can be seen that none of the projects have achieved the PLF of 20% in a long run also. Hence, it is reasonable to adopt the PLF of 20.97% which is appropriate, conservative and acceptable to Validation team.

☐	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 comments	
					Correctness of value applied	Comment
Tariff per kWh	3.48	In INR	RERC Tariff Order dated 2009/01/23 (p.44)	/RERC/	☒	Tariff is based on the RERC tariff order dated 2009/01/23. The order provides for a tariff of INR 3.48/kWh in the first year escalated by Re. 0.02/kWh till 12th Year and Re. 0.01/kWh from 13th year onwards. Validation team checked the order and found the tariff considered as correct. VT has also checked the other recently registered project found the tariff considered as below:

Reference no	Tariff considered (INR/kWh)
5531	3.48
5090	3.87
5845	3.87
5794	3.87

Moreover, as per the tariff order issued by RERC on 2009/07/16 (which was not available at the time of decision making) wind power projects commissioned during 2009-10 are entitled to a tariff of INR.4.28/kWh. Therefore, PP was asked to subject the tariff to sensitivity analysis. The analysis reveals that the IRR will go up to 9.17% if the applicable tariff is taken into consideration

☐	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 comments	
					Correctness of value applied	Comment
						(as against the benchmark of 13.51%) and the project, therefore, will continue to remain additional. The tariff is, therefore, valid, appropriate and correct.
O &M cost per WTG per annum	1.60	INR in million	Offer letter from Suzlon Energy Ltd. dt. 2009/04/16	/ADD1/	☒	O&M cost is based on the offer letter received from Suzlon Energy, a copy of which has been submitted to DOE. The value has been verified and found to be correct. Validation team cross checked the O&M cost with other registered projects (set up with 1.5 MW Suzlon windmills) and observed that Suzlon has been charging O&M cost ranging from INR 1.5 mn. to INR 1.7 mn/WEG of 1.5 MW capacity[11]. Candidate project has considered the O&M cost at INR 1.6 mn./ WTG, which is within the range. As per the O&M agreement, the O&M cost is INR 1.4 mn/WTG. Validation team observed that the project remains additional even if the O&M cost is considered at INR 1.4 mn./WTG in that the IRR goes up from 5.62% to 6.26% (benchmark being 13.51%). Therefore, the value considered is correct, appropriate and conservative.

[11] O&M cost considered by projects already registered was observed as follows: Allgrow Ventures (Reg. No. 4992) – Rs. 1.46 mn./WTG; Gupta Coal Fields (Reg. No. 3494) – Rs. 1.50 mn./WTG; Vikram Traders (Reg. No. 3575) – Rs. 1.50 mn./WTG; Shree Naman Developers (Reg. No. 3238) – Rs. 1.55 mn.; KPR Fertilizers (Reg. No. 3445) – Rs.1.65 mn./WTG; Deccan Cements (Reg. No. 3981) – Rs. 1.69 mn./WTG; Asian Fabricks (Reg. No. 5076) – Rs. 1.70 mn./WTG; Terapanth Foods (Reg. No. 4050) – Rs. 1.70 mn./WTG

☐	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 comments	
					Correctness of value applied	Comment
Free O&M period	1.0	Year	Offer letter from Suzlon Energy Ltd. dt. 2009/04/16	/ADD1/	☒	Offer letter provides for 1 year free O&M period. Validation team observed that in all other cases, Suzlon has been offering 1 to 2 years free O&M period. Hence, validation team accepted the free O&M period of 1 year as correct and appropriate.
O&M escalation	6	Percent	Offer letter from Suzlon Energy Ltd. dt. 2009/04/16	/ADD1/	☒	Offer letter issued by Suzlon clearly provides for 6% escalation in the O&M cost. As per the O&M agreement signed by the company, the O&M escalation is only 5%. Validation team checked other registered projects and majority of them have assumed 5% escalation only (for example Projects 3238, 3445, 3494, 3964, 4050, 4992 and 5076 have all assumed 5% escalation). It was also observed that the project remains additional even if the O&M escalation is considered at 5% (with O&M cost being taken at INR 1.4 mn./MW as per O&M agreement) in that the IRR goes up from 5.62% to 6.58% only. As the escalation is based on offer letter (conformity with guidance 6 of Annex 5, EB 62) and the project remains additional even if the actual O&M cost and escalation is taken into consideration, validation team accepted the input parameter as correct and appropriate
Insurance /WTG	0.22	Rs in million	Premium receipt of Gudepanchgani project of the company dated. 2008/02/18	/ADD7/	☒	The insurance premium is based on the premium paid by the company for its Gudepanchgani project. The insurance premium works out to ~3 bps. Validation team observed that this amount ranges from 0.08% to 0.25% in registered projects. Validation

☐	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 comments	
					Correctness of value applied	Comment
						team observed that insurance is not a critical factor in that even if the entire insurance premium is completely removed, the project will remain additional. Hence, the value is considered correct and appropriate.
Salvage Value	64.75	Rs in million	Estimation.	..	☒	Salvage value has been estimated at 10% of the value of investment. As the residual value of assets is only INR 5.6 mn. in the terminal year, provision of salvage value at INR 64.75 mn. takes into consideration the residual value and the potential profit expected on sale and hence conforms to guidance 4 of Annex 5, EB 62. Salvage value is in conformity with internationally accepted principles. Hence, the value is correct and appropriate.
Book Depreciation	5.28	Percent	Sch.XIV, Companies Act, 1956	/ca/	☒	Book depreciation rate is based on Schedule XIV of Companies Act, 1956. The company adopts the same rate in its books lso. The rate has been verified and found to be correct
Depreciation (IT) - WTG - Other machinery - Civil works	 80 15 10	Percent	Income Tax Rules	/it/	☒	Depreciation provided for computation of IT liability is based on the rates prescribed in Appendix I of Income Tax Rules. The rates have been verified and found to be correct.
Income Tax (Regular) 2009-10	33.99[12]	Percent	Finance Act 2009	/it/	☒	The rate is based on the Income tax rate applicable to the financial year 2009-10, i.e., the year in which investment

[12] http://www.caclubindia.com/forum/income-tax-rates-slabs-from-a-y-2001-02-to-a-y-2013-14-132138.asp

☐	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 comments	
					Correctness of value applied	Comment
						decision was taken. The tax rate is correct and appropriate.
Service Tax	10.30[13]	Percent	Finance Act 2009	/it/	☒	The rate is based on the service tax rate applicable to the financial year 2009-10, i.e., the year in which investment decision was taken. The tax rate is correct and appropriate
Tax holiday	10	Years	Income Tax Act	/it/	☒	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.

[13] http://www.servicetax.gov.in/st-proc-home.htm

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

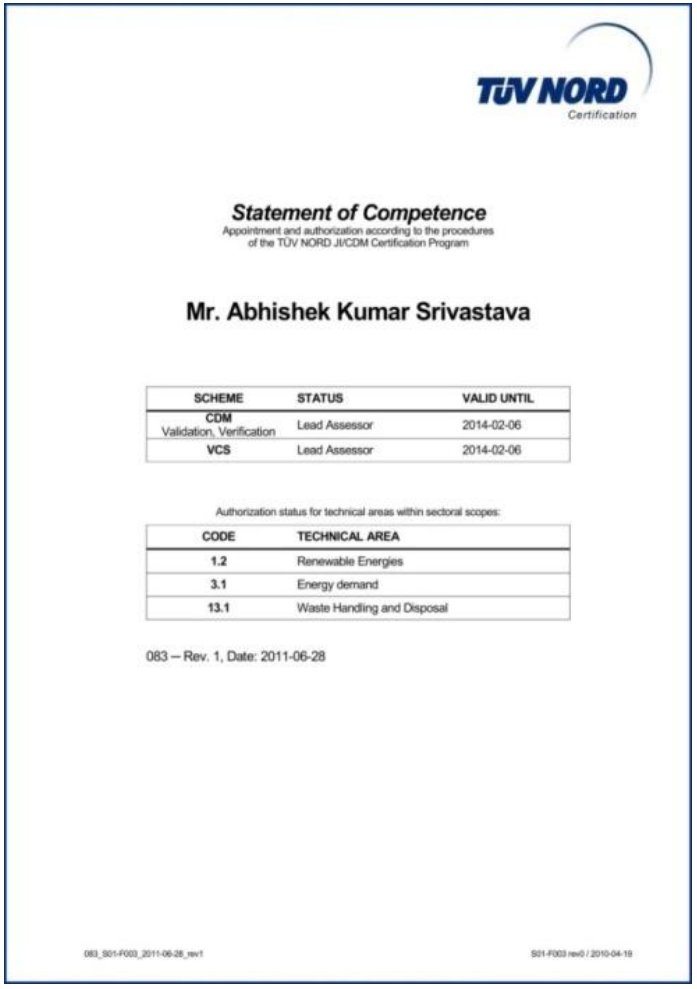
(§§ 40-42, VVM Version 1.2)

☒	No comments were received during the global stakeholder consultation period on re-webhosted PDD
☐	Comments were received during the global stakeholder consultation period. The comments (in unedited form) and the consideration/response of the validation team are presented below:

Comment No.:	Comment by:	Inserted on:	Subject	Comment *)	Action taken by the validation team to take due account on the comment *)	Conclusion (incl. CARs CLs or FARs)

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

ANNEX 6: STATEMENTS OF COMPETENCE OF 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. Abhishek Kumar Srivastava

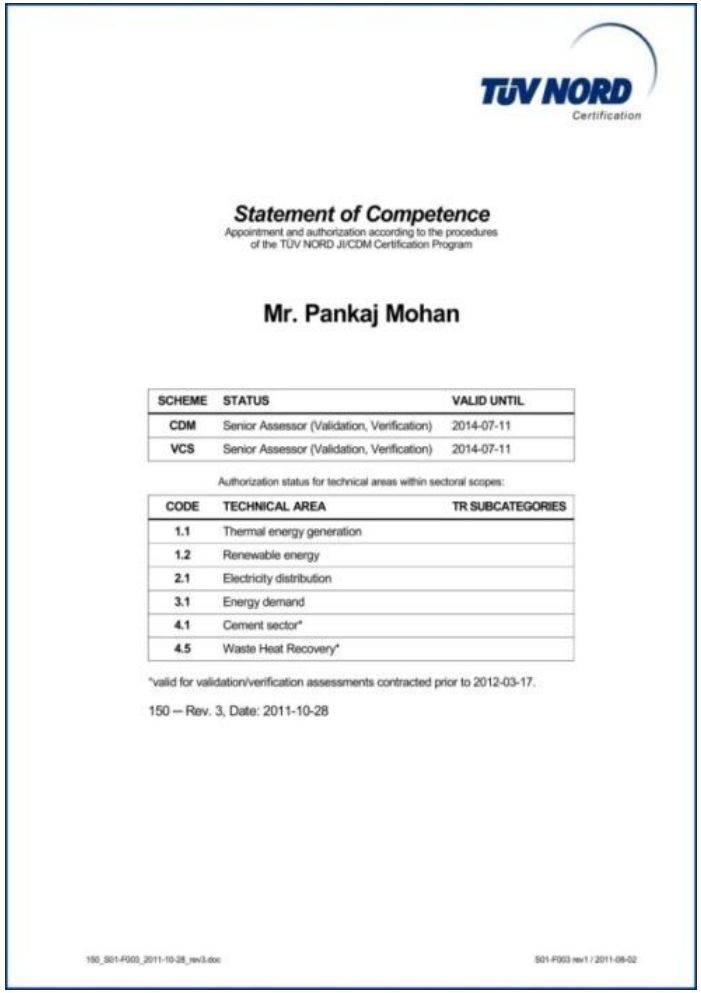
SCHEME	STATUS	VALID UNTIL
CDM Validation, Verification	Lead Assessor	2014-02-06
VCS	Lead Assessor	2014-02-06

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy demand
13.1	Waste Handling and Disposal

083 – Rev. 1, Date: 2011-06-28

083_S01-F003_2011-06-28_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. Pankaj Mohan

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2014-07-11
VCS	Senior Assessor (Validation, Verification)	2014-07-11

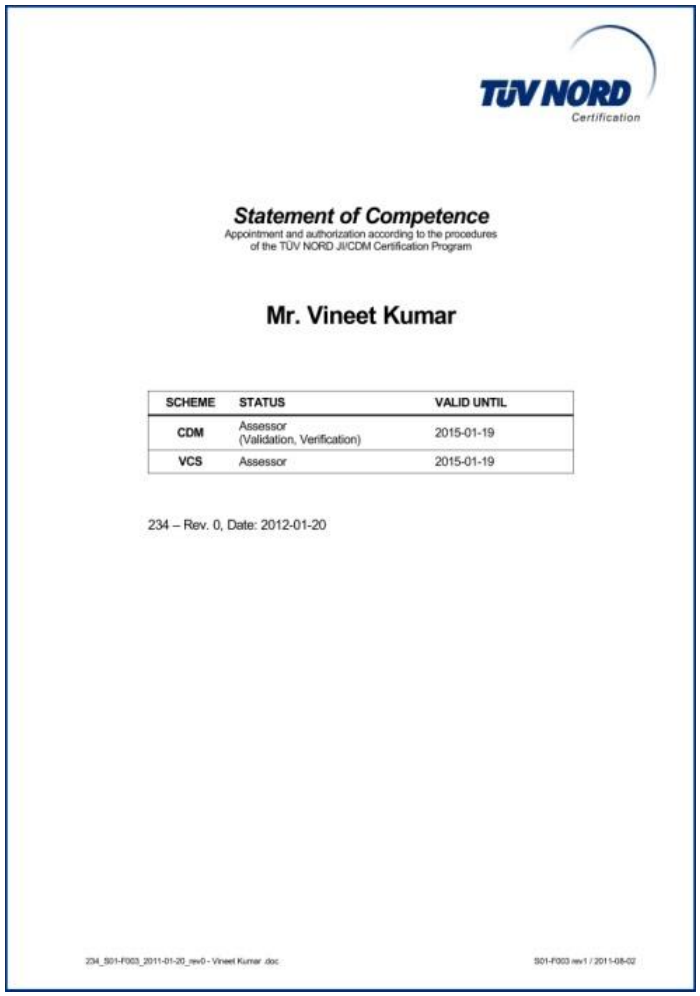
Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal energy generation	
1.2	Renewable energy	
2.1	Electricity distribution	
3.1	Energy demand	
4.1	Cement sector*	
4.5	Waste Heat Recovery*	

*valid for validation/verification assessments contracted prior to 2012-03-17.

150 – Rev. 3, Date: 2011-10-28

150_S01-F003_2011-10-28_rev3.doc S01-F003 rev1 / 2011-08-02



TÜV NORD Certification

Statement of Competence

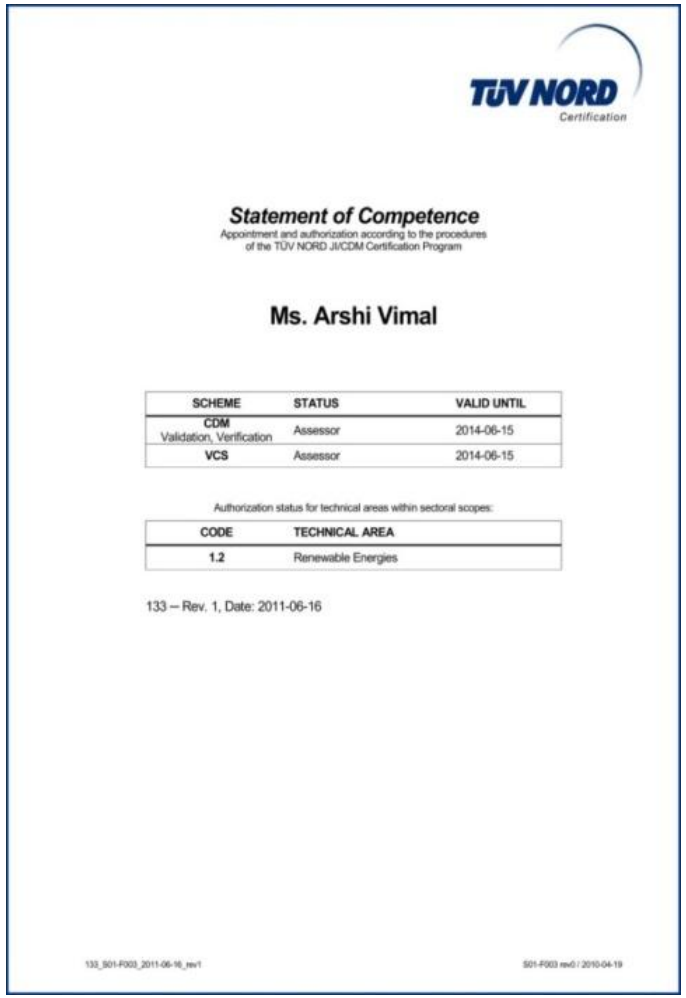
Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Vineet Kumar

SCHEME	STATUS	VALID UNTIL
CDM	Assessor (Validation, Verification)	2015-01-19
VCS	Assessor	2015-01-19

234 – Rev. 0, Date: 2012-01-20

234_S01-F003_2011-01-20_rev0 - Vineet Kumar .doc S01-F003 rev1 / 2011-08-02



TÜV NORD Certification

Statement of Competence

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

Ms. Arshi Vimal

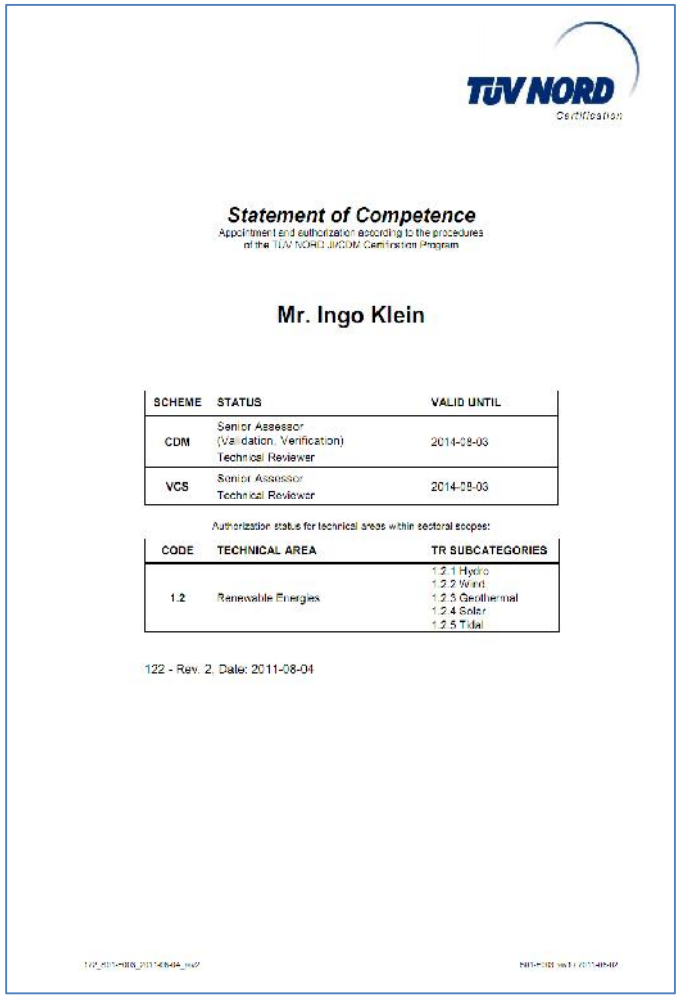
SCHEME	STATUS	VALID UNTIL
CDM Validation, Verification	Assessor	2014-06-15
VCS	Assessor	2014-06-15

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies

133 – Rev. 1, Date: 2011-06-16

133_S01-F003_2011-06-16_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

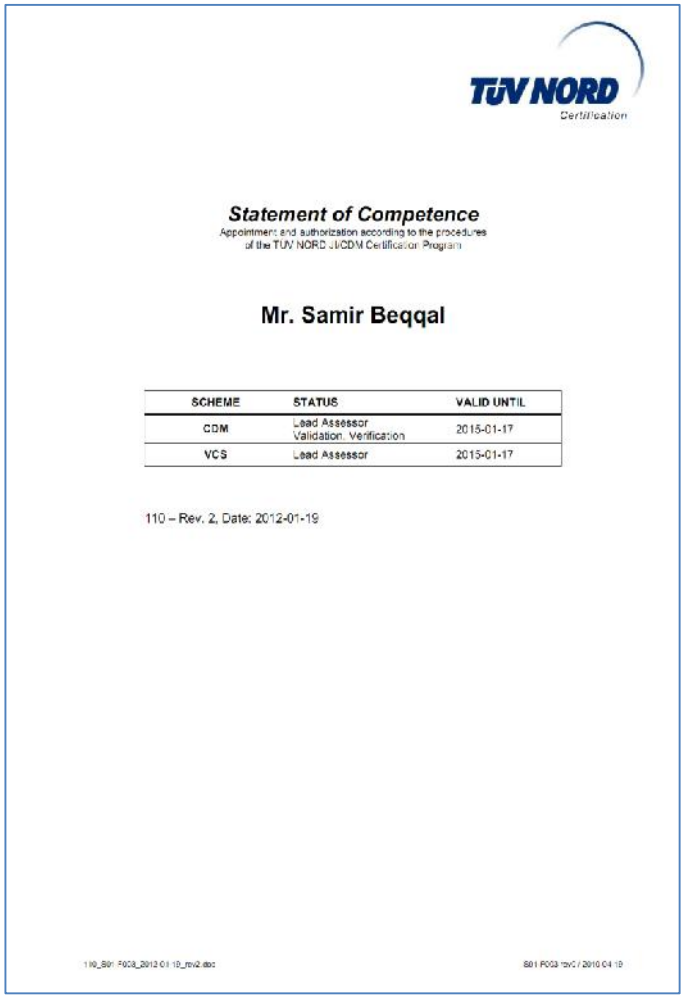
Mr. Ingo Klein

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2014-08-03
VCS	Senior Assessor Technical Reviewer	2014-08-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal

122 - Rev. 2, Date: 2011-08-04



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