

ANNEX 3

ASSESSMENT

REGARDING POST REGISTRATION CHANGES

VAAYU (INDIA) POWER
CORPORATION PRIVATE LIMITED

VAAYU INDIA WIND POWER PROJECT IN
GUJARAT

Report No: 8109817473 – 13/029

Date: 2013-05-14

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Assessment Report on post registration changes	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
	8109817473 – 13/029	0	2013-05-14	2013-05-14
Project:	Title:	Registr. date:	UNFCCC-No.:	
	Vaayu India Wind Power Project in Gujarat	2011-05-09	4700	
Project Participant(s):	Name:	Party:		
	Vaayu (India) Power Corporation Private Limited	India		
Applied methodology/ies:	Title:	No.:	Scope:	
	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	ACM0002 ver. 11	1/1.2	
Post Registration Changes:	Type of requested changes	Number of changes	Prior Approval required	
	<input type="checkbox"/> Temporary deviations from the MP	-	<input type="checkbox"/>	
	<input type="checkbox"/> Temporary deviations from the MM	-	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> Corrections that do not affect the project	02	<input type="checkbox"/>	
	<input type="checkbox"/> Change to the start date of the crediting p.	-	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> Permanent changes from the MP	01	<input type="checkbox"/>	
	<input type="checkbox"/> Permanent changes from the MM	-	<input type="checkbox"/>	
	<input type="checkbox"/> Design changes to the project activity/PoA	-	<input type="checkbox"/>	
Revised PDD:	Title:	Attached in TC:	Attached clean:	
	Vaayu India Wind Power Project in Gujarat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Assessment team / Technical Review and Final Approval	Assessment Team:	Technical review:	Final approval:	
	Mr. Jimmy Sah (TL/TE) Mr. Sukanta Das (TM/TE) Mr. Prasad Jakkaraju (TM/TE) Mr. Stefan Winter (TM/TE)	Mr. Ingo Klein Mr. Samir Beqqal	Mr. Ingo Klein	
Assessment Opinion:	<input type="checkbox"/> The post registration changes require prior Approval by the Board			
	<input checked="" type="checkbox"/> The post registration changes do not require prior Approval by the Board			
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Abbreviations

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
DNA	Designated National Authority
EB	CDM Executive Board
GHG	Greenhouse gas(es)
PA	Project activity
PDD	Project Design Document
PoA	Programme of Activities
PRC	Post Registration Changes
QC/QA	Quality control/Quality assurance
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

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1 OBJECTIVE / SCOPE

Vaayu (India) Power Corporation Private Limited has commissioned the TÜV NORD JI/CDM Certification Program (CP) to assess post registration changes of the project

“Vaayu India Wind Power Project in Gujarat”

This report serves for all kind of post registration changes as defined in the PS.

In this case it serves as an annex to the verification report.

2 GENERAL CHARACTERISTICS

2.1 Project Characteristics

As this assessment was carried out as part of the 2nd verification of the project activity please refer to chapter 2 of the verification report.

For a detailed project description please refer to the registered PDD and/or the latest verification report (to which this report is attached).

2.2 Overview of Post Registration Changes

Within this report post registration changes as listed in Table 2-2 are assessed.

Table 2-2: Overview Post Registration Changes

#	Applicable as of / from - to	Type of post registration change ¹⁾	Description
1	201x-xx-xx to 201x-xx-xx	TDfrMP	N/A
2	201x-xx-xx to 201x-xx-xx	TDfMM	N/A
3	2012-03-01	CrPDD	<ul style="list-style-type: none"> Change in coordinates for 3 WECs Change in monitoring and organization structure
4	201x-xx-xx	ChSD	N/A
5	2012-03-01	PCfrMP	Change in calibration frequency from 1 year to 3 year
6	201x-xx-xx	PCfMM	N/A
7	201x-xx-xx	CoPD	N/A
8	201x-xx-xx	CstAR	N/A

- ¹⁾
- TDfrMP : Temporary deviation from registered monitoring plan
 - TDfMM : Temporary deviation from the monitoring methodology
 - CrPDD : Corrections to the registered PDD
 - ChSD : Change to the start date of the crediting period
 - PCfrMP : Permanent changes from registered Monitoring Plan
 - PCfMM : Permanent changes from Monitoring Methodology
 - CoPD : Changes to the project design of a registered project activity / PoA
 - CstAR : Changes specific to afforestation or reforestation

2.3 Assessment team members and technical reviewers

As this assessment was carried out as part of the 2nd verification of the project activity please refer to the main part of the verification report.

2.4 Assessment Steps

The *assessment of post registration changes* consisted of the following steps:

- Appointment of team members and technical reviewers
- A desk review of the registered and revised PDD^{/PDD/} submitted by the client and additional supporting documents
- On-Site assessment (if required)
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Resolution of corrective actions (CARs / CLs) (if any)
- Final reporting
- Technical review
- Final approval.

In this case all activities were carried out as part of the 2nd verification of this project activity.

2.5 Review of Documents

The registered as well as the revised PDD and supporting background documents related to the project design and the post registration changes were reviewed.

As far as required the assessment 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.

2.6 Follow-up Interviews

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

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 2-4.

Table 2-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project proponent representatives Project consultant	<ul style="list-style-type: none"> - Details of the project validation - Project history - Technical details of plant - Intended / implemented changes from the previous project design - Impact of changes on the additionality justification - Impact on the monitoring of the project - Editorial issues of the revised PDD

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

2.7 Resolution of Clarification and Corrective Action Requests

2.7.1 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 intended / implemented changes,
- there is a risk that the changes cannot be approved by the UNFCCC or that emission reductions would not be able to be verified and certified after the implementation of the changes.

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

2.7.2 Assessment

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

The final reporting step starts after resolution of the raised CARs and CLs. 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 assessment opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in the context of the respective chapters.

2.8 Technical review

Before submission of the final assessment report a technical review 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 verification team and thus not involved in the decision making process up to the technical review.

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

2.9 Final approval

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

Only after this step the notification or the report can be forwarded to the UNFCCC (in case of a positive validation opinion).

3 CHANGES THAT DO NOT AFFECT THE PROJECT DESIGN

3.1 Assessment of Changes

Requested Deviations / Changes #1

- Type of change(s):
- ☐ Temporary Deviation from Monitoring Plan
 - ☐ Temporary Deviation from Monitoring Methodology
 - ☒ Corrections that do not affect the project design
 - ☐ Permanent Change from Monitoring Plan
 - ☐ Permanent Change from Monitoring Methodology
 - ☐ Changes specific to afforestation or reforestation

A. Description of post registration change

Start Date: Please provide the start date of the change	2012-03-01	End Date: Please provide the end date of the change, if applicable	NA
Description: Please give a detailed description of the changes	<ul style="list-style-type: none"> Change in coordinates for 3 WECs 		

B. Assessment of post registration change – Corrections that do not affect the project design

Correctness: Please assess whether the corrected information (incl. ex-ante values) is an accurate reflection of actual project information.	<p>The geo coordinates for 3 WECs were observed to be different than the registered PDD. The revisions in the coordinates are minor. Further the project is implemented and the correct coordinates have now been incorporated.</p> <p>The WECs are as follows;</p> <ul style="list-style-type: none"> EIL/800/09-10/1760 EIL/800/09-10/1761 EIL/800/09-10/1778 <p>The change in the coordinates does not have any effect on the project implementation.</p>
MP/MM Compliance : Please check whether the corrected parameters are in accordance with the MM and/or MP	Change in the coordinates does not have any impact in monitoring or implementation, thus the changes are in accordance to the Monitoring methodology/Monitoring plan.

Requested Deviations / Changes #1

Appendix 1 PS: Check whether the affect the design of the PA.	The change in geo coordinates for the 3 WEC locations confirms to para 1 of Appendix 1 of the PS, The technical configurations of the WECs are as per the registered PDD, thus there is no change in the project design.
C. Revised PDD	
Rev. of PDD: Check whether the changes have been fully addressed in a revised PDD.	<input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD. <input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.
D. Prior Approval	
Prior approval: Assess whether the change requires prior approval of the board	<input type="checkbox"/> <i>The post registration change requires prior approval</i> <input checked="" type="checkbox"/> <i>The post registration change does not require prior approval</i>

Requested Deviations / Changes #2

Type of change(s):	<input type="checkbox"/> <i>Temporary Deviation from Monitoring Plan</i> <input type="checkbox"/> <i>Temporary Deviation from Monitoring Methodology</i> <input checked="" type="checkbox"/> <i>Corrections that do not affect the project design</i> <input type="checkbox"/> <i>Permanent Change from Monitoring Plan</i> <input type="checkbox"/> <i>Permanent Change from Monitoring Methodology</i> <input type="checkbox"/> <i>Changes specific to afforestation or reforestation</i>		
A. Description of post registration change			
Start Date: Please provide the start date of the change	2012-03-01	End Date: Please provide the end date of the change, if applicable	NA
Description: Please give a detailed description of the changes	<ul style="list-style-type: none"> Change in monitoring and organization structure 		
B. Assessment of post registration change – Corrections that do not affect the project design			

Requested Deviations / Changes #2

Correctness: Please assess whether the corrected information (incl. ex-ante values) is an accurate reflection of actual project information.	The operational and organizational structure being followed for the project has been confirmed during discussions with the PP and the O&M personnel at the site. The revised structure considers a direct contact of the O&M personnel to the Corporate CDM Team which had a Customer Relation-ship manager in between. The revised structure forms a part of continuous improvement by the PP to steam line CDM monitoring.
MP/MM Compliance : Please check whether the corrected parameters are in accordance with the MM and/or MP	Change in the operation and Management structure leads to enhancing the overall monitoring for the project and is in accordance to the Monitoring methodology/Monitoring plan.
Appendix 1 PS: Check whether the affect the design of the PA.	Change in the operation and Management structure confirms to para 1 of Appendix 1 of the PS, The technical configurations of the WECs are as per the registered PDD, thus there is no change in the project design.
C. Revised PDD	
Rev. of PDD: Check whether the changes have been fully addressed in a revised PDD.	<input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD. <input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.
D. Prior Approval	
Prior approval: Assess whether the change requires prior approval of the board	<input type="checkbox"/> <i>The post registration change requires prior approval</i> <input checked="" type="checkbox"/> <i>The post registration change does not require prior approval</i>

Requested Deviations / Changes #3

- Type of change(s):
- ☐ Temporary Deviation from Monitoring Plan
 - ☐ Temporary Deviation from Monitoring Methodology
 - ☐ Corrections that do not affect the project design
 - ☒ Permanent Change from Monitoring Plan
 - ☐ Permanent Change from Monitoring Methodology
 - ☐ Changes specific to afforestation or reforestation

A. Description of post registration change

Requested Deviations / Changes #3

Start Date: Please provide the start date of the change	2012-03-01	End Date: Please provide the end date of the change, if applicable	
Description: Please give a detailed description of the changes	<p>As per the registered PDD, the monitoring for the project occurs in 2 steps:</p> <ul style="list-style-type: none">Cluster metering at 33 KV sub-stationMetering of main meter at Enercon 220KV sub-station which is subsequently connected to Moti paneli Sub-station of GEDA (Gujarat State Energy Development Agency). <p>The meters at the above locations are sealed and maintained by GEDA/GETCO.</p> <p>The registered PDD mentions that all calibration shall be conducted at an annual frequency. However in the monitoring period it is observed meter will be calibrated once in three years. The letter^{/CAL/} from GEDA regarding the change of calibration frequency of the meter is checked by the assessment team and found correct. Further the responsibility for calibration is with GEDA/GETCO, and the PP has not control on the same.</p> <p>Change in the frequency of the calibration, i.e. 3 years now forms the part of revised PDD.</p>		
B. Assessment of post registration change – Permanent changes from MP or MM			
MM compliance: Please check in case of changes to the registered MP, whether they are in compliance with the MM.	The monitoring methodology does not include a specific requirement regarding the calibration frequency of the electricity meter. The change of the present calibration frequency of the meters does not affect the monitoring methodology. The source of Net electricity export is still the share certificate of the GEDA.		
Later version of MM: Please check in cases where compliance with a later version of the MM is demonstrated that the conservativeness of the monitoring and verification is not affected.	The changes do not refer to a later version of the applied methodology.		

Requested Deviations / Changes #3

<p>Accuracy: Please give a detailed assessment whether the change is likely to lead to a reduction in the accuracy of the ER calculation.</p>	<p>The source of net electricity exported to the grid and used for ER calculation is the share certificate provided by GEDA (third party). Based on the share certificate invoice is raised to GEDA by individual project owner.</p> <p>The monitoring source for the individual parameters is as per the registered PDD and onsite practice. Thus the change in the calibration frequency of the cluster meter does not affect the accuracy of the emission reduction calculation. Further the change of the calibration frequency is not in the hand of the PP. Besides meters did not show any wrong measurement so far as calibrations showed that the meters are within permissible limits. Besides based on previous guidance EB 61 Annex 21 §17 (c) a calibration of once in three years was deemed plausible by UNFCCC. Based on that DOE considers that the accuracy is not affected by the revised calibration procedure.</p>
<p>Conservative-ness: Please give a detailed assessment whether conservative assumptions or discount factors have been applied to ensure that ER will not be overestimated.</p>	<p>The change in practice does not impact the emission reduction calculation as the final values for net electricity export is monitored based on the Share certificate issued by GEDA which is as per the registered PDD and thus the conservativeness of emission reduction is not affected with the change in the calibration frequency of the all meters.</p> <p>Further the change of the calibration frequency is not in the hand of the PP. Besides meters did not show any wrong measurement so far as calibrations showed that the meters are within permissible limits. Besides based on previous guidance EB 61 Annex 21 §17 (c) a calibration of once in three years was deemed plausible by UNFCCC. Based on that DOE considers that the change is applicable only for the revision in frequency of calibration and the emission reduction calculations remains unchanged.</p>
<p>Appendix 1 PS: Check if the changes fall under one of the scenarios of appendix 1 of the PS.</p>	<p>The calibration frequency of the meters is not in the hand of PP. Thus the change of calibration frequency falls under scenario 5 (a) of EB 70 Annex 2; appendix 1.</p> <p>Due to this change the PDD has been updated. As the project was registered under VVM the PDD has been updated from VVM template to VVS template as per UNFCCC FAQ. The DOE has checked the updated new VVS PDD and can confirm that there is no material change to the PDD due to the transfer besides the applied changes. All changes made have been highlighted.</p>
<p>C. Revised PDD</p>	
<p>Rev. of PDD: Check whether the</p>	<p><input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD.</p>

Requested Deviations / Changes #3	
changes have been fully addressed in a revised PDD.	<input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.
D. Prior Approval	
Prior approval: Assess whether the change requires prior approval of the board	<input type="checkbox"/> <i>The post registration change requires prior approval</i> <input checked="" type="checkbox"/> <i>The post registration change does not require prior approval</i>

3.2 Related Findings

No findings have been identified in this context.



4 CHANGE TO THE START DATE OF THE CREDITING PERIOD

The post registration changes do not fall under this category.



5 CHANGES TO THE PROJECT / PROGRAMME DESIGN

The post registration changes do not fall under this category.

6 SUMMARY OF ASSESSMENT OPINIONS

The below listed changes have occurred after the registration of the project / PoA.

Type of Change occurred	Total No. of changes	No. of changes which require prior approval
<input type="checkbox"/> Temporary deviations from the MP		
<input type="checkbox"/> Temporary deviations from the MM		
<input checked="" type="checkbox"/> Corrections that do not affect the project	02	
<input type="checkbox"/> Change to the start date of the crediting p.		
<input checked="" type="checkbox"/> Permanent changes from the MP	01	-
<input type="checkbox"/> Permanent changes from the MM		
<input type="checkbox"/> Design changes to the project activity / PoA		
<input type="checkbox"/> Changes specific to AR projects		

None of the changes requires prior approval of the Board.

Essen, 2013-05-14



Mr. Jimmy Sah
TÜV NORD JI/CDM CP
Assessment Team Leader

Essen, 2013-05-14



Mr. Ingo Klein
TÜV NORD JI/CDM CP
Final Approval



7 REFERENCES

All references are listed in the Verification Report to which this assessment is attached.

APPENDIX

Competence statements of involved personnel



APPENDIX: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL

All personal involved are listed in the Verification Report to which this assessment is attached