Validation opinion for post registration changes

Title of project activity:		
"Wind Power Project in Gujarat, India"		
CDM reference number:	DNV project No.:	
7369	PRJC-468300-2013-CCS-IND	
Date:	Validation of the changes were conducted:	
26/08/2013	☐ Prior to the commencement of a verification of the project activity ☒ When performing a verification of the project activity	
Work carried out by (name & signature):	Work verified by (name & signature):	Approved by (name & signature):
Sharmistha Shome	Gaurav Srivastava	Ole A. Flagstad

Overview of post registration changes

Type of post registration change		**Are the changes of a type specified in Appendix 1 of the CDM Project Standard?** Note: In case of "No", prior approval by the EB is required
A: Temporary deviations from the registered monitoring plan and/or monitoring methodology		☐ Yes ☐ No ☐ No post registration change of this type
Applicable period for proposed deviations (inclusive):	From DD/MM/YYYY start date of the earliest included deviation to DD/MM/YYYY end date of the latest included deviation)	
B: Corrections		☒ Yes ☐ No ☐ No post registration change of this type
C: Changes to the start date of the crediting period *Prior approval by the CDM EB is not required in case of (a) bringing forward the start date up to one year earlier or (b) postponing the start date by up to one year (by up to two years for project activities in LDCs).*		☐ Yes ☐ No ☐ No post registration change of this type
Proposed start date of the crediting period:	DD/MM/YYYY (changed from DD/MM/YYYY)	
D: Permanent changes from the registered monitoring plan or applied methodology (refer to section C)		☒ Yes ☐ No ☐ No post registration

	change of this type
E a): Changes to the project design of a registered project activity (refer to section D)	☒ Yes ☐ No ☐ No post registration change of this type
E b): Changes to the programme design of a registered PoA	Note: All changes to the programme design of a registered PoA require prior approval by the EB. ☐ No post registration change of this type
F. Changes specific to afforestation or reforestation project activities	☐ Yes ☐ No ☐ No post registration change of this type

A. Temporary deviations from the registered monitoring plan and/or monitoring methodology

Not applicable

Corrections

A.1 Description of corrections

The name of the Enercon substation has been corrected to Rasaliya (Kotda Jadodar) instead of Lalpur (Dharampur) in the revised PDD, version 6, dated 8 August 2013.

A.2 Assessment of corrections

The correction is related to the correction of the name of substation which reflects the actual project information and has not impact of the applied methodology and monitoring plan.

B. Changes to the start date of the crediting period

Not applicable

C. Permanent changes from the registered monitoring plan or applied methodology

C.1 Description of the revision of the monitoring plan

As per the registered PDD monitoring plan, the energy meters are to be calibrated annually. The actual frequency of the calibration is once in three years.

C.2 Assessment of the revision of the monitoring plan

The calibration of energy meters are under the control of state electricity board and beyond project participant's control. It has been verified from the letter to Enercon (India) Limited by Gujarat Energy Transmission Corporation Limited, dated 4 January 2012, and the power purchase agreements that the calibration frequency of energy meters is once in 3 years and shall be performed by state electricity board. Thus, in line with paragraph 5 (b) of Appendix 1

of CDM project standard, the mentioned change in the calibration frequency of the energy meters do not require prior approval by the Board.

D. Changes to the project or programme design of a registered project activity or PoA

D.1 Description of the changes as compared to the description in the registered PDD

The actual installed capacity of the project activity is lower than the registered PDD. As per the registered PDD of the project activity, the installed capacity is of 36MW comprising of 45 WEGs of 0.8MW capacity each. It has been observed during the verification of the project activity that the actual installed capacity of the project activity is 32 MW, comprising of 40 WEGs of 0.8 MW each.

D.2 Assessment of the changes to the project design (*applicable to project activities only*)

Assessment of when the changes occurred

The change in the installed capacity of the project activity has occurred during the project installation phase. 5 numbers of WEGs were not installed, thereby reducing the project activity installed capacity to 32 MW from the mentioned 36MW in the registered PDD.

Assessment of the reasons for these changes taking place

It has been confirmed during the on-site visit and interview that due to the non-conducive soil condition of the respective locations of those 5 WEGs, these machines could not be installed. The actual installed capacity of the project activity has been verified from the commissioning certificates.

Assessment of whether the changes would have been known to the project participants prior to registration of the project activity

The project participant was not aware of the non-conducive soil condition at the 5 WEGs' locations during the project activity registration.

Assessment of how the changes may impact the overall operation/ability of the project activity to deliver emission reductions as stated in the PDD

The reduction in the installed capacity by 4 MW has resulted to lower emission reduction. The revised estimated emission reduction per years is 65 429 tCO_2.

D.3 Assessment of the impact of the changes to the project design (*applicable to project activities only*)

In the case of a project activity, do the changes adversely impact any of the following?	☐ The applicability and application of the applied methodology under which the project activity has been registered ☐ The additionality of the project activity ☐ The scale of the project activity ☒ None of the above

Assessment of impacts of the changes on the applicability and application of the applied methodology under which the project activity has been registered

The change in the installed capacity of project activity from 36 MW to 32 MW does not impact the applicability of the methodology, ACM0002, version 12.3.0.

Assessment of impacts of the changes on the additionality of the project activity

The change in the capacity due to reduction of WEGs by 5 numbers has resulted to decrease in project cost and electricity generation by the project activity which reducing the flow of revenue from electricity sale. The additionality of the project activity has been assessed based on the changes of parameter- i) project cost, ii) installed capacity, iii) electricity generation and iv) project revenue. The decrease in installed capacity and thereby reduction in electricity generation has resulted to reduction in estimated emission reduction. The project cost per MW capacity, as verified from the registered PDD is INR 57.61 million. Thus, the project cost for 32MW of installed capacity is INR 1843.46 million and the equity IRR calculated based on the revised input values is 9.29%. As verified from the registered PDD, the equity benchmark of the project activity is 17.78%. Hence, the revised equity IRR of 9.29% is less than the applied and registered benchmark of 17.78%. Since, the investment analysis has been performed on the basis of cost per MW, the revised equity IRR, with revised investment cost and installed capacity, remains same with the registered PDD's equity IRR. The sensitivity analysis also demonstrates that the equity IRR of the project activity does not crosses the benchmark of 17.78% with 5% fluctuation of project cost, tariff rate, plant load factor and operation and maintenance. Thus, the additionality of the project activity is not changed.

Assessment of impacts of the changes on the scale of the project activity

The change in the installed capacity does not impact the scale of the project activity as the same has been registered under large scale CDM projects.

Validation opinion

DNV confirms that the change in the project design and calibration frequency and correction of substation location does not impact the additionality, applicability of monitoring methodology nor results to over-estimation of emission reduction. The information given in the PDD has been correctly transferred to VVS template.

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