




## Validation opinion for post registration changes

Title of project activity:		
Grid Connected Wind Energy Generation at Andhra Pradesh		
CDM reference number:	DNV project No.:	
5921	PRJC-442024-2013-CCS-IND	
Date:	Validation of the changes were conducted:	
23 March 2013	<input type="checkbox"/> Prior to the commencement of a verification of the project activity <input checked="" type="checkbox"/> When performing a verification of the project activity	
Work carried out by (name & signature):	Work verified by (name & signature):	Approved by (name & signature):
 Thamizharasi Kaliaperumal	 K. V. Raman	 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 (refer to section A)		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 (refer to section B)		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> No post registration change of this type
C: Changes to the start date of the crediting period (refer to section C) <i>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).</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 D)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No post registration change of this type

E a): Changes to the project design of a registered project activity (refer to section E)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> No post registration change of this type
E b): Changes to the programme design of a registered PoA (refer to section E)	Note: All changes to the programme design of a registered PoA require prior approval by the EB. <input checked="" type="checkbox"/> No post registration change of this type
F. Changes specific to afforestation or reforestation project activities (refer to section F)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> No post registration change of this type

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

Not applicable.

## **B. Corrections**

Not applicable.

## **C. Changes to the start date of the crediting period**

Not applicable.

## **D. Permanent changes from the registered monitoring plan or applied methodology**

### **D.1 Description of the revision of the monitoring plan**

The revision of the monitoring plan pertains to revising the calibration frequency of the energy meters (both cluster meters and substation meters), which are part of the monitoring plan of the project activity, from once in a year to once in five years.

The project activity “Grid Connected Wind Energy Generation at Andhra Pradesh” is implemented as per the registered PDD and applies the “Baseline and monitoring methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” version 12.2.0.

During the site visit, it was observed that the calibration frequency of the energy meters (both cluster meters and substation meters), is not in line with the frequency stated in the registered PDD version 04 dated 17 February 2012. In the registered PDD, the calibration frequency of the energy meters is stated to be annual, as per the power purchase agreement (PPA) signed with the State Electricity Board (Central Power Distribution Company of Andhra Pradesh Limited, also known as APCPDCL).

The project participant now are proposing a change in the calibration frequency of energy meters from annual to once in five years since the meters are not under the control of the project participant and the calibration are done by the State Electricity Board (APCPDCL). As

per the PPA signed with the APCPDCL, calibration of energy meters is solely under the control of the APCPDCL and the project participant does not have any control over it. Also as per article 4 of the PPA, the project participant is not provided with the authority to conduct or appoint a third party for calibration / testing of the energy meters. Though the PPA mentions an annual calibration frequency, in the actual practice, the calibration is done at the convenience and requirement of APCPDCL, and is beyond annual basis.

Since the calibration procedure is under the scope of APCPDCL, the original monitoring plan cannot be followed and thus the calibration frequency is proposed to be changed to once in a five years. This revised frequency of five years is justified as it is in compliance with the guidelines provided in the “Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006”, which states in section 18 – ‘Calibration and periodical testing of meters’ that *the energy meters shall be tested once in five years*.

The applied monitoring methodology ACM0002, version 12.2.0 does not specify any specific time period for the calibration / testing of the equipment. DNV confirms that the revision proposed by the project participant is in line with the requirements mentioned in the Central Electricity Authority metering regulations. Central Electricity Authority (CEA) is a Statutory Body attached to the Ministry of Power, Government of India.

It has to be noted that maintaining the accuracy of energy meters is in the interest of both the APCPDCL and the project participant. Since the APCPDCL make payments to the project participant based on the energy meter readings and since once in five years calibration is acceptable to the APCPDCL, it is understood that the accuracy of the energy meter readings is not compromised in any way by changing the calibration frequency from once in a year to once in five years.

The project participant has submitted the revised PDD (version 5.0 dated 12 March 2013) for the change in the calibration frequency of energy meters (both cluster meters and substation meters), from annual to once in five years, which has been verified against the requirement of the “Project Standard - Appendix 1, Changes that do not require prior approval by the board” section 3 “Permanent changes from the registered monitoring plan”, point 5 (a) “*Change of calibration frequency or practice for monitoring equipment not within the control of project participants*” and found to be acceptable.

## **D.2 Assessment of the revision of the monitoring plan**

***The proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revisions***

The proposed revision in the monitoring plan is the change of calibration frequency of energy meters (both cluster meters and substation meters), from one year to five years. As stated in the monitoring methodology ACM0002 version 12.2.0, “*All measurements should be conducted with calibrated measurement equipment according to relevant industry standards*”, the energy meters are and will be calibrated in line with CEA metering regulations, which stipulates that “*the energy meters shall be calibrated and tested once in five year*”. Hence the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision of “calibration frequency change from once in a year to once in five years”.

***The proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity whilst ensuring the conservativeness of the emission reductions calculation***

As stated above, the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity whilst ensuring the conservativeness of the emission reduction calculation.

***The findings of previous verification reports, if any, have been taken into account***

Not applicable, as this post registration change (PRC) is being sought during the first monitoring period.

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

Not applicable.

**F. Changes specific to afforestation or reforestation project activities**

Not applicable.

**Validation opinion**

DNV confirms that the change in the calibration frequency of the energy meters (both cluster meters and substation meters), from annual to once in five years does not impact the applicability of monitoring methodology. In addition the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision.

The above mentioned change falls in to the category of Appendix 1 of Project Standard and therefore does not require prior approval of the Executive Board. DNV requests the Executive Board to accept the above mentioned change.

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