
VALIDATION OPINION FOR REVISION OF REGISTERED MONITORING PLAN

Essel Mining & Industries Limited

**75MW wind power project in
Maharashtra by Essel Mining
Industries Limited**

UNFCCC Ref. No. 1115

SGS Climate Change Programme

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Date of Issue:		Project Number:	
07-06-2010		CDM.VER1012	
Project Title:			
75MW wind power project in Maharashtra by Essel Mining Industries Limited			
Organisation:		Client:	
SGS United Kingdom Limited		Essel Mining & Industries Limited	
Subject:			
Validation Opinion for Revision of Registered Monitoring Plan:			
[X]	Proposed revision includes revisions proposed by the PP/DOE		Distribution/Document Control
	Proposed revision only includes the request by the CDM EB		
	Proposed revision includes not only request by the CDM EB but also additional revisions proposed by the PP/DOE		
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Date: 09-06-2010			
Revision Number:	Date:	Number of Pages:	
0	10-09-2009	14	
1	11-09-2009	14	
2	16-12-2009	20	
3	16-04-2010	22	
4	07-06-2010	23	

Abbreviations

CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CMS	Central Monitoring Station
DOE	Designated Operational Entity
ER	Emission Reduction
JMR	Joint Meter Reading Statement
LCS	Local Control System
MP	Monitoring Plan
MR	Monitoring Report
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Company Limited
O & M	Operation and Maintenance
PDD	Project Design document
PPA	Power Purchase Agreement
PE	Project Emissions
PP	Project participant
QA / QC	Quality Assurance / Quality Control
RMP	Revised Monitoring Plan
UNFCCC	United Nations Framework Convention on Climate Change
WTG	Wind Turbine Generator

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1. Validation Opinion

Paragraph 57 of the modalities and procedures for the CDM allows project participants to revise monitoring plans in order to improve accuracy and/or completeness of information, subject to the revision being validated by a Designated Operational Entity.

SGS United Kingdom Ltd has been contracted by Essel Mining & Industries Limited to perform such a validation of the revision of monitoring plan according to the procedure detailed in Annex 28 to EB 49 meeting report; the registered monitoring plan is part of the PDD of registered CDM project 75MW wind power project in Maharashtra by Essel Mining Industries Limited and UNFCCC ref. no 1115. The purpose of a validation is to have an independent third party assessment of the revision of monitoring plan. In particular, the level of accuracy and/or completeness in the proposed revision of the monitoring plan, and the conformity with approved monitoring methodology applicable to the project activity.

By applying the proposed revision of monitoring plan, registered monitoring plan for monitoring of Net Electricity supplied to MSEB facility (EGy) with reference to the actual monitoring practice is rectified and/or further clarified.

The current CDM project activity is connected to the State Grid Authority sub-stations through nine feeders where other WTGs of other promoters (not part of the project activity) are also connected. Thus, apportioning of the generated electricity by the project WTGs at grid interface is carried out to calculate electricity exported by the project activity. Net electricity supplied to grid is calculated based on the measured values of "export" and "import" on the Maharashtra State Electricity Distribution Company Limited (MSEDCL) energy meter, where joint reading is taken by Suzlon Infrastructure Services Limited representative (Suzlon is the appointed O&M Contractor for the project activity by the project proponent) and MSEDCL officials. Since this grid energy meter is common to project activity and other wind turbines that are not under this project activity, the apportioning of net electricity is required to be done based on electricity generated from individual wind turbines. The apportioning of the "Net Electricity supplied to MSEB facility" by the project activity will be carried out by the grid authority MSEDCL as per the Terms and Conditions mentioned in the Power Purchase Agreement and project proponent does not have any influence on the same.

Monitoring method for parameter "Net Electricity supplied to MSEB facility" as mentioned in the Section B.7 of the registered PDD has been changed from continuously "Measured" to "Calculated" on the basis of continuously metered data and monthly recorded data to reflect actual monitoring procedure. "Net Electricity supplied to MSEB facility (EGy)" specific to the respective WTGs will be measured through the energy meter installed by the State Grid authority Maharashtra State Electricity Distribution Company Limited at the grid interface where the project generated power is fed to the regional grid. The monitoring of net electricity export in such way will be cross verifiable with the Joint Meter Reading statements and power invoices. The same figures for the net electricity (EGy) mentioned in the monthly JMR sheet will be considered for the calculation of emission reductions for the project activity.

To improve the transparency and completeness of monitoring procedure and consistency of the applied Monitoring Methodology ACM0002 version 06, the following measured parameters have been included in section B.7.1 of registered PDD:

- (1) Total Electricity exported to MSEB (MSEDCL) facility by all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i ($EG_{GENTOTAL, i}$)
- (2) Total Electricity imported from MSEB (MSEDCL) by all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i ($EG_{GAUXTOTAL, i}$)
- (3) Electricity generation at the controller of individual WTG, j , of the project proponent connected to feeder, i ($EG_{CONTROLLER, i, j}$)
- (4) Total of electricity generation at the controller of all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i ($EG_{CONTROLLER, TOTAL, i}$)

Theoretically, there should be no impact on the materiality of emissions reduction calculation achieved by this project activity because the revision is aimed at inclusion of the all monitoring parameters in monitoring plan as per the applicable methodology for better transparency.

This revision improves the accuracy of information provided regarding the monitoring procedure and consistency in the registered PDD.

By applying this said revision the emission reductions are quantified accurately. Other small changes are made to comments which do not have any significant effect rather any effect on ER calculations and are merely more descriptive and are incorporated to achieve clarity.

This revision improves the accuracy of information provided and consistency in the registered PDD and the monitoring plan.

Furthermore, we confirm that:

(a) the proposed revision points have been described, and an assessment has been provided to substantiate the reasons for each of the proposed revision points of the registered monitoring plan, using objective evidence;

(b) 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 accuracy of all individual controllers is as good as that of measurement equipments as foreseen in the original monitoring plan;

(c) 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.

(d) the activity is undergoing first verification and therefore there are no previous reports to take into account.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature:

A handwritten signature in blue ink, appearing to read 'Siddharth', with a long horizontal stroke extending to the right.

Name: Siddharth Yadav

Date: 09-06-2010

2. Introduction

2.1 Objective

Paragraph 57 of the modalities and procedures for the CDM allows project participants to revise monitoring plans in order to improve accuracy and/or completeness of information, subject to the revision being validated by a Designated Operational Entity.

SGS United Kingdom Ltd has been contracted by Essel Mining & Industries Limited to perform such a validation of the revision of monitoring plan according to the procedure detailed in Annex 28 to EB 49 meeting report; the registered monitoring plan is part of the PDD of registered CDM project 75MW wind power project in Maharashtra by Essel Mining Industries Limited and UNFCCC ref. no1115. The purpose of a validation is to have an independent third party assessment of the revision of monitoring plan. In particular, the level of accuracy or completeness in the proposed revision of the monitoring plan, and the conformity with the approved monitoring methodology applicable to the project activity.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM) and the host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

SGS reviewed the project design documentation (revised monitoring plan), using a risk based approach and conducted follow-up interviews.

2.2 Scope

The scope of the validation is defined as an independent and objective review of revision of monitoring plan. The information in these documents is reviewed against the Kyoto Protocol requirements, the UNFCCC rules and associated interpretations.

The validation is not meant to provide any consulting towards the Client/the project. However, SGS may issue requests for clarifications and/or corrective actions which may provide input for improvement of the project design.

2.3 GHG Project Description

Refer to <http://cdm.unfccc.int/Projects/DB/DNV-CUK1178530835.69/view>, the project web page. There is no change in the project activity description. The project was registered on 1st Feb 2008 under UNFCCC ref. no 1115.

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

3.2 Use of the Validation Protocol

The validation protocol used for the assessment is partly based on the templates of the CDM Validation and Verification Manual version 1 (EB44 Annex.3):

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of Verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y/OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). A Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

The validation protocol is attached with the report as Annex 1.

3.3 Findings

As an outcome of the validation process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **Clarification Request (CL)** specifying what additional information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR)**. A CAR is issued, where:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A Forward Action Request (FAR) is raised during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a CL/FAR may result in a CAR. Information or clarifications provided as a result of a CL/FAR may also lead to a CAR.

Corrective Action Requests, Clarification Requests and Forward Action Requests are raised in the draft validation protocol and detailed in a separate form (Findings Overview). In this form, the Project Developer is given the opportunity to address and "close" outstanding CARs and respond to CLs and FARs. The detailed Finding Overview is attached with this document as Annex 2.

3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

4. Validation Findings

4.1 Application of Monitoring Methodology and Monitoring Plan

Type of Revision

The revision of monitoring plan is a result of a recommendation by the DOE as mentioned in section B.7.1 and B.7.2 of registered PDD.

The project activity is using ACM0002, version 06, dated 19th May 2006. The registered monitoring plan is required to be revised as the monitoring procedure in section B.7.1 and B.7.2 was not transparent enough to replicate the actual practice followed at plant site. There are 60 WTGs belonging to the project activity and connected through nine different feeders at the grid sub-station. The current CDM project activity is connected to the State Grid Authority sub-stations through nine feeders where other WTGs of other promoters (not part of project activity) are also connected. Thus, apportioning of the generated electricity by the project WTGs at grid interface is carried out to calculate electricity exported by the project activity. Net electricity supplied to the grid is calculated based on the measured values of “export” and “import” on the Maharashtra State Electricity Distribution Company Limited (MSEDCL) energy meter, where joint reading is taken by Suzlon Infrastructure Services Limited representative and MSEDCL officials. Since this grid energy meter is common to project activity and other wind turbines that are not under this project activity, the apportioning of net electricity is required to be done based on electricity generated from individual wind turbines. The apportioning of the “Net Electricity supplied to MSEB facility” by the project activity will be carried out by the grid authority MSEDCL as per the Terms and Conditions mentioned in the Power Purchase Agreement and project proponent does not have any influence on the same. The same is stated in the revised monitoring plan dated 16/04/2010 at page 30 that “the proposed ‘revision of the registered monitoring plan’ includes detail of monitoring equipments – the energy meters (Main and Check Meters) and the controllers which was a requirement of Article 11 of the PPA as mentioned in the registered monitoring plan to ensure additional clarity.”

As per the existing monitoring plan, the “Net Electricity supplied to MSEB facility” by WTGs connected to exacting feeder is measured and recorded by the energy meters installed at sub-station for specific feeder. In actual case WTGs belongs to project activity along with other WTGs of different promoters are also connected to same feeder and generation by all the WTGs is recorded through a common energy meter installed at the sub-station. In such circumstances it was not clear how the electricity generation by the project activity would be monitored. Also as per the section B.7.1 of the registered PDD, “electricity generation” by project activity was not included as monitoring parameter; this was not found inline with monitoring methodology ACM0002, version 06. The measurement method for parameter “net electricity supplied to MSEB facility (EG_y)” by project activity described as continuous measurement but in actual case this parameter is a calculated one. The procedure to calculate net electricity supplied to MSEB facility (EG_y) by project activity was also not clear from the registered monitoring plan. By applying the proposed revision of monitoring plan ambiguity regarding to the measurement method as discussed in section B.7.1 of the registered monitoring plan has been removed and procedure (apportioning procedure) to calculate “Net electricity supplied to MSEB facility (EG_y)” is included in the revised monitoring plan. Also the following parameters have been included in section B.7.1 of the revised monitoring plan to improve transparency in monitoring procedure and the conformity with approved monitoring methodology applicable to the project activity:

The proposed revision of the monitoring plan ensures that the level of accuracy and completeness in the monitoring and verification process is not reduced as a result of the revisions (details below).

In accordance with the guidance and methodological choice mentioned the monitoring plan of the registered PDD (version 04; dated 07/11/2007) stated the monitoring of following parameter –

Registered PDD		
Sl. No.	Monitoring Parameters	
1.	Net Electricity supplied to MSEB facility (EGy)	Continuous measurement and monthly recording

To improve the transparency and completeness of monitoring procedure for monitoring of Net Electricity supplied to MSEB facility (EGy) by the project activity based on apportioning of the generated electricity by the project WTGs at grid interface and establish consistency between actual monitoring practice at site and applied Monitoring Methodology ACM0002, version 06, the following monitoring parameters have been revised/ included in section B.7 of registered PDD:

Revision in Monitoring Plan			
Sl. No.	Monitoring Parameters		
1.	Net Electricity supplied to MSEB facility (EGy)	Calculated on the basis of continuously measured data and monthly recording.	Now altered, based on apportioning of the generated electricity by the project WTGs at grid interface is carried out to calculate electricity exported by the project activity
2.	Total Electricity exported to MSEB (MSEDCL) facility by all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i (EG_{GEN TOTAL,i})	Continuous measurement and monthly recording	Now included
3.	Total Electricity imported from MSEB (MSEDCL) by all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i (EG_{AUX TOTAL,i})	Continuous measurement and monthly recording	Now included
4.	Electricity generation at the controller of individual WTG, j, of the project proponent connected to feeder, i (EG_{CONTROLLER,i,j})	Continuous measurement and monthly recording.	Now included
5.	Total of electricity generation at the controller of all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i (EG_{CONTROLLER TOTAL,i})	Continuous measurement and summation of monthly recording.	Now included

The proposed revision points are as follows:

- **Total Electricity exported to MSEB (MSEDCL) facility by all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i (**EG_{GEN TOTAL,i}**)**, this parameter would be measured continuously and recorded through the energy meters installed at grid sub-stations for the particular feeder. These meters are calibrated and tested by MSEDCL on annual frequency. Monthly reading for this parameter is furnished by MSEDCL through Master JMR of entire wind farm which is available at plant site.

- **Total Electricity imported from MSEB (MSEDCL) by all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i** ($E_{GAUXTOTAL, i}$), this parameter would be measured continuously and recorded through the energy meters installed at grid sub-stations for particular feeder. These meters are calibrated and tested by MSEDCL on annual frequency. Monthly reading for this parameter is furnished by MSEDCL through Master JMR of entire wind farm which is available at the plant site.
- **Electricity generation at the controller of individual WTG, j, of the project proponent connected to feeder, i** ($EG_{CONTROLLER, i, j}$) this parameter would be measured continuously and recorded monthly for each WTG belongs to project activity through WTG specific panel meters/ LCS meters at Central Monitoring Station (CMS) maintained by O&M contractor Suzlon Infrastructure Services Limited and also measured & recorded through controller (panel meter) of each WTG. Monthly generation report is maintained by Suzlon Infrastructure Services Limited and provided to MSEDCL. This data is also cross verifiable through monthly JMR sheet issued by MSEDCL to the project proponent.
- **Total of electricity generation at the controller of all WTGs (WTGs of project proponent as well as of other promoters) connected to the feeder, i** ($EG_{CONTROLLERTOTAL, i}$) this parameter is measured continuously and recorded monthly for all WTGs of entire wind farm through WTG specific panel meters/ LCS meters at Central Monitoring Station (CMS) maintained by O&M contractor Suzlon Infrastructure Services Limited and also measured & recorded through controller(panel meter) of each WTG. Monthly generation report is maintained by Suzlon Infrastructure Services Limited and the same can be verified through the Master JMR of entire wind farm available at plant site.

The energy meters installed at the grid substation are electronic 3 phase 4 wire type and of 0.20% accuracy class. Installation of these energy meters are governed by the Power Purchase Agreement and completely under control and maintenance of State Electricity Board.

Each WTG has Integrated control panel displays the generation from the individual WTG. The Controllers are micro-processor based intelligent relays which have been specially designed for control of wind turbines, where control functions, data collection and storage, real time grid monitoring and storage and such other functions are integrated. The controller has three current inputs from CT and three voltage inputs from PT. The analog values of current / voltage is converted into digital signal internally using A/D Converters at very high sampling rate. A software program reads these values and displays instantaneous values of parameters such as voltage, current, frequency, power factor, kVA, kVAr and kW. These instantaneous values are then time integrated to display kVAh, kVArh and kWh and displayed / stored. The maintenance of these WTG controllers is controlled by the EMC contractor Suzlon Infrastructure Services Limited.

This proposed revision in monitoring plan does not involve any alteration of project monitoring equipments, rather representing the consistency among actual on site scenario and registered monitoring plan thus there is no possibility of accuracy reduction by this revision in monitoring plan.

According to the Revision in Monitoring Plan the Net Electricity supplied to MSEB facility (EG_y) by the project activity will now be calculated based on continuously measured data and monthly recording as per the following equations –

$$\text{Total electricity generation by all the wind turbines of project proponent } (EG_{GEN, y}) = (\sum EG_{CONTROLLER, i, j} / EG_{CONTROLLERTOTAL, i}) * EG_{GENTOTAL, i} \quad \text{eqn. \#1}$$

$$\text{Auxiliary consumption by all the wind turbines of the project proponent } (E_{AUX, y}) = (\sum EG_{CONTROLLER, i, j} / EG_{CONTROLLERTOTAL, i}) * EG_{GAUXTOTAL, i} \quad \text{eqn. \#2}$$

Then,

$$EG_{GEN, y} = \sum EG_{GEN, y, i} \quad \text{eqn. \#3}$$

$$EG_{AUX,y} = \sum EG_{AUX,y,i}$$

Where,

i - represents the feeders

j - represents the WTGs of the project proponent.

$$\text{Net Electricity supplied to MSEB facility (EGy)} = EG_{GEN,y} - E_{AUX,y}$$

eqn. #4

This is to further clarify that this revision in monitoring plan is proposed only to provide transparency towards monitoring of Net Electricity supplied to MSEB facility (EGy) by the project activity based on apportioning of the generated electricity by the project WTGs at grid interface and neither involve any alteration of monitoring equipment nor emission reduction calculation methodological choice in comparison to the registered monitoring plan. The monitoring equipments will be of same category under the revised monitoring plan, therefore there will be no possibility for lowering accuracy level between registered monitoring plan and the proposed revision in monitoring plan. This is to further confirm that the accuracy of all individual controllers is as good as that of measurement equipments as foreseen in the original monitoring plan. The same is already stated in the revised monitoring plan dated 16/04/2010 at page 29 that “the level of accuracy of the monitoring equipments is not reduced as a result of the proposed revision of the monitoring plan”.

CAR #1 was raised as the project proponent was not submitted the RMP document in track change mode, in response to CAR #1, PP has submitted the revised RMP document in track change mode, which transparently shows the revisions proposed in the monitoring plan. Thus accepted and **CAR #1** was closed out.

The proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity (details below).

All the above changes in the revised monitoring plan should have no impact on the calculation of the emissions reduction achieved by this project activity because the revision is aimed to describe the monitoring procedure in a transparent manner as per the applicable methodology and the data for emission reduction will be considered from monthly JMR sheet issued by MSEDCL. The changes are for further transparency of the monitoring plan.

The electricity export to the grid represents the realistic quantity of carbon intensive electricity being displaced from the grid system generation mix. Thus accounting of electricity export to the grid provides the most accurate and conservative determination of emission reduction calculation for a grid connected renewable energy power plant like as in the current project activity. The main meter installed at the grid sub station is sealed and maintained (tested & calibrated) by the grid authority only and the project proponent does not have any intervention on that procedure. As per the electricity monitoring pattern observed in grid connected renewable energy projects the entire generated electricity is being evacuated to the grid after deducting import from grid and auxiliary consumption and the electricity monitoring is governed by the Terms and Conditions as mentioned in the Power Purchase Agreements (PPA) signed with the respective Electricity Board. As commonly observed, the electricity supplied to the grid is being monitored through a set of energy meters (Main meter and Check meter) installed at the grid interface. These energy meters are owned and under control of respective electricity authority. As per the conditions of the PPA project participants can not intervene into this metering process. Thus consideration of “Net Electricity supplied to MSEB facility” values as mentioned in the monthly JMR sheet issued by MSEDCL for calculation of the emission reduction calculation will not impact the materiality of the emission reduction calculation for the current project activity. Rest of the monitoring plan remains the same as mentioned in the registered PDD available at UNFCCC website <http://cdm.unfccc.int/Projects/DB/DNV-CUK1178530835.69/view> and revised monitoring plan is attached with the validation opinion.

This revision improves the accuracy of information provided and consistency in registered PDD and the monitoring plan.

4.2 Findings of Previous Verification Reports

This project is undergoing first verification.

5. List of Persons Interviewed

Date of site visit	Name	Position	Short description of subject discussed
08/07/2009	Mr.Gopal Mohta	Deputy Manager(Project s),EMIL	Monitoring practice adopted at plant site and requirement under registered PDD monitoring plan.
09/07/2009	Mr.Gagandeep Arya	Project Consultant	Monitoring practice adopted at plant site and requirement under registered PDD monitoring plan.

6. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

- /1/ (a) Revised Monitoring Plan dated 7th September 2009
- (b) Revised Monitoring Plan dated 16th December 2009
- (c) Revised Monitoring Plan dated 16th April 2010

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

- /2/ Registered PDD version 04 dated 7th November 2007
- /3/ Validation Report, 9th November 2007
- /4/ Meth ACM0002, ver06, dated 19th May 2006
- /5/ UNFCCC website project view page: <http://cdm.unfccc.int/Projects/DB/DNV-CUK1178530835.69/view>

Annex 1: Validation Protocols

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.1. General Requirements <i>(Note that the sections A.1.1- A.1.4 may be completed after the other sections are completed)</i>				
A.1.1. Is the revision in the monitoring plan based on a decision by the CDM EB	EB49, Annex 29	DR	No, the revision in monitoring plan recommended by DOE	Y
A.1.2. Is the revision based on a decision by CDM EB but also additional revisions are proposed by the PP/DOE	EB49, Annex 29	DR	Not applicable	Y
A.1.3. Is the need for revision in monitoring plan spotted during the first monitoring period?	EB49, Annex 29 Project page on UNFCCC website	DR	During verification of first verification period it has been found that actual monitoring procedure for total electricity generation and auxiliary consumption is not inline with the same described in section B.7.1 and B.7.2 of registered PDD.	Y
A.1.4. Is the revised monitoring plan complete and does the revised monitoring plan follow the registered PDD template?	Registered PDD	DR	Yes revised monitoring plan is complete and template follows the registered PDD template.	Y
A.1.5. Has the revised monitoring plan submitted in track change mode for each of the revision point (issue)?	Revised monitoring plan	DR	PP has submitted the RMP document showing changes highlighted and not in track change mode. Thus CAR#1 was raised. Revised monitoring plan submitted in track change mode.	CAR #1 Y CAR #1 closed
A.1.6. Is there an objective evidence for each of the proposed			During verification PP submitted joint meter reports(JMRs).While reviewing the reports it is known that net electricity supplied to grid by project activity is a calculated parameter	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
revision point (issue)?			but registered PDD recognized the same as measured parameter.	
A.1.7. Does the revised monitoring plan also include the Annex 4?	Registered PDD	DR	PDD does not have Annex 4. RMP includes Section B.7 of the PDD.	Y
A.1.8. Does the revised monitoring plan lead/associate to any kind of change in the project registered design?	Registered PDD & EB48 Annex 66-67	DR	Revision in monitoring plan does not lead to any kind of change in the project registered design	Y
A.2. Data and Parameters Monitored				
A.2.1. Does the revised monitoring plan in the PDD comply with the approved methodology provided for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	VVM Para. 91a/91d/121 Revised MP Section B.7 EB49, annex 2, para 9	DR	Revised monitoring plan contains all necessary parameters to improve transparency in monitoring procedure and the conformity with approved monitoring methodology. It is confirmed that changes in the revised monitoring plan should have no impact on the calculation of the emissions reduction achieved by this project activity. Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data	Y
A.2.2. Are the changes in the monitoring plan inline to the applied methodology and tool?	ACM0002, version 06	DR	Revised monitoring plan is inline with applicable methodology ACM0002, version 06, dated 19 th May 2006.	Y
A.2.3. Are the changes affecting the ER calculation (directly/indirectly)?	Revised MP	DR	Revision in MP do not have any direct/indirect affect on ER calculation.	Y
A.2.4. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the	RMP Section B.7	DR	Information's for each monitoring parameter provided in a transparent manner	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
monitoring plan?				
A.2.5. Has there been an issuance with the original monitoring plan of the registered PDD in the past?	Project page on UNFCCC website	DR	Not applicable	Y
A.2.6. if so how did the identified gaps effect the ER calculations for the monitoring periods in the past?			Not applicable	
A.2.7. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	RMP Section – B.7	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data.	Y
A.2.8. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	RMP Section- B.7	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data.	Y
A.2.9. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	Revised MP Section -B.7	DR	Project involve the generation of electricity from wind energy thus project emission is considered as zero which is inline with applicable methodology ACM0002 version 06.	Y
A.3. Quality Control (QC) and Quality Assurance (QA) Procedures				
A.3.1. Is the selection of data undergoing quality control and	VVM Para. 121	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data. It is also confirmed by means	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
quality assurance procedures complete?			of review of the documented procedures, interviews with plant personnel and physical inspection of the proposed CDM project activity site that project participant has ability to implement the monitoring plan.	
A.3.2. in case, a revision is proposed, the impact of the revision should be assessed and it not result in reduced level of accuracy and completeness in the monitoring and verification process	EB49, annex 2, para 9		Revised monitoring plan should have no impact on accuracy and completeness in the monitoring and verification process because the revision is aimed to describe the monitoring procedure in a transparent manner as per the applicable methodology	Y
A.3.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	VVM Para 121	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data.	Y
A.3.4. Is it ensured that data will be bound to national or internal reference standards?	VVM Para. 86d	DR	All the monitoring data are compliance with national and sectoral policies and circumstances are considered and listed in the PDD.	Y
A.4. Operational and Management Structure				
A.4.1. Is the authority and responsibility of project management clearly described?	PDD Section B.7.2 /Annex 4	DR	Authority and responsibility of project management is described in transparent manner in section B.7.2 of registered PDD and also followed in revised MP	Y
A.4.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD Section B.7.2/Annex 4	DR	Authority and responsibility for registration, monitoring, measurement and reporting clearly described in section B.7.2 of registered PDD also followed in revised MP	Y
A.5. Monitoring Plan (Annex 4)				

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.5.1. Does the monitoring plan completely describe all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	VVM Para. 122b	DR	Revised monitoring plan describe the measures to be implemented for monitoring all parameter clearly and QA/QC procedure to ensure delivery of quality data.	Y
A.5.2. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	VVM Para. 122b	DR	Revised monitoring plan includes all the information's about monitoring equipments involved in project activity.	Y
A.5.3. Is there any change proposed in the specifications of the monitoring equipment or their positioning or installation then the impact of the change due to revision should be assessed and it not result in reduced level of accuracy and completeness in the monitoring and verification process	EB49, annex 2, para 9		Not applicable	Y
A.5.4. Are procedures identified for calibration of monitoring equipment?	VVM Para. 122a-c	DR	Revised monitoring plan mentions the calibration procedure for monitoring equipments.	Y
A.5.5. Is there any change proposed in the calibration procedures, if yes then the impact of the change due to revision should not result in reduced level of accuracy and	EB49, annex 2, para 9		Not Applicable	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
completeness in the monitoring and verification process				
A.5.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	VVM Para. 122a-c	DR	Data handling and data recoding procedure discussed in revised monitoring plan inline with the requirements of methodology	Y
A.5.7. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	VVM Para. 122a-c	DR	Monitoring arrangements described in the revised monitoring plan are feasible within the project design	Y

Annex 2: Overview of Findings

Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	1	0	0

Date:	15/12/2009	Raised by:	Ajoy Gupta/Ravi Kant Soni		
Type:	CAR	Number:	01	Reference:	A.1.5
Lead Assessor Comment:					
Project participant needs to submit the revised monitoring plan in track change mode					
Project Participant Response:				Date: 16/12/2009	
Revised MP with track change with page numbers in line the registered PDD is being submitted.					
Documentation Provided by Project Participant:					
Revised monitoring plan dated 16/12/2009					
Information Verified by Lead Assessor:					
The changes made in the Monitoring Plan are clearly identifiable through track change mode in Revised MP submitted.					
Reasoning for not Acceptance or Acceptance and Close Out:				Date: 16/12/2009	
Project participant submitted the revised monitoring plan in track change mode, found satisfactory hence accepted. Thus CAR #1 is closed.					
Acceptance and Close out by Lead Assessor:				Date: 16/12/2009	