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# VALIDATION OPINION FOR REVISION OF REGISTERED MONITORING PLAN

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**Carbon Resource Management Limited**

**Hebei Shangyi Manjing East  
Windfarm Project**

**UNFCCC Reference Number: 0842**

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<b>Date of Issue:</b>		<b>Project Number:</b>		
28-11-2008		CDM.VER0360		
<b>Project Title:</b>				
Hebei Shangyi Manjing East Windfarm Project				
<b>Organisation:</b>		<b>Client:</b>		
SGS United Kingdom Limited		Carbon Resource Management Limited		
<b>Subject:</b>				
Validation Opinion for Registered Monitoring Plan				
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<b>Authorised Signatory:</b>				
Date: 09-12-2008 Name: Siddharth Yadav		<input type="checkbox"/> Unrestricted Distribution		
<b>Revision Number:</b>	<b>Date:</b>			<b>Number of Pages:</b>
0	28-08-2008			8
1	28-11-2008			9
2				

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## 1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Carbon Resource Management Limited to perform a validation of the revision of monitoring plan for registered project 'Hebei Shangyi Manjing East Windfarm Project', UNFCCC reference number 0842. The validation was performed following the UNFCCC criteria, approved methodology and relevant EB guidance and meeting reports.

The proposed revision of monitoring plan can reflect the accuracy and completeness of the project information in the PDD.

Furthermore, we confirm the following:

- (a) 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;
- (b) The proposed revision of the monitoring plan is in accordance with the approved monitoring methodology ACM0002 version 6;
- (c) The approach of previous verification report (i.e. the first monitoring period), which was approved by the Board, has been taken into account since no findings from previous verification in this regard.

The validation is based on the information made available to SGS and the engagement conditions detailed in the report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the approval process by the EB. Hence SGS can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

### Signed on Behalf of the Validation Body by Authorized Signatory

Signature:



Name: Siddharth Yadav

Date: 09-12-2008

## 2. Introduction

### 2.1 Objective

Paragraph 57 of the modalities and procedures for the CDM allow 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.

Carbon Resource Management Limited has commissioned SGS to perform such a validation of the revision of monitoring plan according to the procedure detailed in Annex 34 to EB26 meeting report. The original monitoring plan is part of the PDD of the registered CDM project: Hebei Shangyi Manjing East Windfarm Project (hereafter referred to as Manjing East Project), UNFCCC reference number 0842. The purpose of this validation is to have an independent third party assessment to 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.

### 2.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project’s baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

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

### 2.3 GHG Project Description

Hebei Shangyi Manjing East Windfarm Project was registered on 31/03/2007, UNFCCC ref. number 0842, and the first crediting period is from 31/03/2007 to 28/02/2014.

### 2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Julian Zhou	Lead Assessor	SGS China
Simon Zhao	Assessor	SGS China

## 3. Methodology

### 3.1 *Review of Documentation*

The validation is performed primarily as a document review of the proposed revision of monitoring plan, registered PDD, approved methodology and relevant EB guidance and meeting reports. The assessment is performed by trained assessors.

### 3.2 *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 **New Information Request (NIR)** 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:

- I. mistakes have been made with a direct influence on project results;
- II. validation protocol requirements have not been met; or
- III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

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

**Observations** may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form to this report if applicable. In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

### 3.3 *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. Determination of Findings

For the first monitoring period, the project participant applied an approach approved by the Board with respect to the estimation of proportion of electricity generation by the project activity and no findings were raised accordingly in this regard. CERs were issued successfully for the first monitoring period, however, the monitoring now includes the monitoring of electricity generated by the project and another wind farm. The Board requested in the following mail the monitoring plan to be revised before next request for issuance. In response to this request, the revision of monitoring plan was made accordingly.

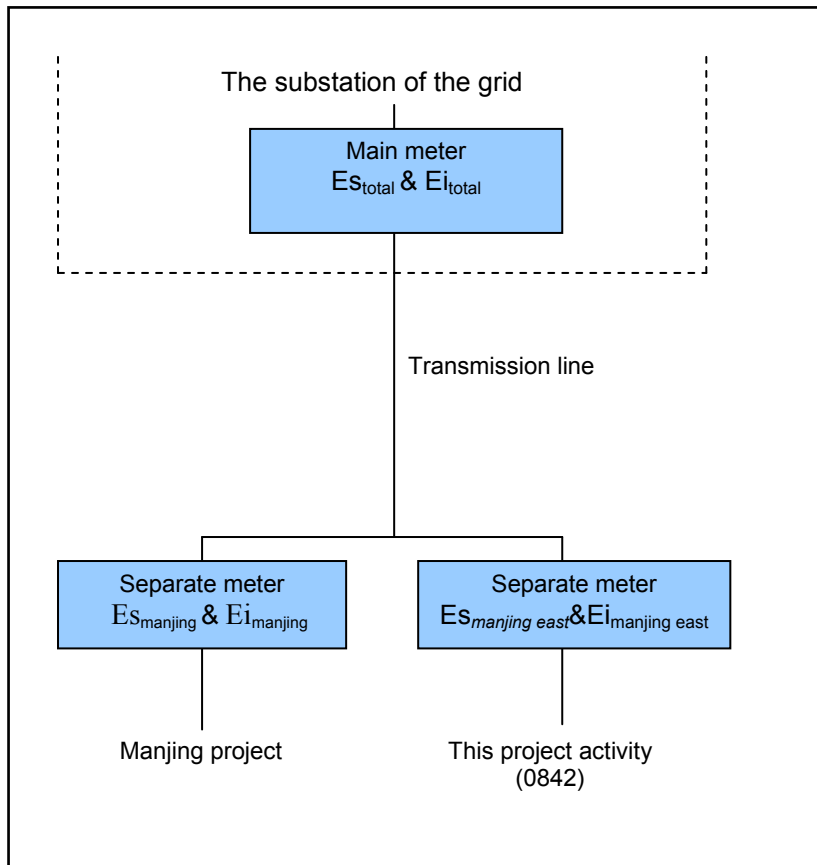
### 4.1 Description of Revision of Registered Monitoring Plan

The proposed revision of monitoring plan is only to replace Annex 4 (Monitoring Plan) and Section D (Application of a monitoring methodology and plan) in the registered PDD of Hebei Shangyi Manjing East Windfarm Project (UNFCCC ref. number 0842), any other parts in the PDD remain unchanged.

In the original Annex 4 of the registered PDD, it was mentioned that “*The net electricity generation will base on the main meter installed in Zhangbei substation*” (page 51, under Point 3. Installation of Meters), due to the meter installed in Zhangbei substation is the property of the grid company, and it is common that the grid company connects new power generation project (Manjing project) to the same transmission line used by the existing project, therefore the electricity measured by the main meter installed in Zhangbei substation actually consists of electricity supplied by other generation project, above description in the original Annex 4 of the registered PDD is not correct.

This revision is aiming to account for the fact that the project activity now shares the 110kV transmission line to the substation of the grid and the electricity meter installed there with other project as shown in the diagram below.

#### Metering Diagram



Onsite separate meter is used to monitor and calculate net generation (export minus import) from each generation project respectively, only the net electricity received by grid at its substation will be used to calculate the emissions reduction achieved by the project. This means that any transmission losses are accounted for and are shared between the projects on the basis of net electricity to the transmission line. The net electricity supplied from the project activity is calculated as follows:

$$EG_{\text{manjing east}} = EG_{\text{total}} * E_{\text{manjing east}} / [E_{\text{manjing east}} + E_{\text{manjing}}] - E_{\text{back-up}}$$

Where:

$EG_{\text{manjing east}}$  : The calculated net electricity supplied from the project activity.

$EG_{\text{total}}$  : The total net electricity supplied to the grid at the substation of the grid which is calculated from the main meter; it is the difference between the reading of export to the grid ( $E_{\text{S}_{\text{total}}}$ ) and import from the grid ( $E_{\text{I}_{\text{total}}}$ ) measured by the main meter.

$E_{\text{manjing east}}$  : The net electricity exported from the project activity to the transmission line using the onsite separate meter for the Hebei Shangyi Manjing East Wind Farm Project which is the difference between the exported electricity ( $E_{\text{S}_{\text{manjing east}}}$ ) and imported electricity ( $E_{\text{I}_{\text{manjing east}}}$ ) measured by the separate meter.

$E_{\text{manjing}}$  : The net electricity exported from Manjing project to the transmission line using the onsite separate meter for Manjing project which is the difference between the export to the line ( $E_{\text{S}_{\text{manjing}}}$ ) and import from the line ( $E_{\text{I}_{\text{manjing}}}$ ) measured by the onsite separate meter.

$E_{\text{back-up}}$  : The electricity consumption from the 10kV back-up power line by the project activity and Manjing project which is subtracted by the project owner for conservative purpose.

To be consistent with Annex 4, above five parameters have been inserted in Section D of the PDD accordingly. As the measured values,  $EG_{\text{total}}$ ,  $E_{\text{manjing east}}$ ,  $E_{\text{manjing}}$  and  $E_{\text{back-up}}$  will be measured by four meters continuously and recorded monthly.  $EG_{\text{manjing east}}$  will be acquired monthly based on the calculation as defined in the revised monitoring plan.

## 4.2 Validation of Revision of Registered Monitoring Plan

The revision monitoring plan (annex 4) provides a solution to calculate the net electricity delivered to the grid by registered CDM project and observes the monitoring methodology ACM0002 version 6. Monitored parameters have been interpolated in the revision of Section D (Application of a monitoring methodology and plan), i.e.  $EG_{\text{total}}$ ,  $E_{\text{manjing east}}$ ,  $E_{\text{manjing}}$  and  $E_{\text{back-up}}$ . It is also in line with the approach used in the first monitoring period which has been approved by EB during the first request for issuance.

This calculation method is considered appropriate; it efficiently allocates transmission losses which can be confirmed by the agreement between the project owner and the grid company. At the same time, the actual electricity generation and importation by individual project is also measured by onsite meters. This revision does not affect the emissions factor or calculation of the emission reductions achieved by concerned registered projects.



## 5. Document References

Category 1 Documents (documents provided by the Client that relate directly to the revision of monitoring plan):

- /1/ Revised MP (track change version)
- /2/ Revised MP (clean version)

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):

- /3/ ACM0002 version 6, dated 19/05/2006
- /4/ Annex 34 to EB26 meeting report
- /5/ Registered PDD: Hebei Shangyi Manjing East Windfarm Project, dated 27/11/2006, ver. 2.3, UN ref. 0842
- /6/ Agreement indicating the calculation of the net electricity supplied to NCPG by Manjing East Windfarm, dated 22/01/2007
- /7/ Verification and certification report for Hebei Shangyi Manjing East Windfarm Project - 1<sup>st</sup> monitoring period from 31/03/2007-31/10/2007

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