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Validation Report

Project Title:

Wind Power Project in Rajasthan,
India by M/s Devki Builders Pvt.
Ltd.

Report No.: SQAS-CDM-ES12880028

Date : 21 March 2012

Date of first issue: 14 October 2011	Project No.: SQAS-CDM-ES12880028
Approved by: Parama Iswara Subramaniam	Project title : Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.
Client: M/s Devki Builders Pvt. Ltd.	DOE : SIRIM QAS International Sdn Bhd
<p>Summary:</p> <p>SIRIM QAS International Sdn Bhd has performed a validation of the “Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.” based on the Kyoto Protocol requirements, UNFCCC rules and associated interpretations. The validation exercise was not meant to provide any consulting to the project participants. However, the stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.</p> <p>The validation consisted of three phases; i) a document review of the project design documents and preparation of validation protocol, ii) on-site visit to the project activity and interviews with the project developer and the project consultant, and, iii) resolution of outstanding issues and the issuance of final validation report and validation opinion.</p> <p>The project activity involves generation of electricity by Wind Turbine Generators (WTGs) in the State of Rajasthan with total installed capacity of 6.0 MW (4x1.5MW). The main purpose of the project activity is to generate electrical energy through renewable energy generation unit, such as WTG, that displaces electricity from the electricity distribution system (NEWNE Grid) dominated by fossil fuel fired generating units. The project activity will displace approximately 11,101 MWh of renewable power annually to the power deficit, carbon intensive NEWNE Grid.</p> <p>The validation process, from contract review to the issuance of validation report and validation opinion was conducted in accordance with SIRIM QAS Intl.'s internal procedures. The first output of the validation process was a list of corrective action requests and clarification requests (CAR and CL) which is presented in Table 3 of Appendix A of this report. As a result of these findings, the PDD was revised by the client to version 04^{1/2.1/}.</p> <p>In summary, it is the opinion of SIRIM QAS Intl. that the proposed CDM project activity has correctly applied the baseline and monitoring methodology for the project activity and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.</p>	

Report No.: SQAS-CDM-ES12880028		
Report title: “Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.”		
Work carried out by:		
Dr.G.Vishnu	: Validation team leader (from February 2011 onwards)	
Mr. Ravishankar	: Validation team leader (up to January 2011)	
Technical Reviewer : Mr. K.Sudheendra		
Work verified by: Mr.Parama Iswara Subramaniam		
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Abbreviations

AMS	Approved Methodology Small Scale
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse gas(ses)
GSCP	Global Stakeholders Consultation Process
GSS	Grid Sub-Station
IRR	Internal Rate of Return
IWPA	Indian Wind Power Association
LCS	Local Control System
LoA	Letter of Approval
MoC	Modalities of Communication
MoV	Means of Verification
MP	Monitoring Plan
NCDMA	National Clean Development Mechanism Authority
NEWNE	Northern Eastern Western and North-Eastern Grid
ODA	Official Development Assistance
PDD	Project Design Document
PO	Purchase Order
PP	Project Participant
PPA	Power Purchase Agreement
QA/QC	Quality Assurance/Quality Control
RSEB	Rajasthan State Electricity Board
SIRIM QAS Intl.	SIRIM QAS International Sdn Bhd
SISL	Suzlon Infrastructure Services Limited
UNFCCC	United Nations Framework Convention on Climate Change
WTGs	Wind Turbine Generators

TABLE OF CONTENTS	PAGE
1.0 INTRODUCTION	4
1.1 Objective	4
1.2 Scope	4
1.3 GHG Project Description	4
1.4 Validation Team	5
1.5 Technical Reviewer	5
2.0 METHODOLOGY	5
2.1 Review of Documents	7
2.2 Follow-up Interviews	8
2.3 Resolution of Clarification and Corrective Action Requests	9
2.4 Internal Quality Control	9
3.0 VALIDATION FINDINGS	9
3.1 Participation requirements	9
3.2 Project Design	10
3.3 Project Baseline	11
3.4 Additionality	13
3.5 Monitoring Plan	17
3.5.1. Parameters determined ex-ante	19
3.5.2. Parameters determined ex-post	19
3.6 Calculation of GHG Emissions	19
3.7 Environmental Impacts	20
3.8 Comments by Local Stakeholders	20
4.0 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS	20
5.0 VALIDATION OPINION	21
6.0 REFERENCES	23
Appendix A: Validation Protocol	
Appendix B: Letter of approval for the project by host country DNA	

1.0 INTRODUCTION

M/s Devki Builders Pvt. Ltd.” had engaged SIRIM QAS International Sdn Bhd to perform validation of the “Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.” (hereafter called as project participant) in India. This report summarises the findings of the validation of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol criteria, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board’s decisions.

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project’s baseline, the monitoring plan (MP), and the project’s compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

1.2 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.

SIRIM QAS Intl. has, based on the recommendations in the Validation and Verification Manual version 1.2^{1/}, 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, the stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 GHG Project Description

The project activity is electricity generation using wind as renewable energy, which involves installation of four units of WTGs, each with 1.5 MW capacity (total installed capacity of 6.0MW), in the state of Rajasthan. The project is expected to generate and displace 11,101 MWh of electricity annually from the power deficit, fossil fuel dominated NEWNE grid of India, thereby contributing to GHG emission reduction of 102,400 tCO₂ over a period of 10 years and contributing to climate change mitigation efforts.

1.4 Validation Team

1.4.1 The following validation team had been assigned to carry out the validation of the project.

Validation team leader	: Dr.G.Vishnu (from February 2011)
Validation team Leader	: Mr. Ravi Shankar (Up to January 2011)
Validation team member	: Dr.G.Vishnu (from beginning until January 2011)
Financial Expert	: Mr. G. N. Jayram

Dr. G. Vishnu holds a Ph.D in Environmental Science. He has around 8 years experience in the field of research and consultancy related to water, wastewater and solid waste management systems. He has undergone extensive training on validation and verification of CDM projects and is qualified as CDM lead auditor for validation and verification in accordance with SIRIM QAS Intl.'s procedures.

Mr. Ravishankar holds a B.Tech Degree and P.G.Diploma in Industrial Safety and Environmental Management. He has more than 17 years of industrial experience of which last five years have been in CDM consultancy and auditing, validation and verification of CDM projects. He has undergone extensive training on CDM validation and verification and is a qualified lead auditor for validation and verification in accordance with SIRIM QAS Intl.'s procedures.

Mr. G. N. Jayram is a qualified Chartered Accountant (FCA) and possesses Diploma in Information System Audit (DISA), and is a member of the Institute of Chartered Accountants of India. He possesses more than 23 years of experience in the field of accountancy. i.e. in conducting statutory and internal audits of various public sector undertakings, and public and private limited companies. He has about 4 years of experience in financial appraisal and assurance related to CDM projects. He is well versed with the CDM rules and guidelines.

1.5 TECHNICAL REVIEWER

Mr. K. Sudheendra, holds a Degree in Bachelor of Engineering in Electrical Engineering. He has more than 30 years of experience in Energy Sector. He has been trained in the CDM validation and verification processes, and is a qualified Technical Reviewer as per SIRIM QAS Intl.'s qualification criteria.

2.0 METHODOLOGY

The SIRIM QAS Intl.'s validation process consists of the following phases:

- i) a document review of the project design documents and preparation of validation protocol;
- ii) on-site visit to the project activity and interviews with project developer and project consultant; and
- iii) resolution of outstanding issues and the issuance of final validation report and opinion

In order to ensure transparency, a validation protocol was customized for the project according to the Validation and Verification Manual. The protocol describes criteria (requirements), means of verification and the results from the validating the identified criteria, in a transparent manner. The validation protocol serves the following purposes :

- it organizes, details and clarifies the requirements that a CDM project is expected to meet;

- it ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described below in Figure 1.

Validation Protocol Table 1: Mandatory Requirements			
Requirement	Reference	Conclusion	Cross Reference / Comment
Mandatory requirements that the project must meet.	Gives reference to the legislation or agreement where the requirement is found	This is acceptable based on evidence provided (OK), a CAR where this is risk of non-compliance with stated requirements or a request for CL where further clarifications are needed.	Used to refer to the relevant checklists in Table 2 to show how the specific requirement is validated. This is to ensure a transparent validation process.

Validation Protocol Table 2 : Requirements Checklist			
Checklist question	Means of verification (MoV)	Comment	Draft and/or final conclusion
The various requirements in Table 2 are linked to checklist questions the project should meet. The checklist is organised in seven sections. Each section is further subdivided. The lowest level constitutes a checklist question.	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 (OK), or a CAR due to non-compliance with the checklist question or CL when the validation team has identified a need for further clarification.

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	Ref. to checklist question in table 2.	Summary of project owner response	Validation conclusion
If the conclusions from the draft Validation are either a CAR or CL, these should be listed in this section.	Reference to the checklist question number in table 2 where CAR or CL is explained.	The responses given by the project participants during the communications with the validation team should be summarized in this section.	This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in table 2, under 'Final Conclusion'

Figure 1: Validation protocol tables

The completed validation protocol of the "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd." is enclosed in Appendix A of this report.

Findings established during the validation were classified as non-fulfillment of validation protocol criteria or where risks to the fulfillment of project objectives were identified. Corrective Action Request (CAR) was issued, where:

- i) mistakes have been made that directly impact on the project results; or
- ii) validation protocol requirements have not been met; or
- iii) there was a risk that the project would not be accepted as a CDM project or that emission reductions will not be certified.

The validation team has also raised "Clarification" (CL), where additional information is needed to fully clarify an issue, and "Forward Action Request"(FAR) for issues related to project implementation that require review during the first verification of the project activity

2.1 Document review of PDD and other documents

The first PDD version 01^{/2/} submitted by the client and additional documents related to the project design and baseline were reviewed as an initial step of the validation process. The subsequent step involved the identification of corrective action requests, clarification requests and forward action requests (CAR and CL) which is presented in Table 3 of Appendix A of this report. As a result of these findings, the PDD was revised by the client to 04^{/2.2/}. A complete list of all documents and records reviewed is as attached in Section 6.0 of this report.

Significant changes during validation in comparison with the web hosted PDD are as follows:

1. Project description related to location details of the WTGs updated and corrected based on observations during site visit
2. Events related to CDM activity revised to be in line with actual implementation based on relevant documentation provided.
3. Explanation and supporting references for parameters related to additionality was revised to be in line with latest investment analysis guidelines
4. Change of project IRR from 8.71% in the webhosted PDD to 8.75%. Also the IRR has been considered based on the conceptualized project configuration on 7.5MW capacity as per para 6 of investment guidelines as webhosted PDD had considered IRR based on actuals (6.0 MW capacity) also.
5. The relevant transmission losses of 4 % have been considered and hence the total energy generated has changed to 11,101 MWh, resulting in a decrease of estimated emission reductions from 10,667t/CO₂ to 10,240 t/CO₂ per annum.
6. The loan interest is considered based on actual loan sanctions as per relevant Investment guidelines compared to the offer letter from the equipment supplier which was referred in the webhosted PDD.
7. Emission factor of NEWNE grid has been modified to 0.9225 tCO₂/MWh to reflect the consistency with the source, CEA version 5.0
8. The project start date, which signifies commitment by the PP to the actual implemented project activity, has been changed to 12th August 2009 as per the amended Purchase Orders submitted, compared to the start date considered based on the initially conceptualized Purchase Order.
9. The monitoring requirements were revised to be in compliance with actual onsite practices and the requirements of the methodology

10. The PDD was updated to the latest version of the methodology, AMS I.D. as well as applicable guidelines.

2.2 Follow-up interviews

SIRIM QAS Intl. conducted visits to client's head office and project site from 21st – 23rd July 2010, to confirm selected information and to resolve issues identified in the document review. The table below provides a list of all persons interviewed and the main topics covered.

NAME	ORGANISATION	TOPICS
Mr. Surendra Agarwal - Director	Devki Builders Pvt. Ltd.	<ul style="list-style-type: none"> ➤ General information about the project. ➤ CDM consideration. ➤ Financial analysis, project barrier and additionality.
Dr. Vijaybhai Patel Mr. Chandra Prakash Singh Mr. Anant Ladukar	MITCON Consultancy & Engineering Services Ltd.	<ul style="list-style-type: none"> ➤ General information about the project & the PDD. ➤ Baseline determination ➤ Monitoring and management. ➤ Financial analysis, project barrier and additionality. ➤ Stakeholder consultation
Mr. Surendra Shekhavat Mr. Kuldeep Singh Mr. Mahesh Suryavanshi Mr. Shyam Jangid Mr. Akhalesh Kumar Mr. Mukesh Kumar	Suzlon Infrastructure Services Limited	<ul style="list-style-type: none"> ➤ Operation and maintenance procedures ➤ Training. ➤ Calibration and maintenance of monitoring & measuring equipment. ➤ Potential risk and the emergency procedures
Mr. Madan Singh Mr. Achal Singh Mr. Pehpa Ram Papu Ram	<p>Sarpanch, Village Ratan Ka Bas, Rajasthan</p> <p>Gram Sevak, Village Ratan Ka Bas, Rajasthan</p> <p>Villager, Village Ratan Ka Bas, Rajasthan</p> <p>Villager, Village Ratan Ka Bas, Rajasthan</p>	<ul style="list-style-type: none"> ➤ Local Stakeholder meeting agenda ➤ Members present ➤ Issues raised during Local stakeholder consultation Process ➤ Report on how due account was taken of any comments received/ Replies of the PP

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the request for corrective actions and clarification and any other outstanding issues which needed to be clarified prior to SIRIM QAS Intl.'s positive conclusion on the project design. Five (5) corrective action requests and three (3) clarification requests raised by SIRIM QAS Intl. were resolved during communication between the client and SIRIM QAS Intl.'s validation team. In order to ensure the transparency of the validation process, the concerns raised and responses that have been given are summarized in Section 3 of this report and documented in more detail in the table 3 of the validation protocol in Appendix A.

2.4 Internal quality control

SIRIM QAS Intl. has established an internal quality control process. A Technical Reviewer has been appointed to review the final draft validation report and the final validation report. The comments made by the Technical Reviewer have been taken into consideration and incorporated in the final report.

The final report (after resolutions of all findings) is then submitted to the CDM Quality Manager for review and approval

3.0 VALIDATION FINDINGS

This section summarises the main issues that were found during the validation process. A detail listing of all findings is available in table 2 and 3 of the validation protocols (Appendix A of this report).

3.1 Participation requirements

Devki Builders Pvt. Ltd is the project participant and the host country is India. India ratified the Kyoto Protocol on 26 August 2002 and meets the participation requirements of the CDM.

Further, the participation requirements were validated based on the confirmation of the following:

- The project participant is listed in tabular form in section A.3 of the PDD.
- The information is consistent with the contact details provided in Annex 1 of the PDD.
- The participation of the project participant has been approved by the DNA of India, in a letter of approval.
- No entities other than those approved as project participants have been included in section A.3 of PDD

Letter of Approval (LoA)^{3/} from host country DNA was submitted by PP at the time of web hosting. The LoA issued has been reviewed and deemed appropriate in confirming that the following

- India is a party to the Kyoto Protocol
- CDM is a voluntary participation,
- the project under validation will assist in India's sustainable development,
- the Project title is in line with the title mentioned under section A.1 of the PDD,

The LoA has been verified to be unconditional with respect to the above confirmed aspects. The LoA has been received, clearly referencing the letter itself (Reference number 4/22/2009-CCC

dated 15/04/2010). The DOE has received the LoA from the project participant which has been verified from the DNA website <http://www.cdmindia.in>

A statement of Modalities of Communication (MoC)^{/4/} with the EB and UNFCCC secretariat has been issued and signed by an authorized person of Devki Builders Pvt. Ltd . The MoC is found to be of the latest version (version 1.4) and appropriate as it has clearly defined the responsible party for communicating with EB and UNFCCC regarding the issuance of CER of the proposed CDM project.

3.2 Project Design

The project document uses the latest CDM-SSC-PDD template version 3 which is currently applicable and hence acceptable. The corresponding sections of the PDD are correctly filled and followed according to the guidelines specified (CDM-SSC-PDD version 5, dated 14 September 2007).

The project activity. comprises of four WTGs of 1.5 MW capacity each (total capacity of 6.0 MW) located at Bastwa Mataji and Kui Inda village, Jodhpur district, Rajasthan. The WTGs are connected through 33KV feeder line to Ketu Kalan GSS of Suzlon which is further connected to 220 KV GSS at Tinwar, District. Jodhpur. The details of the WTGs are provided below.

Capacity	1.5 MW	1.5 MW	1.5 MW	1.5 MW
Model	S-82	S-82	S-82	S-82
Unique identification No.	RKBNL6	RKB083	RKB088	RKB089
Village	Kui Inda	Bastwa Mataji	Bastwa Mataji	Bastwa Mataji
Commissioning Date	30/09/2009	30/09/2009	30/09/2009	30/09/2009
Latitude	N26.46069	N26.505	N26.52325	N26.52639
Longitude	E72.48928	E72.56478	E72.56994	E72.56817

The location of the proposed project activity has been physically verified during validation site visit. The geographical coordinates of the project activity as mentioned in the PDD was cross checked with globally accessible satellite based imagery data software and found consistent. The site details such as the survey number, village, taluka and district were cross-checked with land documents^{/5/} . During the validation, CL 1 was raised to clarify the location of WTG with respect to the land records. In response to the CL, PP had revised the PDD to indicate the location details of the WTGs, which are consistent with the land records that were checked by the validation team. Details of the findings and resolutions are as in Table 3 of Appendix A of this report

The project is 6.0 MW wind based renewable electricity generation which is less than 15 MW capacity limit of small scale CDM project activity and is expected to displace 11,101 MWh per annum of fossil fuel dominated energy from the NEWNE grid, which is equivalent to 10,240 tonnes of CO₂e per annum

In order to validate the technical specifications of the project activity as mentioned in the PDD, the project technical specifications was cross verified with the details provided in the PO^{/8/} , and the technical specifications of the installed WTGs - Suzlon's S 82 (1.50MW) Asynchronous Generator,

4 pole with slip ring type - which was found to be correct and consistent.

The project activity was evaluated in accordance to EB 54 Annex 13 for debundled component of a larger project activity. It was observed that the PP does not have any other small scale CDM project activity within a 1 km distance of the project activity or either in process of CDM registration or registered with UNFCCC. Accordingly it was concluded that the project activity is not a debundled component of a larger project activity.

The project participant has chosen a fixed crediting period of 10 years, starting on 23 April 2012 or the date of registration of the project activity with CDM EB, whichever is later. This was verified during the discussion with the PP, compared with the expected operational lifetime of project (20 years) as verified from the website of Suzlon (http://www.suzlon.com/key_differentiators/l3.aspx?l1=4&l2=14&l3=31) and considered reasonable.

The validation team has verified that the project has not received any public funding and/or Official Development Assistance (ODA). The project is a unilateral project and has been funded by both debt and equity portions as evidenced from the Bank Loan Sanction Letters.

3.3 Project Baseline

The project applies the baseline and monitoring methodologies for small scale CDM project activities approved by the CDM Executive Board (i.e. AMS I.D - "Grid connected renewable electricity generation" version 17). The applicability conditions as mentioned in paragraphs 1-8 have been assessed as follows:

Condition 1: The purchase order for the WTGs and physical verification at site by the validation team indicates that the project activity involves installation of WTG units of 6.00 MW capacity and therefore, the proposed project activity is a renewable energy project. All the WTGs of the PP, Devki Builders Pvt. Ltd, supply the electricity to the NEWNE grid which can be through the power purchase agreements with RERC. Hence, the project fulfills the condition.

The details of the power generation of the windmills are as follows:

No. of WTGs	Commissioning date	Capacity (kW)	Machine no.	Type of power sale agreement as per actual implementation
1	30/09/2009	1.5 MW	RKBNL6	Power purchase agreement with RERC for sale of generated power to the NEWNE grid
2		1.5 MW	RKB083	
3		1.5 MW	RKB088	
4		1.5 MW	RKB089	

Condition 2: As per Table 2 of the methodology, the project type corresponding to *Project supply of Electricity to a national/regional grid* is applicable to the project activity and hence as explained in the applicability condition 1 above, fulfills the condition.

Condition 3: The validation team confirmed that all the WTGs in the project activity are new by cross checking the purchase orders for the WTGs, commissioning certificates and site visit. The information that there was no renewable energy power plant operating prior to the implementation of the project activity was verified from the relevant land documents. Thus, this is a Greenfield project of Devki Builders Pvt. Ltd, and there were no previous installations at the site. The project activity therefore meets condition (a) since it is a new Greenfield facility, the rest of the conditions, viz., (b), (c) and (d) are not applicable.

Condition-4: The applicability condition is relevant only to hydropower plants and thus not applicable to the project activity which is a wind based power generation project.

Condition 5: Verification at site indicated that the proposed project activity consists of total 4 numbers of WTGs of capacity 1.50 MW each resulting in total capacity of 6.0 MW. Therefore, the criteria related to addition of neither renewable nor non-renewable components and co-firing is not applicable for this activity. The total capacity of this project is below the threshold limit of 15 MW for small scale project activity. The project falls under Type I - Renewable energy projects, category D: Grid connected renewable electricity generation.

Condition 6: As the project activity is a wind based power generation unit, the criteria of combined heat and power (co-generation) is not applicable

Condition 7: This condition is not applicable as the project is a Greenfield project activity

Condition 8: This condition is not applicable as the project is a Greenfield project activity

Hence, the validation team confirms that the project fulfills the applicability criteria of the AMS I.D. Version 17.

As per para 9 of the methodology, the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project is connected to. In line with the requirement the project boundary encompasses the physical and geographical site of the 6.0 MW wind power project and includes the wind turbine installations, transformers, transmission lines, metering equipment and connected grid sub-stations as per requirements of the applied methodology.

The project baseline emission is the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. The baseline scenario represented is "Electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants" and by the addition of new generation sources (fossil fuel intensive).

Baseline emission factor has been estimated using ex-ante approach for combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in 'Tool to calculate the emission factor for an electricity system, Version 2 (EB 50, Annex 14)'^{/9/}. In the proposed baseline, NEWNE Grid of India has been used as the reference for estimating the current generation mix. Data from the CO₂ Baseline Database for the Indian Power Sector-Central Electricity Authority (Version 5.0)^{/10/} has been used. The PLF assumed (22.0%) for estimation of (baseline) electrical energy generated by the project activity is taken from a publicly available source, i.e. the Rajasthan Electricity Regulatory Commission order September 2006, which is same as what was provided to bank^{/11/} while applying for project financing and is in line with para 3(a) of EB 48 Annex 11. It is conservative and appropriate as compared with the actual generation record^{/12/}.

The project complies with the baseline requirements. In determining the baseline, reliable assumptions were verified and found appropriately justified. The methodology (AMS I.D version 17) is correctly quoted and applied by comparing it with the actual text of the applicable version 17 of the methodology available on the UNFCCC CDM website.

3.4 Additionality

Section B.5 of the PDD has demonstrated that the project has applied a barrier analysis in accordance with "Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities". PP has chosen to demonstrate the additionality through investment barrier, Generally Accepted Accounting Principles (GAAP) has been followed and Tool for the demonstration & assessment of additionality version 6.0^{13/}, and investment guidelines based on EB-62, annex 5, guidance of the assessment of investment analysis version 05 has been referred.

Investment barrier:

Choice of approach

The project proponent has chosen to demonstrate additionality through the existence of investment barrier.

A benchmark analysis has been chosen by project proponent since the project generates financial or economic benefits other than CDM related income and the alternative to the project is not considered as an investment.

Choice of benchmark:

According to para 12 of Investment Guidelines (EB 62, Annex 5), local commercial lending rates or weighted average cost of capital (WACC) are appropriate benchmarks for a project IRR. In line with the guidance, PP has selected local commercial lending rate as the benchmark for the project which is considered appropriate.

The project proponent has calculated the expected return based on local commercial lending rate (Benchmark Prime Lending Rate (BPLR)) declared by Reserve Bank of India. In banking parlance, the Benchmark Prime Lending Rate (BPLR) is the interest rate that the commercial banks normally charge (i.e. expected to charge) their most credit-worthy customers. This interest rate is basically derived from the prime lending rate being prescribed by RBI in accordance with the directives on "interest rates on advances" issued by RBI from time to time. The bank takes into account their (i) actual cost of funds, (ii) operating expenses and (iii) minimum margin to cover regulatory requirement of provisioning and profit margin while arriving at the BPLR.

The BPLR was verified and cross checked against publicly available sources http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/74T_HBSE200910.pdf^{14/} that at the time of decision making the BPLR was in the range of 11% to 12%. Comparing and considering the risk profile of the project, the average BPLR of 11.50% is considered appropriate and acceptable benchmark for the project.

The evaluation has been done based on para 111 of VVM version 1.2 and it is also reasonable to assume that no investment would be made at a rate of return lower than the benchmark in line with para 112 of VVM.

Financial Indicator

The assessment and evaluation of the input parameters used in the IRR calculations has been carried out in conformance with para 110 of the VVM version 1.2.

The additionality tool suggests that a financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service (e.g., levelized cost of electricity production in \$/kWh or levelized cost of delivered heat in \$/GJ) most suitable for the project type and decision context should be identified. The internal rate of return (IRR) on investment as financial indicator is one of the known financial indicators used by banks, financial institutions and project developers for making investment decision. In conformance with this, PP has chosen project IRR as the financial indicator.

According to the investment analysis guidance EB 62, Annex 5, para 6, input values used in all investment analysis should be valid and applicable at the time of the investment decision. Accordingly, the input values such as tariff rate, PLF, O & M expenses and cost of the project were validated with reference to the date of the investment decision. The tariff rate was verified from the State regulatory guidelines^{/15/} and PPA, while the O & M and the project costs were verified from the offer letters^{/16/}. The insurance cost was verified from the insurance certificates^{/17/}. The assumed values for each of the sub projects which have been calculated for a period of 20 years are explained and justified in the table below. In line with para 6 of the investment guidelines, all the estimated values are based on the project capacity conceptualized at the time of investment decision (7.5 MW) rather than the capacity actually implemented post-investment decision (6.0 MW).

Parameter	Value	Source	Justification
Total project cost for 5 WTGs (inclusive of supply of materials, labour and services, allocation of land, and permission from local regulatory authorities)	INR 450 Million (INR 90 million / WTG)	As per Offer letter from the WTG suppliers ^{/16/} (Suzlon Energy Limited.)	As per EB 62 guidelines, the project cost should correspond with the date of investment decision. The value is the same as in the offer letter dated on 15 th July 2009. Also the project cost is calculated on the conceptualized capacity of 5 WTGs which is less than the implemented capacity of 4 WTGs which establishes the conservativeness of the cost. The per WTG cost in the purchase order ^{/18/} is verified to be 85 million. The variation in cost of -5.5% has been covered under the scope of sensitivity analysis (-10 %) establishing the project to be additional.
Debt: Equity ratio	70 : 30	As per normative wind power policy guidelines	The debt : equity ratio is based on the normative guidelines available for wind power projects at the time of investment decision. The appropriateness has been crosschecked with the CERC 2009 guidelines on tariff for renewable energy generation ^{/19/} . However as debt equity is bound to change based upon actual loan sanctioned,

			a sensitivity analysis was done to establish the conservativeness of the assumed value.
Plant Load Factor	22.00 %	As per RERC guidelines Sept. 2006 ^{/20/} , and submitted to bank for project appraisal	The PLF value is estimated based on the information available in public domain which has also been submitted to bank for project appraisal ^{/11/} hence considered appropriate and in line with EB 48, Annex 11 guidelines.
Metering and Line Loss	4%	As per RERC order Tariff 15-03-2007 ^{/21/}	The value applied is most appropriate as provided in the para 24 of the referred document
O & M Charges	Rs. 8.0 Million (Rs 1.6 million per WTG, 1st year free)	As per Offer letter ^{/16/} from the WTG suppliers. (Suzlon Energy Limited.).	The value of O & M charges have been applied based on offer letter from the equipment manufacturer available at the time of investment decision which is appropriate. The actual O & M ^{/22/} agreements subsequent to the investment decision date were also cross-checked. There is a variation of the O & M costs (-6.25 %) which however is covered under the scope of the sensitivity analysis (-10 %) establishing the project to be additional.
Escalation in O & M Charges	5%	As per Offer letter ^{/16/} from the WTG suppliers. (Suzlon Energy Limited.).	The value of escalation for O&M charges is based on offer letter from the equipment manufacturer available at the time of investment decision and is considered correct & conservative based on the actual inflation rate prevailing at the time of investment decision http://www.tradingeconomics.com/india/inflation-cpi
Administrative cost	INR 1.0 Million	Based on internal assessment, (Evaluated by an qualified Chartered Accountant ^{/23/})	The value of administrative cost has been estimated by a qualified Chartered Accountant and correctly applied.
Escalation in administrative cost	5%	Based on internal assessment, (Evaluated by an qualified Chartered Accountant ^{/23/})	The estimation in escalation of administrative cost is conservative compared with the prevailing inflation rate http://www.tradingeconomics.com/india/inflation-cpi
Insurance cost	INR 0.675	http://www.tac.org.in/ziptariffs/aiftzip.zip	The value applied is based on Tariff Advisory Committee (TAC) (Statutory Body under Insurance Act 1938) data and considered correct.
Deration in 6th, 10th, 14th and 18th year	1.25%	As per RERC guidelines Sept. 2006 ^{/20/} , Para 67	The value is based on RERC guidelines and correctly applied.

Tariff Rate	4.28 INR/kWh	Rajasthan Electricity Regulatory Commission order July 2009 ^{/15/}	The tariff rate applied has been sourced from the RERC order of July 2009, which is available and applicable to the project activity at the time of investment decision. Hence the validation team considers the rate to be correct. Also cross-check of the implementation was done by verification of the PPA ^{/7/} .
Interest Rate	10.50%	Based on loan sanction letter ^{/24/} .	The assumed value is appropriate and in line with the investment analysis guidance which was verified from the actual loan sanction letter interest rates at the time of investment.
Income Tax Rate	33.99%	Section 143, Income Tax Act 1961	Verified from relevant document Tax man's year book
MAT	17%	Section 117, Income Tax Act 1961	Verified from relevant document Tax man's year book

The IRR for the projects have been computed considering a period of 20 years, as per the assumptions made in the revised financial sheet ^{/25/}. The assumption made for the Input values used in investment analysis are valid and applicable at the time of the investment decision. The project IRR without considering CDM revenue works out to be 8.75% (does not cross the benchmark 11.5%). Considering the revenue from the sale of CER the project IRR is 11.70% and crosses the benchmark of 11.50%. Hence, it can be concluded that the project is not economically or financially feasible without the revenue from the sale of certified emission reductions and the project is additional.

Sensitivity analysis:

In accordance with para 17 of the investment guidance in EB 62, the project proponent has conducted a sensitivity analysis on the financials by varying the parameters which have a bearing of 20 % or more on either the project costs or the project revenues and has tabulated the results.

Electricity Generation					
Varied by	-10%	-5%	0%	5%	10%
Project IRR (%)	6.99	7.88	8.75	9.57	10.32
Project Cost					
Varied by	-10%	-5%	0%	5%	10%
Project IRR (%)	10.04	9.38	8.75	8.14	7.58
O & M					
Varied by	-10%	-5%	0%	5%	10%
Project IRR (%)	9.02	8.88	8.75	8.62	8.46
Debt Equity Ratio					
Varied to	80%	75%	70 % (base case)	65%	60%
Project IRR (%)	8.90	8.84	8.75	8.65	8.58

The sensitivity analysis indicates that in all scenarios (-10 % to + 10%), the IRR of project activity is

lower than the benchmark over a wide range of factors such as electricity generation, project cost and O & M charges and debt equity ratio, indicating the conservativeness and robustness of the parameters used for the investment analysis.

One clarification request CL2 was raised to clarify the approach / tool used to demonstrate additionality and clarify the validity of the input values and assumptions of data available at the time of decision making as per version 5 of the investment analysis guidelines, which was adequately addressed, resolved and closed in the revised PDD and revised financial calculation sheets.

Conclusion:

From the above, it may be observed that the project IRR for the project activity even after the sensitivity analysis is substantially below the benchmark and hence it may be concluded that the project is not economically or financially feasible without the revenue from the sale of certified emission reductions and the project is additional.

Prior consideration of CDM:

Start date of the project activity considered for this project is the date of issue of purchase order (12th August 2009)^{/8/} for WTG to Suzlon. This represents that the project participant has committed to expenditures related to the implementation of the project. The start date is prior to the date of publication of the PDD for global stakeholder consultation and after 2nd Aug 2008 and accordingly the requirements of new project activity (EB 62, Annex 13) is considered and evaluated. Project participant has informed UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status which was verified by DOE from publicly available list of project intimating "prior consideration" available at UNFCCC website. The notification, as evident at UNFCCC website dated 19/12/2009 is within six months of the project activity start date (12th August 2009). Also a communication (e-mail^{/26/}) by the PP has been sent to DNA confirming the same which was cross-checked by the validation team from the acknowledgement received. This is in compliance with EB 62 Annex 13 which states that UNFCCC and the DNA should be intimated of the CDM consideration. Also, the board resolution of the company dated 25 July 2009 was verified in which CDM revenue for the project activity was considered^{/27/}. Based on the findings, the validation team has determined and concluded that CDM was seriously considered in the decision to implement the project activity.

During the validation, a clarification was raised (CL3) regarding the appropriateness of the start date indicated based on the conceptualized capacity rather than the actual implemented capacity to which financial commitment was made. In response to this PP has revised the start date accordingly. Also it was clarified by the PP that serious CDM consideration was based on the board decision of the conceptualized project activity and the subsequent change in the project capacity during implementation was unforeseen. Details of the findings and resolution are as in Table 3 of Appendix A of this report.

3.5 Monitoring Plan

The project uses approved monitoring methodology "Grid connected renewable electricity generation", AMS I.D version 17.

With respect to the project activity only one parameter, i.e. the amount of electricity supplied to the grid (EG_y in MWh) is continuously monitored, hourly measured and recorded on a monthly basis. The generated electricity is connected to the metering arrangement No 57, 58, stepped up twice, first at 33 kV and transmitted through 33 kV feeder line feeding 220 kV Ketu kalan GSS (pooling station) of Suzlon which is further connected to 220 kV GSS, Tinwari, District of Jodhpur. The

electricity is sold (fed to grid) at 220 kV based on the Main meter reading (joint meter reading) and verified from check meter. The net electricity supplied to the grid at 220 kV metering point is apportioned to each WTG based on the LCS reading. The on-site visit confirmed that net electricity supplied to the grid is measured through the meter readings of the bi-directional tri-vector energy meters installed by the electricity board which have facility to measure export and import of energy on an hourly basis.

Description of the monitoring plan

According to the AMS I.D methodology, there are only 2 variables that a windmill project needs to monitor. These are EG_y (Energy Supplied to Grid) and $EF_{grid,CM,y}$ (Grid Emission Factor). $EF_{grid,CM,y}$ has been taken as ex-ante and remains constant throughout the crediting period. EG_y is monitored and measured as explained above.

The monitoring plan describes requirements for calibration of all the measurement equipment used for monitoring the project activity variables. The Main and Check meters are calibrated as per Rajasthan State Electricity Board (RSEB) practices. The same was confirmed from O & M personnel during on-site visit and has been included in the revised PDD. The monitoring /recording frequency for EG_y matches with that of the methodology, viz. hourly measurement and at least monthly recording. The net electricity supplied to the grid is cross checked with the sales receipts^{/23/}. PP has included a few other variables in the monitoring plan (total electricity imported, total electricity exported and line loss). The validation team therefore agrees that the project activity meets all the applicability conditions and all other stipulations required by the selected approved methodology AMS I.D for monitoring.

The validation team physically verified the metering system installed at the WTG and at the substation of the project activity. The validation team confirmed that the description in the revised PDD represents the metering system available at the project activity site.

The generated electricity data will be directly used for calculation of baseline emissions after cross checking with the electronic records maintained by Suzlon in the CMS in electronic format. PP has provided measures for electronic archiving of all the monitored data and its availability for 2 years after the end of the last crediting period. The validation team therefore concludes that the monitoring plan adequately describes the collection and archiving of the data used for the calculation of the baseline emission.

Section 7.2 of the PDD version 04 clearly describes the responsibility and authority for registration, monitoring, measurement, reporting and archiving. The O & M services for the WTGs have been contracted to competent service personnel from Suzlon Infrastructure Services Ltd, as evidenced from the O & M agreement^{/22/}.

Two CARs (CAR 4 and CAR 5), were raised. CAR 4 was raised with regard to the monitoring practices practiced, the apportioning & calculation of electricity supplied to grid by individual WTGs based on measured data of gross generation at the controller of WTG and joint meter reading of wind farm (feeder) was not described and evident from PDD. CAR 5 was raised as the frequency of calibration of the monitoring equipment as mentioned in the PDD (was not determined??) was not in linewith the requirements of EB 52 Annex 60. The issues were adequately addressed, resolved and closed in revised PDD version 4. The resolution of each CAR and CL is represented in Table 3: Resolution of Corrective Action and Clarification Requests.

3.5.1 Parameters determined ex-ante

The following parameters were available during the validation and will remain fixed throughout the crediting period:

- i) Grid emission factor ($EF_{CO_2, grid} = 0.9225 \text{ tCO}_2/\text{MWh}$)
- ii) Operating margin CO_2 emission factor in year y ($EF_{grid OM, y} = 1.005 \text{ tCO}_2/\text{MWh}$)
- iii) Build margin CO_2 emission factor in year y ($EF_{grid BM, y} = 0.675 \text{ tCO}_2/\text{MWh}$)
- iv) Plant load factor (was determined and estimated ex-ante) = 22%

The grid emission factor was calculated from the operating margin CO_2 emission factor and build margin CO_2 emission factor, referenced from CEA database version 05 while the PLF was evaluated based on the EB 48 guidelines 11, para 3 a, b) The project activity leads to zero emissions and leakage is not to be considered, since it is a small scale renewable energy project.

3.5.2 Parameters determined ex-post

The baseline and project emissions parameters that are to be monitored ex-post are indicated in Section B.7.1 of the PDD;

- i) Net electricity supplied by project activity to the grid in year y (EG_y , kWh)
- ii) The summation of total electricity generated at the controller from all the WTGs or WTG including project activity connected to single feeder at a particular site.
- iii) Electricity generation measured at the individual WTG controller of project activity.
- iv) Total electricity exported by all WTGs (including project activity) connected to single common feeder measured at the substation feeder meter.
- v) Total electricity imported as measured at the substation feeder of all wind turbines (including project activity) connected to the single common feeder.

The GHG indicators, parameters, monitoring methods, frequencies and the measurement equipment were considered to be reasonable and appropriate. The parameter EG_y will allow the calculation of the baseline emissions in a proper manner as there are no project emissions and leakage in the current project activity.

3.6 Calculation of GHG Emissions

The values used in the spreadsheet^{/28/} for calculating the CERs were verified and compared with the values indicated in the revised PDD Version 04^{/2.1/}. The validation team has also verified that the formulae used were correctly applied in the spreadsheets and the project emissions have been determined using guidance provided by the approved methodology (AMS I.D version 17) and tool to calculate the emission factor for an electricity system (version 02). All assumptions and data used by the PP are listed in the revised PDD, including their references and sources. The values are considered reasonable in the context of the proposed CDM project activity. All estimates of the baseline emissions can be replicated using the data and parameter values provided in the revised PDD.

Since most estimates for the prognosis of emissions reductions are derived from accepted National sources, it is reasonable to assume that they are accurate. The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. In conclusion, it can be stated that the project emissions will be lesser, compared to the

baseline scenario by 10,240 tCO₂ equivalent per year over a crediting period of 10 years.

3.7 Environmental Impacts

Wind energy projects are considered environmentally safe and the relevant compliance as verified from the No Objection Certificate issued by the relevant State Electricity Boards ^{/29/}. Host country regulations do not require analysis of environmental impacts and /or EIA clearance for wind power projects (as per Ministry of Environment and Forest, Government of India's notification no.SO 1533 dated September 2006) ^{/30/}. Also, the size of the project is a small scale CDM project for which the validation team considered that the project will not have adverse environmental impact.

3.8 Comments by Local Stakeholders

A formal consultation process with local stakeholders was held on 29 October 2009 at Gram Panchayat Bhawan, Ratan ka bas, Shergarh Tehsil, Jodhpur to know stakeholder concerns and views regarding the project.

The invitation ^{/31/} for the local stakeholder consultation meeting was made through the regional newspaper "Dainik Bhaskar", nine days prior to the stakeholder consultation process requesting all employees of Devki Builders, community members, suppliers, environmental regulators, NGOs, local citizen and others to attend the meeting. The meeting was attended by the relevant, identified stakeholders including State Electricity Utility, local people, technology providers, members of local Governing Body and Electricity Board Engineers. Summary of the comments is mentioned in Section E of the PDD. The information regarding the stakeholders meeting was verified during the site visit by interviewing the relevant members who participated and were present at the meeting and checked with the details provided in the minutes of meeting ^{/32/}. The interviewed persons confirmed the information provided in the PDD and the documents/ record of the local stakeholder consultation process.

DNA of India (NCDMA) or any other related body does not specify any standard procedures / requirements for conducting local stakeholder consultation. However the consultation process was carried out as per the requirements of the CDM project.

One CL (CL 3) was raised with regard to the choice of venue of local stakeholder consultation process which was other than the project site village. The reason for the choice of venue was adequately explained and addressed in revised PDD which is represented in Table 3: Resolution of Corrective Action and Clarification Requests.

4.0 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PDD version 1 dated 8 June 2010 was made available for parties, stakeholders and UNFCCC accredited NGOs to comment via UNFCCC website (<https://cdm.unfccc.int/Projects/Validation/DB/AQILJI09SMKMW8P5B641ZY8GFZ0A19/view.html>) from 29 June 2010 to 28 July 2010 for a period of 30 days.

No comments were received during this period.

5.0 VALIDATION OPINION

SIRIM QAS Intl. performed a validation of the proposed CDM project "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd." in India. The validation was performed on the basis of the UNFCCC criteria for the Clean Development Mechanism and the host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. Using a risk based approach, the review of the project design documentation and the subsequent follow-up interviews provided SIRIM QAS Intl. with sufficient evidence to determine the fulfillment of the stated criteria.

The project participant is M/s Devki Builders Pvt. Ltd. The project is a unilateral project, the party involved and the host country is India. India fulfills the requirements to participate in the CDM. The DNA of India has confirmed that the project assists in achieving sustainable development and has authorized the project participant to request the project to be considered for registration with the UNFCCC.

The proposed CDM project is eligible as a type I small-scale CDM project activity as the total installed capacity of renewable electricity generation is less than 15 MW.

The project applies the simplified baseline and monitoring methodology of AMS I.D. version 17, "Grid connected renewable electricity generation".

The project activity involves renewable electricity generation of 6.0 MW from wind. The project capacity is fixed and no addition will be made in capacity during the crediting period. The generated electricity will replace the baseline "Grid electricity". The project will result in the reduction of (10,240 tCO₂e / annum) greenhouse gas emissions that are real, measurable and give long term benefits to the mitigation of climate change.

It is demonstrated that the project faces an investment barrier that would prevent its implementation without the CDM revenue. The project IRR without the CER revenue is 8.90% and considering the revenue from the sale of CER, the project IRR works out to be 11.89%, which crosses the benchmark of 11.50%. Emissions reductions from the project are hence additional to any that would occur in the absence of the project activity.

The GHG emission calculations are documented in a complete and transparent manner. The formulae and methodologies for accounting GHG emissions are appropriate and emission factors are deemed to be of sufficient accuracy. The total emission reductions from the project as envisaged in the PDD version 04 dated 18 November 2011 are 102,400 tCO₂e over the 10-year crediting period. The emission reductions forecast has been checked and it is deemed likely that the stated amount is achievable on the basis that the underlying assumptions do not change.

The monitoring plan is line with the approved monitoring methodologies of AMS I.D. The plan adequately addresses all necessary information for monitoring and reporting of emissions reductions due to the project activity. Responsibilities and authorities for project management, monitoring and reporting, and the data quality control and quality assurance procedures have been described in the PDD are implemented.

There is no requirement for analysis of environmental or EIA by the host country India. The project is not likely to create any significant adverse environmental impacts. The project complies with all environmental regulations of India.

In summary, it is SIRIM QAS Intl.'s opinion that the " Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd." as described in the PDD version 04 dated 18 November 2011, meets all



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relevant UNFCCC requirements for the CDM, is eligible as category I and Type I of the small-scale CDM project activities and correctly applies the baseline and monitoring methodology specified in AMS I.D (version 17). As such, SIRIM QAS Intl. recommends the registration of the project as a CDM project activity.

Prepared by :

A handwritten signature in blue ink, appearing to read 'G. Vishnu'.

Dr.G.Vishnu
(Validation Team Leader)

Approved by :

A handwritten signature in blue ink, appearing to read 'Parama Iswara Subramaniam'.

Parama Iswara Subramaniam
(DOE Representative)

6.0 REFERENCES

Information Reference List

Ref. No.	Document or Type of Information
/1/	VV Manual Version01.2 (http://cdm.unfccc.int/Reference/Manuals/index.html)
/2/	PDD version 01 dated. 08-06-2010
/2.1/	Revised PDD version 04, dated 18/11/2011
/3/	LoA from NCDMA dated 15.04.2010
/4/	Modalities of Communication
/5/	Land Document
/6/	Commissioning certificate dated 15 th October 2009
/7/	PPA, Dated 22 nd September 2009
/8/	Purchase order dated 31 st July 2009
/9/	Tool to calculate the emission factor for an electricity system, Version 2.
/10/	CEA Database version 5.0
/11/	The PLF provided to banks while applying the project activity for project financing
/12/	Generation Record invoice for electricity sold
/13/	Tool for the demonstration and assessment of additionality", (Version- 06.0.0, Annex- 21, EB- 65).
/14/	Structure of interest rates issued by Reserve Bank of India
/15/	Guidelines of the tariff order for renewable energy dated July 2009
/16/	Offer/ proposal letter from Suzlon for supply of WTG dated 15 July 2009
/17/	Insurance certificate
/18/	Purchase order issued to Suzlon dated 12 th August 2009
/19/	CERC 2009 guidelines on tariff for renewable energy generation/
/20/	RERC guidelines dated Sept. 2006
/21/	RERC order Tariff dated15-03-2007
/22/	O & M agreement with the equipment supplier
/23/	Internal assessment of administrative cost evaluated by a qualified Chartered Accountant
/24/	Actual Loan sanction letter
/25/	Revised financial calculation sheet
/26/	Communication (e-mail ^{1/25/}) dated 19-12-2009 sent to DNA by Devki Builders
/27/	Board Resolution, dated 25/07/2009
/28/	CER calculation spreadsheet
/29/	No Objection Certificate issued by RERC for PPA.
/30/	Government of India's notification no.SO 1533 dated September 2006 (http://envfor.nic.in/legis/eia/so1533.pdf)
/31/	Advertisement inviting Stake holder's meeting public notice, Nav Bharat Times 20/10/2009
/32/	Stakeholder's meeting minutes

APPENDIX A
VALIDATION PROTOCOL
Project No. SQAS-CDM-ES12880028

Table 1 Mandatory Requirement for Small Scale Clean Development Mechanism (CDM) Project Activities

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3	Kyoto Protocol Art. 12.2 Simplified Modalities and Procedures for Small Scale CDM Project Activities §30 and 31	OK	The Project will reduce GHG emissions. However in Section A.3 no Annex I party has been identified by the PP and this is a unilateral project.
2. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof	Kyoto Protocol Art. 12.2, Simplified Modalities and Procedures for Small Scale CDM Project Activities §40a	OK	Section A.3 of the PDD indicated that India (non-annex I party) is the host country and Section A.2 of the PDD justifies the compliance to National SD requirements. The confirmation of the host country for the same has also been obtained (Ref No. 4/22/2009/CCC dated 15 th April 2010).
3. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC	Kyoto Protocol Art. 12.2,	OK	Section A.3 of the PDD indicated that India (non-annex I party) is the host country and Section A.2 of the PDD justifies the compliance to National SD requirements.
4. The project shall have written approval of voluntary participation from the designated national authorities of each party involved	Kyoto Protocol Art. 12.5a, Simplified Modalities and Procedures for Small Scale CDM Project Activities §23a	OK	Letter of approval from designated national authority of India, NCDMA has been issued on 15 th April 2010. (Ref No. 4/22/2009/CCC)
5. The emission reductions should be real, measurable and give long-term benefits related to the mitigation of climate change	Kyoto Protocol Art. 12.5b	OK	The continuous monitoring of the parameters in the monitoring plan in Section B.7 of the PDD will result in the project contributing to emission reductions which are real, measurable and give long-term benefits related to the mitigation of

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
			climate change
6. Reduction in GHG emissions must be additional to any that would occur in absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity	Kyoto Protocol Art. 12.5.c, Simplified Modalities and Procedures for Small Scale CDM Project Activities §26	Depends on closure of CL2	In section B.5 Of the PDD it is justified by means of investment barrier that Reduction in GHG emissions are additional to any that would occur in absence of the project activity
7. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance	Marrakech Accords (Decision 17/CP.7)	OK	In section A 4.4 of the PDD it has been mentioned that the project proponent confirms that public funding from Annex I and diversion of Other Development Agencies (ODA) is not involved in this project activity. The entire project cost is met by the project participants and in part by the debt finance from Indian banks.
8. Parties participating in the CDM shall designate a national authority for the CDM	Marrakesh Accords (CDM modalities§ 29)	OK	India has designated a National Clean Development Mechanism (CDM) Authority for the purpose of protecting and improving the quality of environment in terms of the Kyoto Protocol.
9. The host country shall be a Party to the Kyoto Protocol	Marrakesh Accords (CDM modalities§ 30)	OK	The host country, India ratified the Kyoto Protocol on 26 th August 2002.
10. The proposed project activity shall meet the eligibility criteria for small scale CDM project activities set out in § 6 (c) of the Marrakesh Accords and shall not be a debundled component of a larger project activity	Simplified Modalities and Procedures for Small Scale CDM Project Activities §12a,c	OK	The Proposed project activity meets the eligibility criteria for small scale CDM project activity and the confirmation that the small-scale project activity is not a debundled component of a larger project activity is evident from Section A 4.5 of the PDD and site visit.

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
11. The project design document shall conform with the Small Scale CDM Project Design Document format	Simplified Modalities and Procedures for Small Scale CDM Project Activities, Appendix A	OK	Yes, the latest version of Project Design Document Form (CDM SSC PDD) Version 03 in effect as of: 22 December 2006 has been used
12. The proposed project activity shall confirm to one of the project categories defined for small scale CDM project activities and uses the simplified baseline and monitoring methodology for that project category	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22e	OK	The Project activity confirms to the category 'Grid Connected Renewable Electricity Generation', and uses the latest simplified baseline and monitoring methodology AMS I.D Version 16, EB 54 Valid from 11 th June 10.
13. Comments by local stakeholders are invited, and a summary of these provided	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22b	Depends on closure of CL-3	Section E of the PDD has described the procedure by which comments by local stakeholders are invited, and a summary of this is also provided.
14. If required by the host country, an analysis of the environmental impacts of the project activity is carried out and documented	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22c	OK	Host country regulations do not require EIA clearance for wind power projects prior to their installation.
15. Parties, stakeholders and UNFCCC accredited NGOs have been invited to comment on the validation requirements and comments have been made publicly available	Simplified Modalities and Procedures for Small Scale CDM Project Activities §23b,c,d	OK	The PDD version 01 dated 08 th June 2010 was made available for Parties, stakeholders and UNFCCC accredited NGOs to comment via UNFCCC website from 29 th June 2010 to 28 th July 2010, for a period of 30 days. No comments were received during this period.

Table 2 Requirements Checklist

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
A. Project Description The project design is assessed.				
A.1. Small scale project activity It is assess whether the project qualifies as small scale CDM project activity.				
A.1.1. Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	DR SV	Yes, the project qualifies as a small scale CDM project activity. The total installed capacity is 6.0 MW, which is within the prescribed limits of 15 MW renewable energy project activity (Type (i)) as per the simplified Modalities & Procedures. The project will continue to be in category of Small scale throughout the crediting period. The on-site visit confirmed the same	OK	OK
A.1.2. The small scale project activity is not a debundled component of a larger project activity?	DR SV	Section A.4.5 of the PDD was evaluated based on the requirements of Appendix C of the Simplified Modalities and Procedures for Small-Scale CDM projects which specify the criteria of debundling of a large scale project activity and EB 54 Annex13. It was concluded that this project is not a part of debundled component of a larger project activity. The Site visit confirmed that there is no nearby wind mill owned by the PP.	OK OK	OK OK
A.1.3. Does proposed project activity confirm to one of the project categories defined for small scale CDM project activities?	DR/SV	Yes, As per 'Appendix B to the simplified modalities and procedures for small – scale CDM project activities' the project activity falls under Category I.D. "Grid Connected Renewable Electricity Generation".	OK	OK

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
A.2. Project Design Validation of project design focuses on the choice of technology and the design documentation of the project.				
A.2.1. Are the project's spatial (geographical) boundaries clearly defined?	DR/SV	Yes, as mentioned in A.4.1.4, The project activity is located in Rajasthan states of India. The Geographical coordinates for the WTGs are, 1. RKBNL6 N26 27 38.5 E72 29 21.4 2. RKB086 N26 30 18.0 E72 33 53.2 3. RKB088 N26 31 23.7 E72 34 11.8 4. RKB089 N26 31 35.0 E72 34 05.4 However the following CL is raised Please Clarify The PDD gives the location detail of the Project activity (in section A.4 of PDD) As village Bastava Mataji, Taluka Dharampur, But the land document indicates the Villages as KUI India (1.21 hectare) and Bastava Mataji (3.63 hectare) And Taluka as Shergarh. The Schematic representation Indicates land at different location whereas the site visit confirmed that the project activity is on one continuous piece of land.	CL1	OK
A.2.2. Are the project's system (components and facilities used to mitigate GHG's) boundaries clearly defined?	DR/SV	Yes, the project boundary is clearly defined and is in accordance with the requirements of the applicable methodology AMS I.D methodology.	OK	OK
A.2.3. Does the project design engineering reflect current good practices?	DR/SV	Yes, the project design engineering reflects current good practices.	OK	OK
A.2.4. Will the project result in technology transfer to the host country?	DR/SV/ I	There is no technology transfer to the host country; Indigenous manufacturers/OEM supplier exists in the country.	OK	OK

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
A.2.5. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period? Does the project make provisions for meeting training and maintenance needs?	DR/ SV /I	Yes, the project requires extensive initial training and maintenance. OEM has been contracted for initial Operation & Maintenance for a period of 4 years (as indicated in B.7.2 of PDD). Instead of providing internal training to Devki Builders Pvt. Ltd personnel for O & M, the entire Operation & Maintenance services has been outsourced to competent services agencies Suzlon. The site visit and interviews confirmed the same	OK	OK
A.2.6. Is the project description/ technical specification of project provided in the PDD in line with the observation during site visit, DPR. Is it correct and consistent throughout the PDD?	DR/SV	The following information provided are Not correct / consistent in PDD. 1. The CER indicated in PDD is not consistent throughout the PDD. 2. The value of Emission Factor Build Margin in section B.6.1 is not consistent with annex 3 of PDD. 3. Repeated attempts made to send test mail at the contact e-mail provided in Annex 1 of PDD failed, indicating the contact e-mail is not correct/ non functional.	CAR 1.	OK
A.3. Contribution to Sustainable Development The project's contribution to sustainable development is assessed				
A.3.1. Has the host country approved this project as a CDM project?	DR	Yes the Host Country has approved this project as CDM project vide Letter no 4/22/2009-CCC datedt. 15-04-2010.	OK	OK

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
A.3.2. Will the project create other environmental or social benefits than GHG emission reductions?	DR SV/I	Yes, as mentioned in Section A.2 of the PDD, The project activity generates employment opportunities during the construction as well as the operation of the WTGs. This has been confirmed during site visit and interviews undertaken.	OK	OK
A.3.3. Will the project create any adverse environmental or social effects?	DR	No, The project is using renewable source like wind to generate electricity which is a clean technology and no adverse environmental or social effects are envisaged.	OK	OK
A.3.4. Is the project in line with sustainable development policies of the host country?	DR	The project is in line with sustainable development policies of the host country. The LoA confirms the same.	OK	OK
A.3.5. Is the project in line with relevant legislation and plans in the host country?	DR	Yes, The project is in line with the legislation and plans in the host country. http://envfor.nic.in/legis/eia/so1533.pdf	OK	OK
B. Project Baseline The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.				
B.1. Baseline Methodology It is assessed whether the project applies an appropriate baseline methodology.				
B.1.1. Is the selected baseline methodology in line with the baseline methodologies provided for the relevant project category?	DR/SV	Yes, as provided in section B.1 of PDD, The Selected Baseline Methodology is in line with the baseline methodologies provided for the small scale project category.	OK	OK
B.1.2. Is the baseline methodology applicable to the project being considered?	DR/SV	The applicability condition of methodology as evaluated in Section B.2 of PDD does not represent and describe the true / correct detail of the project scenario. The evaluation and justification of the applicability of methodology AMS ID V16 is not demonstrated	GAR-2.	OK, .

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		correctly.		
B.2. Baseline Determination It is assessed whether the project activity itself is not a likely baseline scenario and whether the selected baseline represents a likely baseline scenario.				
B.2.1. Is it demonstrated that the project activity itself is not a likely baseline scenario due to the existence of one or more of the following barriers: investment barriers, technology barriers, barriers due to prevailing practice or other barriers?	DR/SV	<p>A. It is Not evident if attachment A to Appendix B or the additionality tool has been used to establish and demonstrate additionality of the project.</p> <p>B. O & M CHARGES:</p> <p>As per RERC guidelines, O & M charges are prescribed @ 1.50 % and this includes all other expenses (manpower, consumables, spares, turbine and other electrical system maintenance, road maintenance, insurance, other statutory duties, working capital and interest liability). In the IRR workings, this has been assumed Rs. INR 8.00 lakhs which works out to 1.78 %.</p> <p>C. . INSURANCE COST:</p> <p>As per RERC guidelines (as stated above), the 1.50 % is inclusive of insurance charges, whereas even after applying a rate of 0.15 % a sum of Rs. 0.15 lakh has been added as insurance charges.</p> <p>D. DEBT: EQUITY RATIO:</p> <p>The cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the</p>	CL-2:	OK

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		<p>previous three years. – EB guidance 51 para no. 11</p> <p>E. It is observed that, following years are 1.25% deducted. Kindly clarify.</p> <p>6th year 10th year 14th year and 18th year</p> <p>Totally 5 % reduced from 6th year onwards.</p> <p>F. URLs / OTHER AUTHENTIC EVIDENCES:</p> <p>Pl. furnish the relevant authentic URLs / evidences for the following assumed data:</p> <p>Rs. 4.28/unit selling price of electricity 5.00 % of Depreciation rate (Companies Act) 80% of Depreciation rate (Income tax Act) MAT – 17% IT – 33.99% Interest rate – 12 % Derated – 1.25% (6,10,14, & 18th years) Losses (Machine and Grid Unavailability) – 5%</p> <p>G. TERM LOAN – RATE OF INTEREST:</p> <p>Interest should be calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by</p>		

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		<p>the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years. – EB guidance 51 para no. 11</p> <p>H. TAX CALCULATION</p> <p>It is observed that MAT @ 17% has been applied. The rate was not in vogue at the time of investment decision.</p> <p>I. It is observed that, Administrative cost have been taken Rs. 10.00 lacs p.a. Kindly provide the evidence</p> <p>J. The project chronology with reference to the evidences - offer from Suzlon, management decision, the modification in project configuration etc is not evident from section B.5 of PDD.</p> <p>K. At the time of investment decision for the project, the parameter Debt/ Equity ratio remains a variable which has considerable impact on profitability. Please justify why sensitivity need not be carried on Debt/equity ratio.</p> <p>L. The excel sheet for financial calculation presumes a cost (purchase) for the land, whereas other supporting documents indicates it as a leased land.</p>		

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		<p>M. The Assumptions made to demonstrate and establish additionality is not clear / evident in section B.5 of PDD. The offer letter from Suzlon dated 15th July 2009 and the subsequent board resolution on 25th July mention the project capacity as 7.5 MW (5 WTGs) while another offer letter dated 31st July 2009 mentions the cost /WTG and the subsequent board resolution mentions the project capacity for 6 MW (4 WTGs). Final amended purchase order is for 6 WTGs dated 16th August 2009.</p> <p>N. As the LoA, PCN submitted to DNA indicates 6 MW capacity, clarify on the appropriateness of</p> <ul style="list-style-type: none"> the earlier board resolution as evidence for serious CDM consideration of the implemented project activity the earlier purchase order as evidence of start date indicating serious commitment of the investor to the implemented project activity 		
B.2.2. Is the application of the baseline methodology and the discussion and determination of the chosen baseline transparent and conservative?	DR	The grid emission factor represented in section B.4 of PDD (0.923 tCO ₂ /MWh) and derived in section B.6.1 is Not conservative, considering rounding off to 3 decimal place.	CAR 3.	OK
B.2.3. Are relevant national and/or sectoral policies and circumstances taken into account?	DR	Yes, the National and Sectoral policies and circumstances are taken into account.	OK	OK
B.2.4. Is the baseline selection compatible with the available data?	DR	Yes, the baseline selection is compatible with the available data. However it depends on closure of CAR 2.	Depends on closure of CAR 3.	OK
B.2.5. Does the selected baseline represent	DR/SV	Yes, selected baseline is as per the para 10, 11 of the	OK	OK

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SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
the most likely scenario describing what would have occurred in absence of the project activity?		applied methodology this represents most likely baseline scenario which would have occurred in the absence of the project activity.		
C. Duration of the Project / Crediting Period It is assessed whether the temporary boundaries of the project are clearly defined.				
C.1.1. Are the project's starting date and operational lifetime clearly defined?	DR/I	Yes, in section C.1 of PDD the start date of the project is 16/08/2009 (As per the date of real action which is the date of placement of first purchase order) and the operational lifetime of the project is 20 years.	OK	OK
C.1.2. Is the crediting period clearly defined (seven years with two possible renewals or 10 years with no renewal)?	DR/I	Yes, the project has opted for fixed crediting period of 10 years.	OK	OK
D. Monitoring Plan The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed.				
D.1. Monitoring Methodology It is assessed whether the project applies an appropriate monitoring methodology.				
D.1.1. Is the selected monitoring methodology in line with the monitoring methodologies provided for the relevant project category?	DR	Yes, the selected monitoring methodology is in line with the monitoring methodologies provided for the relevant project category.	OK	OK
D.1.2. Is the monitoring methodology applicable to the project being considered?	DR	Depends on closure of CAR 2.	Depends on closure of CAR 2.	OK
D.1.3. Is the application of the monitoring methodology transparent?	DR/SV/I	Section B.7.1 indicates the measurement of one parameter Net export of electricity to the Grid. But it was observed during site visit that Net electricity supplied to the grid is not measured but calculated from	CAR 4	OK

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CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		<ul style="list-style-type: none"> A calculated value of gross electricity supplied by WTG (export) A calculated value of Gross import by the project activity (Import).. Also the procedure of calculating (apportioning) the gross import & gross Export has not been described in PDD..		
D.1.4. Will the monitoring methodology give opportunity for real measurements of achieved emission reductions?	DR/SV	Real achieved emission reduction can be calculated out of the Monitoring & measurement of parameter EGy (export & import).	OK	OK
D.2. Monitoring of Project Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.				
D.2.1. Are the choices of project emission indicators reasonable?	DR/SV	In accordance with the applied methodology AMS I.D., project emission is not considered. The auxiliary consumption (Import from grid) has been deducted in the baseline.	OK	OK
D.2.2. Will it be possible to monitor / measure the specified project emission indicators?	DR/SV	Not Applicable under the applied methodology AMS. I.D.	OK	OK
D.2.3. Do the measuring technique and frequency comply with good monitoring practices?	DR/SV	Not Applicable under the applied methodology AMS. I.D.	OK	OK
D.2.4. Are the provisions made for archiving project emission data sufficient to enable later verification?	SV/ I	Not Applicable under the applied methodology AMS. I.D.	OK	OK
D.3. Monitoring of Leakage It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.				
D.3.1. If applicable, are the choices of leakage indicators reasonable?	DR	Not Applicable under the applied methodology AMS. I.D.		
D.3.2. If applicable, will it be possible to monitor / measure the specified leakage	DR	Not Applicable under the applied methodology AMS. I.D.		

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SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
indicators?				
D.3.3. If applicable, do the measuring technique and frequency comply with good monitoring practices?	DR	Not Applicable under the applied methodology AMS. I.D.		
D.3.4. If applicable, are the provisions made for archiving leakage data sufficient to enable later verification?	DR	Not Applicable under the applied methodology AMS. I.D.		
D.4. Monitoring of Baseline Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.				
D.4.1. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	DR/SV	Yes, the choice of baseline indicators for baseline emissions, namely EG_y and EF_{CO_2} are reasonable and in line with the applied methodology.	OK	OK
D.4.2. Will it be possible to monitor / measure the specified baseline emission indicators?	DR SV	Yes, it is possible to monitor / measure the specified baseline emission indicators such as EG_y , $EF_{CO_2,y}$ Site visit confirmed the same	OK	OK
D.4.3. Do the measuring technique and frequency comply with good monitoring practices?	DR/SV/ I	Continuous monitoring, hourly measurement and monthly recording comply with good monitoring practices as well as the applied methodology.	OK	OK
D.4.4. Are the provisions made for archiving baseline emission data sufficient to enable later verification?	DR/SV/ I	Yes, provisions are made for archiving baseline emission data till two years beyond the crediting period, sufficient to enable later verification.	OK	OK
D.5. Project Management Planning It is checked that project implementation is properly prepared for and that critical arrangements are addressed.				
D.5.1. Is the authority and responsibility of project management clearly described?	DR/SV/ I	Yes, this has been clearly described in B.7.2, responsibility of project management is with project head.	OK	OK
D.5.2. Is the authority and responsibility for registration monitoring measurement and reporting clearly described?	DR/SV/ I	Yes, The head at functional level project project management is responsible for project execution including monitoring and measurement of GHG	OK	OK

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SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		emission. The overall responsibility lies with Mr. Surendra Agarwal (Director) this was discussed and clarified during site visit.		
D.5.3. Are procedures identified for training of monitoring personnel?	DR/SV/ I	Procedures for training of monitoring personnell have been identified. The entire Operation & Maintenance service has been outsourced to competent services agencies (Suzlon Infrastructure Services Ltd. (SISL). The site visit and interviews confirmed the same	OK	OK
D.5.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	SV/I	Emergency procedures and preparedness has been identified for unintended emissions like fire, and site personnel have been trained for the same.	OK	OK
D.5.5. Are procedures identified for calibration of monitoring equipment?	DR/SV/ I	As evident from section B.7.2 of PDD The responsibility of calibration lies with SUZION BUT The periodicity and other detail for calibration of monitoring equipment has not been mentioned” accordingly it is not evident whether the calibration practices of measuring & monitoring equipment are in line with the guidelines of UNFCCC	CAR-5	OK,
D.5.6. Are procedures identified for maintenance of monitoring equipment and installations?	DR/SV/ I	Yes, the procedures have been identified for maintenance of monitoring equipment and installations. The maintenance /services has been outsourced to competent agencies like Suzlon).	OK	OK
D.5.7. Are procedures identified for monitoring, measurements and reporting?	DR/SV/ I	Yes, procedures have been identified and implemented for monitoring, measurements and reporting. Net electricity supplied to the grid is measured through the meter readings of the energy meters installed by electricity board, which have facility to record export and import of energy. The monitoring of ‘net electricity supplied to the grid’ is calculated as per the details provided in Power Purchase Agreement. Every month these meter readings are jointly recorded by electricity board representative and plant personnel.	OK	OK

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SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
		The quantity of net electricity supplied is cross-verified from the invoice raised on respective state Electricity Boards by the project proponent.		
D.5.8. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	DR/SV/ I	Yes, procedures have been identified and implemented for day-to-day records handling. The monitored data is maintained as hard copy in the form of Joint Meter Reading (JMR). A copy of this data is made available with the state electricity board's official and PP at the plant site.	OK	OK
D.5.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	DR I/SV	Yes procedures have been identified for dealing with possible monitoring data adjustments and uncertainties in accordance with the PPA. The evaluation during the site visit and interaction with the O & M personnel confirmed the same	OK	OK
D.5.10. Are procedures identified for internal audits of GHG project compliance with operational requirements as applicable?	DR/I/S V	Yes, procedures have been identified and implemented for internal audits of GHG project compliance with operational requirements as mentioned. (Suzlon is ISO 9001 certified company and internal as well as external audits are carried periodically).	OK	OK
D.5.11. Are procedures identified for project performance reviews?	DR/I/S V	Yes, procedures have been identified and implemented for project performance reviews as mentioned above.	OK	OK
D.5.12. Are procedures identified for corrective actions?	DR/I/S V	Yes, procedures are identified and practiced for corrective actions as mentioned above.	OK	OK
E. Calculation of GHG emission It is assessed whether all material GHG emission sources are addressed and how sensitivities and data uncertainties have been addressed to arrive at conservative estimates of projected emission reductions.				
E.1. Project GHG Emissions The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.				

* MoV = Means of Verification, DR= Document Review, I= Interview

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
E.1.1. Are all aspects related to direct and indirect project emissions captured in the project design?	DR	Not Applicable under the applied methodology AMS. I.D as para 20 of the methodology states that for most renewable energy project activities, $PE_y = 0$.	OK	OK
E.1.2. Have all relevant greenhouse gases and sources been evaluated?	DR	Not Applicable under the applied methodology AMS. I.D as para 20 of the methodology states that for most renewable energy project activities, $PE_y = 0$.	OK	OK
E.1.3. Do the methodologies for calculating project emissions comply with existing good practice?	DR	Not Applicable under the applied methodology AMS. I.D as para 20 of the methodology states that for most renewable energy project activities, $PE_y = 0$.	OK	OK
E.1.4. Are the calculations documented in a complete and transparent manner?	DR	Not Applicable under the applied methodology AMS. I.D as para 20 of the methodology states that for most renewable energy project activities, $PE_y = 0$.	OK	OK
E.1.5. Have conservative assumptions been used?	DR	Not Applicable under the applied methodology AMS. I.D as para 20 of the methodology states that for most renewable energy project activities, $PE_y = 0$.	OK	OK
E.1.6. Are uncertainties in the project emissions estimates properly addressed?	DR	Not Applicable under the applied methodology AMS. I.D as para 20 of the methodology states that for most renewable energy project activities, $PE_y = 0$.	OK	OK
E.2. Leakage It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed.	DR			
E.2.1. Are leakage calculation required for the selected project category and if yes, are the relevant leakage effects assessed?	DR	Not Applicable under the applied methodology AMS. I.D as para 22 of the methodology states that only If the energy generating equipment is transferred from another activity, leakage is to be considered.	OK	OK
E.2.2. Are potential leakage effects properly accounted for in the calculations (if applicable)?	DR	Not Applicable under the applied methodology AMS. I.D as para 22 of the methodology states that only If the energy generating equipment is transferred from another activity, leakage is to be considered.	OK	OK

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
E.2.3. Do the methodologies for calculating leakage comply with existing good practice (if applicable)?	DR	Not Applicable under the applied methodology AMS. I.D as para 22 of the methodology states that only If the energy generating equipment is transferred from another activity, leakage is to be considered.	OK	OK
E.2.4. Are the calculations documented in a complete and transparent manner and (if applicable)?	DR	Not Applicable under the applied methodology AMS. I.D as para 22 of the methodology states that only If the energy generating equipment is transferred from another activity, leakage is to be considered.	OK	OK
E.2.5. Have conservative assumptions been used (if applicable)?	DR	Not Applicable under the applied methodology AMS. I.D as para 22 of the methodology states that only If the energy generating equipment is transferred from another activity, leakage is to be considered.	OK	OK
E.2.6. Are uncertainties in the leakage estimates properly addressed (if applicable)?	DR	Not Applicable under the applied methodology AMS. I.D as para 22 of the methodology states that only If the energy generating equipment is transferred from another activity, leakage is to be considered.	OK	OK
E.3.Baseline GHG Emissions The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.				
E.3.1. Is the baseline emission boundary clearly defined and do they sufficiently cover sources for baseline emissions?	DR, SV	Yes, the baseline emission boundary is clearly defined and it covers all sources for baseline emissions. The same was verified in the site visit	OK	OK
E.3.2. Are all aspects related to direct and indirect baseline emissions captured in the project design?	DR	Yes, all aspects related to direct baseline emissions have been captured in the project design. There are no indirect emissions for the project.	OK	OK
E.3.3. Have all relevant greenhouse gases and sources been evaluated?	DR	Yes, all relevant greenhouse gases and sources (as per the applied methodology) been evaluated.	OK	OK
E.3.4. Do the methodologies for calculating baseline emissions comply with existing good practice?	DR	Yes, the methodologies for calculating baseline emissions comply with existing good practice	OK	OK

* MoV = Means of Verification, DR= Document Review, I= Interview

SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
E.3.5. Are the calculations documented in a complete and transparent manner?	DR	Yes calculations are demonstrated in complete and transparent way	OK	OK
E.3.6. Have conservative assumptions been used?	DR	Yes, conservative assumptions have been used for calculation of emission reductions	OK	OK
E.3.7. Are uncertainties in the baseline emissions estimates properly addressed?	DR	Yes the uncertainties in baseline emission estimate are properly addressed as sources for data such as emission factor is based on authentic national database and PLF is assessed based on EB 48 guidelines	OK	OK
E.4.Emission Reductions Validation of baseline GHG emissions will focus on methodology transparency and completeness in emission estimations.				
E.4.1. Will the project result in fewer GHG emissions than the baseline case?	DR	Yes, The project will result in fewer GHG emissions than baseline case.	OK	OK
F. Environmental Impacts It is assessed whether environmental impacts of the project are sufficiently addressed.				
F.1.1. Does host country legislation require an analysis of the environmental impacts of the project activity?	DR	No, as mentioned in Section D.1 of PDD, for wind power projects there is no legislative requirement for analysis of environmental impacts. However the relevant NoC from the state regulatory authority has been submitted.	OK	OK
F.1.2. Does the project comply with environmental legislation in the host country?	DR	Yes, The project complies with environmental legislation in the host country. http://envfor.nic.in/legis/eia/so1533.pdf	OK	OK
F.1.3. Will the project create any adverse environmental effects?	DR	No, as mentioned in Section D.2 of the PDD, the project will not have any adverse impacts on environment	OK	OK
F.1.4. Have environmental impacts been identified and addressed in the PDD?	DR	There are no significant environmental impacts associated with the project activity.	OK	OK
G. Comments by Local Stakeholder Validation of the local stakeholder consultation				

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SIRIM QAS INTERNATIONAL SDN BHD

CHECKLIST QUESTION	MoV*	COMMENTS	Draft Concl.	Final Concl.
process.				
G.1.1. Have relevant stakeholders been consulted?	DR/SV/ I	Yes, relevant stakeholders have been consulted. For e.g. State Electricity Utility, Local people, Technology providers members of local governing body, Electricity Board Engineers.	OK	OK
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	DR	Yes, appropriate media was used to invite comments from the local stakeholders. The notice for local stakeholder consultation process was invited in the local Newspaper Dainik Bhaskar (vernacular language) on 20 th October 2009 10 days prior to the meeting.	OK	OK
G.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	DR/SV/ I	DNA of India (NCDMA) or any other related body does not specify any standard procedures / requirements for conducting local stakeholder consultation.	OK	OK
G.1.4. Has the stakeholder consultation process been carried out in a transparent manner as evidenced from PDD and relevant supporting documents?	DR/SV/ I	Yes, overall the local stakeholder consultation process was carried out in a transparent manner. However the following CL is raised: The local stakeholder consultation process was conducted in village Ratan Ka Bas whereas the project site is in village Bastwa Mataji	CL-3	OK,
G.1.5. Is a summary of the comments received provided?	DR	Yes, the summary of comments received is documented and verified during site visit.	OK	OK
G.1.6. Has due account been taken of any comments received?	DR	Stakeholders have given a positive feedback. PP has taken due account of the comments received.	OK	OK

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p><u>CAR 1</u></p> <p>The following information provided are Not correct / consistent in PDD.</p> <ol style="list-style-type: none"> 1. The CER indicated in PDD is not consistent throughout the PDD. 2. The value of Emission Factor Build Margin in section B.6.1 is not consistent with annex 3 of PDD. 3. Repeated attempts made to send test mail at the contact e-mail provided in Annex 1 of PDD failed, indicating the contact e-mail is not correct/ non functional. 	A. 2.6	<ol style="list-style-type: none"> 1. The CER indicated in PDD is now made consistent throughout the PDD (in version 2). 2. The value of Emission Factor Build Margin in section B.6.1 is corrected and is now consistent with annex 3 of PDD 3. E-mail shown in Annex 1 of PDD is now corrected and is functional 	<p>The consistency of CER is maintained throughout the revised PDD Build Margin Emission Factor is made consistent throughout the PDD.</p> <p>The E-mail Id has been corrected.</p> <p>Conclusion : CAR 1 closed.</p>
<p><u>CAR 2</u></p> <p>The applicability condition of methodology as evaluated in Section B.2 of PDD does not represent and describe the true / correct detail of the project scenario. The evaluation and justification of the applicability of methodology AMS I.D version16 is not demonstrated correctly.</p>	B.1.2	Justification of the applicability of methodology AMS I.D Version 16 is now demonstrated correctly.	<p>PDD version 2 has been revised to demonstrate the applicability of the applied version 16 of methodology AMS I.D in a transparent way.</p> <p>Conclusion : CAR 2 closed</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<u>CAR 3</u> The grid emission factor represented in section B.4 of PDD (0.923 tCO ₂ /MWh) and derived in section B.6.1 is Not conservative, considering rounding off to 3 decimal place.	B.2.2	Grid emission factor represented in PDD is revised and conservative value (0.9225 tCO ₂ /MWh) without rounding off is used for all calculations.	Conservative value of grid emission factor considering three decimal places has been applied and followed in revised PDD version 2. Conclusion : CAR 3 closed
<u>CAR 4</u> Section B.7.1 indicates the measurement of one parameter net export of electricity to the grid. But it was observed during site visit that net electricity supplied to the grid is not measured but calculated from <ul style="list-style-type: none"> • A calculated value of gross electricity supplied by WTG (export) • A calculated value of gross import by the project activity (Import).. Also the procedure for calculating (apportioning) the gross import & gross export has not been described in PDD.	D.1.3	Parameters like EGexport and EGimport are now included in revised PDD. Procedure for calculating the gross import and gross export is described in PDD.	The version 2 of PDD describes the procedure of calculating the net electricity supplied to the grid (based on measured values of gross export and gross import.) which is now in line with the updated version of the applied methodology AMS I.D version 16. Conclusion : CAR 4 closed
<u>CAR 5</u> As evident from section B.7.2 of PDD The responsibility of calibration lies with SUZLON but The periodicity and other detail for calibration of monitoring equipment has not been mentioned” accordingly it is not evident whether the calibration practices of measuring & monitoring equipment are in line with the guidelines of UNFCCC	D5.5	Responsibility of calibration lies with State Electricity Board. This is done in presence of representative of Suzlon. Frequency of calibration is annual and the same is mentioned in Section B.7.1 and Section B.7.2 of the PDD. This is in line with EB 52 Annex 60.	The revised PDD Version 2 has indicated that the responsibility of calibration is with state electricity board and done in presence of Suzlon representative. The frequency of calibration is 1 year which fulfills the requirement of

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
			UNFCCC guidelines and requirement. Conclusion : CAR 5 closed
<p><u>CL 1</u> Please clarify :-</p> <p>The PDD gives the location detail of the project activity (in section A.4 of PDD) as village Bastava Mataji, Taluka Dharampur, But the land documents indicates the villages as Kui Inda (1.21 hectare) and Bastava Mataji (3.63 hectare) And Taluka as Shergarh. The schematic representation indicates land at different location whereas the site visit confirmed that the project activity is on one continuous piece of land.</p>	A.2.1	<p>The location details of the project activity in section A.4 of the PDD is revised as per the land document. RKB 83 + RKB 88 + RKB 89 belongs to same place and are located at Bastwa Mataji, Taluka Shergarh. RKB NL 06 belongs to Kui Inda, taluka Shergarh and the same is mentioned in PDD. Though the project activity is on one continuous piece of land but the official location of the land as per the revenue department for RKB NL06 falls under Kui Inda.</p>	<p>The location of different WTG has been explained in detail in revised PDD version 2, with respect the land document and has been verified to be correct.</p> <p>Conclusion : CL1 Closed.</p>
<p><u>CL 2</u></p> <p>The following requires clarification:</p> <p>A) It is Not evident if attachment A to Appendix B or the additionality tool has been used to establish and demonstrate additionality of the project.</p> <p>B). O & M CHARGES:</p>	B.2.1	<p>a) The additionality of this proposed wind power project is in accordance with Attachment A to Appendix B. As per good accounting procedure benchmark analysis has been done and Additionality Tool (Version 6) has been referred.</p>	<p>A. Attachment A to Appendix B has been used to demonstrate additionality which is in line with the requirement of small scale project activity.</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p>As per RERC guidelines, O & M charges are prescribed @ 1.50 % and this includes all other expenses (manpower, consumables, spares, turbine and other electrical system maintenance, road maintenance, insurance, other statutory duties, working capital and interest liability). In the IRR workings, this has been assumed Rs. INR 8.00 lakhs which works out to 1.78 %.</p> <p>C). INSURANCE COST:</p> <p>As per RERC guidelines (as stated above), the 1.50 % is inclusive of insurance charges, whereas even after applying a rate of 0.15 % a sum of Rs. 0.15 lakh has been added as insurance charges.</p> <p>D). DEBT: EQUITY RATIO:</p> <p>The cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years. – EB guidance 51 para no. 11</p> <p>E). It is observed that, following years are 1.25% deducted. Kindly clarify.</p>		<p>b) O & M CHARGES</p> <p>O & M charges of Rs. 16 lacs /WTG are considered on the basis of offer letter given by the supplier. Even the actual O & M cost is Rs. 15 lacs / WTG. Further O & M cost is subjected to sensitivity in the financials.</p> <p>c) INSURANCE COST</p> <p>We would like to submit that the above O & M cost does not include the Insurance cost, as the Insurance agency is different than O & M provider. Insurance cost is considered on the basis of rate prescribed by Tariff Advisory Committee (TAC Order) i.e. 0.15% of actual cost.</p> <p>d) DEBT: EQUITY RATIO</p> <p>PP does not have any other loan at the time of decision making, hence Investment analysis has been carried out on the basis of offer letter submitted by the supplier i.e. 70: 30. AS debt equity ratio is liable to change based on</p>	<p>B. the applied O & M costs have been verified and found acceptable</p> <p>C. The insurance cost considered is acceptable and is verified from the Tariff advisory committee order.</p> <p>D.The PP has applied debt:equity ratio of 70:30, which is as per CERC guidelines and is the most commonly used ratio on wind sector in India which is appropriate. Further based on the loan sanction letters the sensitivity for the actual debt equity ratio has been</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p>6th year 10th year 14th year and 18th year</p> <p>Totally 5 % reduced from 6th year onwards.</p> <p>F). URLs / OTHER AUTHENTIC EVIDENCES:</p> <p>Pl. furnish the relevant authentic URLs / evidences for the following assumed data:</p> <p>Rs. 4.28/unit selling price of electricity 5.00 % of Depreciation rate (Companies Act) 80% of Depreciation rate (Income tax Act) MAT – 17% IT – 33.99% Interest rate – 12 % Derated – 1.25% (6,10,14, & 18th years) Losses (Machine and Grid Unavailability) – 5%</p>		<p>actual loan sanction, accordingly debt equity sensitivity is added to PDD.</p> <p>e) Deration: Please refer para 67 of page 20 of Rajasthan Electricity Regulatory Commission order September 2006, which says about 1.25% deration in 6th, 10th , 14th and 18th year. i.e. total 5%.</p> <p>f) URLs / OTHER AUTHENTIC EVIDENCES:</p> <p>Rs. 4.28/Unit: RERC order July 2009. http://www.erc.gov.in/Tenders_for_Works.pdf 5% Depreciation Rate: http://www.indiankanoon.org/doc/1422372/ This has been charged in straight line method as per 205(2)(b) of Companies Act 1956 for the life of the Project i.e. 20 years. Accordingly Depreciation rate is equal to 5% 80% depreciation is charge as per Income Tax Act. (Reference document</p>	<p>considered which is conservative.</p> <p>E.The deration applied is as per RERC order and is appropriate</p> <p>F. The evidences found are appropriate as verified from the evidences provided. The sources for tariff rate, Depreciation rate, Interest rate, tax rate and deration have been verified and found correct.</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p>G). TERM LOAN – RATE OF INTEREST:</p> <p>Interest should be calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years. – EB guidance 51 para no. 11</p>		<p>submitted separately)</p> <p>MAT: as per section 115 jb of Income Tax Act. (Reference document submitted separately)</p> <p>Interest Rate 12%: on the basis of offer letter.</p> <p>Deration:</p> <p>http://www.erc.gov.in/Order/Final%20order_NES_Chairman.pdf</p> <p>Please refer para 67 of page 20 of Rajasthan Electricity Regulatory Commission order September 2006, which says about 1.25% deration in 6th, 10th , 14th and 18th year. i.e. total 5%.</p> <p>Losses of 7% are considered on the basis of proposal from Suzlon. The loss includes wind farm losses, Machine unavailability and grid unavailability. A conservative value as of 4% has been applied based on RERC order.</p> <p>g) TERM LOAN – RATE OF INTEREST:</p> <p>At the time of decision making PP had not acquired any loan from any bank or financial institution; hence PP had considered the Debt Equity ratio and rate of Interest on the basis of offer submitted by Supplier. Now the loan interest is as per loan sanction letter in</p>	<p>G.The rate of interest has been sourced from the actual loan sanction letter which is applicable and correct. Also in line with the latest guidelines on investment analysis the Debt:equity is taken based on the standard ratio observed in the power sector. Also the debt equity was subjected to sensitivity to establish the project to be still</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p>H). TAX CALCULATION</p> <p>It is observed that MAT @ 17% has been applied. The rate was not in vogue at the time of investment decision.</p> <p>I) It is observed that, Administrative cost have been taken Rs. 10.00 lacs p.a. Kindly provide the evidence</p> <p>J) The project chronology with reference to the evidences - offer from Suzlon, management decision, the modification in project configuration etc is not evident from section B.5 of PDD.</p>		<p>line with EB guidance.</p> <p>The Debt: equity ratio has been taken as per the guidelines commonly observed in the wind power sector in india.</p> <p>Debt equity ratio is also subjected to sensitivity analysis.</p> <p>Please also refer the financial submitted on the basis of actual, IRR of the project does not crosses the benchmark in that case also.</p> <p>h) TAX CALCULATION</p> <p>Company took decision in financial year 2008-09 and the MAT rate for the period was 15% + Surcharge 1.5% (i.e. 10% of MAT) Education cess 0.33 % total (i.e. 2% of MAT and Surcharge) + Secondary and Higher education cess 0.165% (i.e. 1% of MAT and Surcharge) = 16.995, rounded to 17%.</p> <p>i) CA certificate for Administrative cost is attached for reference.</p> <p>j) Minutes of Board meeting for</p>	<p>additional.</p> <p>H.The MAT rate applied is justified based on the reply provided.</p> <p>I)The evidence provided for the administrative costs is verified and found appropriate to the cost assumed.</p> <p>J)The project chronology is revised to</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p>K) At the time of investment decision for the project, the parameter Debt/ Equity ratio remains a variable which has considerable impact on profitability. Please justify why sensitivity need not be carried on Debt/equity ratio.</p> <p>L)The excel sheet for financial calculation presumes a cost (purchase) for the land, whereas other supporting documents indicates it as a leased land.</p> <p>M) The Assumptions made to demonstrate and establish additionality is not clear / evident in section B.5 of PDD.The offer letter from suzlon dated 15th July 2009 and the subsequent board board resolution on 25th July mention the project capacity as 7.5 MW (5 WTGs) while another offer letter dated 31st July 2009 mentions the cost /WTG and the subsequent board resolution mentions the project capacity for 6 MW (4 WTGs). Final amended purchase order is for 6 WTGs dated 16th August 2009.</p> <p>N) As the LoA, PCN submitted to DNA indicates 6 MW capacity, clarify on the appropriateness of</p> <ul style="list-style-type: none"> the earlier board resolution as evidence for serious CDM consideration of the implemented 		<p>change in capacity from 7.5 MW to 6 MW is now provided and same is included in section B.5 of revised PDD</p> <p>k) Sensitivity on Debt Equity ratio is added now.</p> <p>l) The cost of land includes only cost of acquiring the sublease right from the WTG supplier. The sublease charges are included in the admin cost.</p> <p>m) Assumption made to demonstrate additionality is demonstrated in PDD now.</p> <p>n) As discussed in the PDD, PP has decided to go for 5 WTGs and purchase order was placed for 5 WTGs. Due to land problem PP has to revise their decision for 4 WTGs only. Hence, PP has amended the PO's to 4 WTGs instead of 5 WTGs.</p>	<p>reflect the relevant events which is found acceptable.</p> <p>K) The debt Equity ratio has been subjected to sensitivity which is acceptable</p> <p>L)The charges for the land have been accounted under administrative costs.</p> <p>M) The assumptions to demonstrate additionality has now been explained with appropriate references.</p> <p>N)The explanation provided by the PP is justified and on verification of the evidence provided the start date of 12/08/2009 has been taken based on the actual implemented project capacity and serious financial commitment by the PP.</p> <p>Conclusion :CL 2 closed</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
<p>project activity</p> <ul style="list-style-type: none"> the earlier purchase order as evidence of start date indicating serious commitment of the investor to the implemented project activity 		<p>As the LoA, PCN submitted to DNA and other documents indicates 6 MW capacities. In this scenario appropriateness of the following events are</p> <p>Earlier board resolution: PP has decided to go for 5 WTGs and this decision was not changed on their own and even they have not cancelled the decision but they have to reduce the capacity from 5 WTGs to 4 WTGs. This can be referred from the amended PO dated 12/08/2009. Hence earlier decision was a major step towards implementation of the project activity.</p> <p>Earlier purchase order: Though PO for 5 WTGs were placed but later POs were amended for 4 WTGs and only 4 WTGs are reflected in all the documents, start date under section C.1.1 is revised to 12/08/2009. This date is considered as start date because POs for actually implemented WTGs were placed on these dates.</p>	
<p>CL 3</p> <p>Please clarify : The local stakeholder consultation process was conducted in village Ratan Ka Bas whereas the project site is in village Bastwa Mataji</p>	<p>G.1.4</p>	<p>Though the official location for the project activity falls under Bastwa Mataji, Nearest village from the site is Ratan Ka Bas (RKB). Hence, the site is known as RKB and numbers to the</p>	<p>As the local stakeholders consultation process was conducted in the nearest habitation, Ratan Ka Bas, the location of conducting the local stakeholders consultation is justified.</p>

SIRIM QAS INTERNATIONAL SDN BHD

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
		WEGs are given as RKB (Number). Being nearest village Ratan Ka Bas was selected for stakeholder consultation process.	Conclusion : CL3 Closed.

APPENDIX B
AUDITOR'S CERTIFICATE



Sijil Certificate

This is to certify that

DR. G. VISHNU

has been qualified as

**LEAD AUDITOR
FOR
CDM VALIDATION AND VERIFICATION SCHEME**

in accordance with the relevant provisions of SIRIM QAS International's CDM procedure

Sectoral Scopes No. : 1 – Energy industries (renewable/non-renewable sources)

TA 1.2 – Energy generation from renewable energy sources.

Parama Iswara Subramaniam
Chairman
Auditor Evaluation Panel
Management System Certification Department
SIRIM QAS International Sdn. Bhd.

Qualification Date : **9 November 2011**



Sijil Certificate

This is to certify that

RAVI SHANKAR

has been qualified as

**LEAD AUDITOR
FOR**

CDM VALIDATION AND VERIFICATION SCHEME

in accordance with the relevant provisions of SIRIM QAS International's CDM procedure

Sectoral Scopes No.

1 – Energy industries (renewable/non-renewable sources)

Parama Iswara Subramaniam

Chairman

Auditor Evaluation Panel

Management System Certification Department

SIRIM QAS International Sdn. Bhd.

Initial Qualification Date : **21 October 2009**