



VALIDATION REPORT

EÓLICO SAN ANTONIO EL SITIO, S.A.

SAN ANTONIO EL SITIO WIND POWER PROJECT

Report No: 8000408062 – 12/227

Date: 2012-08-06

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Project Participant(s):	Non-Annex 1 country:	Annex 1 country:		
	Guatemala	N/A		
	PP from Non-Annex 1 country:	PP from Annex 1 country:		
	Eólico San Antonio El Sitio, S.A.	N/A		
Applied methodology/ies:	Title:	No.:	Scope / TA:	
	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	ACM0002 ver. 12.3	1 / 1.2	
Validation team / Technical Review and Final Approval	Validation Team:	Technical review:	Final approval:	
	Raúl González Mitre	Emilio Martin Alexandra Nebel	Alexandra Nebel	
Expected Emission reductions: [t CO₂e]	Expected emission reductions over the first crediting period:	(Expected) starting date of the crediting period:		
	829,020	2013-11-01		
Confidential content:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
Key dates of validation:	Publication of PDD:	Draft Report issued:	On-site (from):	On-site (to):
	2012-05-03	2012-06-07	2012-06-04	2012-06-07
Summary of Validation Opinion:	<p>In detail the conclusions can be summarised as follows:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The project is in line with all relevant host country criteria (Guatemala) and all relevant UNFCCC requirements for CDM. Project activity approval have been obtained from DNA of Guatemala vide the Letter of Approval (HCA) dated 2012/07/16.. <input checked="" type="checkbox"/> The project additionality is sufficiently justified in the PDD. <input checked="" type="checkbox"/> The monitoring plan is transparent and adequate. <input checked="" type="checkbox"/> The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 829,020 t CO₂e are most likely to be achieved within the (1st renewable) crediting period. <input checked="" type="checkbox"/> The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation. 			
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Abbreviations

AMM	Wholesale Market Administrator – “ <i>Administrador del Mercado Mayorista</i> ”
BAU	Business as usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CNEE	Electrical Energy National Commission
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
DIA	Environmental Impact Declaration
DNA	Designated National Authority
DVR	Draft Validation Report
EB	CDM Executive Board
EIA	Environmental Impact Assessment
Ener-G	Ener-G is a company property of Centrans which is one of the owners of the project activity.
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GSCP	Global Stakeholders Consultation
IPCC	Intergovernmental Panel on Climate Change
NIS	National Interconnected System
LoA	Letter of Approval
PDD	Project Design Document
PP	Project Participant
QC/QA	Quality control/Quality assurance
SCADA	Supervisory Control and Data Acquisition – “ <i>Supervisión, Control y Adquisición de Datos</i> ”
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
WGS	World Geodetic System

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1 OBJECTIVE / SCOPE

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

- the requirements of Article 12 of the Kyoto Protocol;
- the CDM modalities and procedures as agreed in the Marrakech Accords under decision 3/CMP.1
- the annex to the decision;
- subsequent decisions made by COP/MOP & CDM Executive Board and
- other relevant rules, including the host country legislation and sustainability 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 seen as necessary to provide assurance to stakeholders on the quality of the project and its intended generation of certified emission reductions (CERs).

The validation scope is given as a thorough independent and objective assessment of the project design including especially: the correct application of the methodology, the project's baseline study, additionality justification, local stakeholder commenting process, environmental impacts and monitoring plan, which are included in the PDD and other relevant supporting documents, to ensure that the proposed CDM project activity meets all relevant and applicable CDM criteria.

The information included in the PDD and the supporting documents were reviewed against the requirements as set out by the UNFCCC. The validation team has, based on the requirements in the Validation and Verification Standard^{VVS}, carried out a full assessment of all evidences to assess the compliance of the project with the key areas as outlined in section V.II. of the VVS (version 02.0, EB 65).

The validation is based on the information made available to TÜV NORD JI/CDM CP and on the contract conditions.

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

2 GHG PROJECT DESCRIPTION

2.1 Project Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: Project Characteristics

Item	Data		
Project title	San Antonio El Sitio Wind Power Project		
Project size	<input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale		
Project Scope (according to UNFCCC sectoral scope numbers for CDM)	<input checked="" type="checkbox"/>	1	Energy Industries (renewable- /non-renewable sources)
	<input type="checkbox"/>	2	Energy distribution
	<input type="checkbox"/>	3	Energy demand
	<input type="checkbox"/>	4	Manufacturing industries
	<input type="checkbox"/>	5	Chemical industry
	<input type="checkbox"/>	6	Construction
	<input type="checkbox"/>	7	Transport
	<input type="checkbox"/>	8	Mining/Mineral production
	<input type="checkbox"/>	9	Metal production
	<input type="checkbox"/>	10	Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/>	11	Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/>	12	Solvents use
	<input type="checkbox"/>	13	Waste handling and disposal
	<input type="checkbox"/>	14	Afforestation and Reforestation
	<input type="checkbox"/>	15	Agriculture
Applied Methodology	ACM0002 ver. 12.3		
Technical Area(s)	1.2 Renewable Energies		
Crediting period	<input type="checkbox"/> Renewable Crediting Period (7 y) <input checked="" type="checkbox"/> Fixed Crediting Period (10 y)		
Start of crediting period	2013-11-01		

2.2 Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity (Table 2-2).

Table 2-2: Project Parties and project participants

Characteristic	Party	Project Participant
Non-Annex 1 Country	Guatemala	Eólico San Antonio El Sitio, S.A.

2.3 Project Location

The details of the project location are given in table 2-3:

Table 2-3: Project Location

No.		Project Location	
Host Country		Guatemala	
Region:		Guatemala	
Project location address:		Los Llanos Village, Municipality of Villa Canales	
Project Coordinates			
WTG ID	Eastings UTM WGS84		Northing UTM WGS84
T1	764116		1587112
T2	762947		1588785
T3	763263		1588900
T4	763571		1589032
T5	762738		1589230
T6	763117		1588222
T7	763441		1588381
T8	763732		1588546
T9	764031		1588755
T10	765140		1587812
T11	764014		1587943
T12	763682		1587401
T13	764666		1587573
T14	764198		1587530
T15	762983		1589550
T16	763735		1587804

2.4 Technical Project Description

The technical key data are provided in table 2-4 below

Table 2-4: Technical data of the project activity

Parameter	Unit	Value
Number of Turbines	-	16
Wind turbine		Vestas V112
Rated Power of Turbines	MW	3.0
Frequency	Hz	50/60
Diameter of Blades	m	112
Hub height	m	84
Design lifetime	years	20

3 METHODOLOGY AND VALIDATION SEQUENCE

3.1 Validation Steps

The validation of the project consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the project design document (PDD)
- Desk review of the PDD and supporting documents
- Validation planning
- On-Site assessment
- Background investigation and follow-up interviews with personnel of the project developer and its contractors
- Draft validation reporting
- Resolution of corrective actions (if any)
- Final validation reporting
- Technical review
- Final approval of the validation

3.2 Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the validation can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

3.3 Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities, a validation team, consisting of one team leader and no additional team member, as well as the Technical Review personnel were appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 3-2 below.

Table 3-2: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Raul Gonzalez Mitre	BRTÜV	TL	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Martin Emilio	TÜV NORD, Germany	TR ^{B)}	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Alexandra Nebel	TÜV NORD, Germany	TR/ FA _{B)}	SA	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

⁴⁾ As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

⁵⁾ In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical Experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

In order to qualify further personnel the project team was accompanied by observers and/or trainees as indicated in the table above. They are usually not considered as team members.

Statements of competence for the above mentioned team members are enclosed in annex 7 of this report.

3.4 Consideration of Public Stakeholder Comments

Acc. to the modalities and procedures the draft PDD, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the validation activity commenced. Stakeholders have been invited to comment on the PDD within the 30 days public commenting period.

In case comments are received, they are taken into account during the validation process. The comments and the discussion of the same are documented in annex 6 of this report.

3.5 Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements each CDM project has to meet as well as project specific issues as applicable. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM project is expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol is described in Figure 1.

Validation Protocol Table A-1: Requirement checklist				
Checklist Item	Validation Team Comment	Reference	Draft Conclusion	Final Conclusion
<i>The checklist items in Table A-1 are linked to the various requirements the project should meet. The checklist is organised in various sections. Each section is then further subdivided as per the requirements of the topic and the individual project activity.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.</i>	<i>Gives reference to the information source on which the assessment is based on</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.</i>	<i>In case a corrective action or a clarification the final assessment at the final validation stage is given.</i>

Figure 1: Validation protocol table

The completed validation protocol is enclosed in Annex 1 to this report.

3.6 Review of Documents

The published PDD and supporting background documents related to the project design and baseline were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

3.7 Site Visit and Follow-up Interviews

The validation team has carried out a site visit in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for CDM.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 3-3.

Table 3-3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project proponent representatives Project consultant	<ul style="list-style-type: none"> - Chronological description of the project activity with documents of key steps of the implementation. - Current status of plant design - Technical details of the project realization, project feasibility, designing, operational life time, monitoring of the project - Host Government Approval - Approval procedures and status - Monitoring and measurement equipment and system. - Financial aspects - Crediting period - Project activity starting date - CER allocation / ownership - Baseline study assumptions - Additionality - Sustainable development issues - Monitoring - Analysis of local stakeholder consultation - Roles & responsibilities of the project participants w.r.t. project management, monitoring and reporting - National Legislation - Editorial issues of the PDD

A comprehensive list of all interviewed persons is part of section 7 'References'.

3.8 Project comparison

The validation team has compared the proposed CDM project activity with similar projects or technology that have similar or comparable characteristics and with similar projects in the host country in order to achieve additional information esp. regarding:

- Project technology
- Additionality issues
- Reasons for reviews, requests for reviews and rejections within the CDM registration process.

3.9 Resolution of Clarification and Corrective Action Requests

3.9.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,
- the requirements deemed relevant for validation of the project with certain characteristics have not been met or
- there is a risk that the project would not be registered by the UNFCCC or that emission reductions would not be able to be verified and certified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to project implementation should be reviewed during the first verification.

3.9.2 Draft Validation

After reviewing all relevant documents and taken all other relevant information into account, the validation team issues all findings in the course of a draft validation report and hands this report over to the project proponent in order to respond on the issues raised and to revise the project documentation accordingly.

3.9.3 Final Validation

The final validation starts after issuance of the proposed corrective action (CA) of the CARs, CLs and FARs by the project proponent. The project proponent has to reply on those and the requests are “closed out” by the validation team in case the response is assessed as sufficient. In case of raised FARs the project proponent has to respond on this, identifying the necessary actions to ensure that the topics raised

in this finding are likely to be resolved at the latest during the first verification. The validation team has to assess whether the proposed action is adequate or not.

In case the findings from CARs and CLs cannot be resolved by the project proponent or the proposed action related to the FARs raised cannot be assessed as adequate, no positive validation opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in chapter 4.

3.10 Technical review

Before submission of the final validation report a technical review of the whole validation procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.11 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the complete validation will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the request for registration can be started (in case of a positive validation opinion).

4 VALIDATION FINDINGS

In the following table the findings from the desk review of the published PDD, visits, interviews and supporting documents are summarised:

Table 4-1: Summary of CARs, CLs and FARs issued

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
Description of project activity (A): <ul style="list-style-type: none"> - Project specification - Technical project description - Project Participants Technologies and/or measures 	0	0	0
Application of selected approved baseline and monitoring methodology (B) <ul style="list-style-type: none"> - Application of the Methodology - Project Boundary - Baseline identification - Calculation of GHG emission reductions <ul style="list-style-type: none"> Project emissions Baseline emissions Leakage - Additionality determination - Monitoring Methodology - Monitoring Plan - Project management planning 	1	3	0
Duration and Crediting Period (C)	0	0	0
Environmental impacts (D)	0	0	0
Local Stakeholder Consultation (E)	0	0	0
Approval, Authorization and other aspects (F): <ul style="list-style-type: none"> - Letter of Approval - Contribution to sustainable development - MoC - PDD editorial aspects 	2	0	0
SUM	3	3	0

¹⁾ The letters in brackets refer to the validation protocol

The following tables include all raised CARs, CLs and FARs. For an in depth evaluation of all validation items it should be referred to the validation protocols (see Annex 1).

The findings of validation process are summarized in the tables below.

Finding	CAR B1										
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR								
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	PDD Version 1 The following issues have been identified for the grid emission factor calculation: <ol style="list-style-type: none">1. Default value of the emission factor of fuel oil, diesel and coal used to calculate the OM were used instead of the the lower limit of the uncertainty at a 95% confidence interval.2. Date of commissioning of the following plants is incorrect: Trinidad (observed 2008). <i>Associated checklist question(s): B.5.7.3</i>										
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The following actions were done: <ol style="list-style-type: none">1. Values of the emission factor were changed to the lower limit of uncertainty at a 95% confidence interval:<table><tr><th>Fuel</th><th>EFi (tCO2/GJ)</th></tr><tr><td>Fuel Oil</td><td>0.0755</td></tr><tr><td>Diesel</td><td>0.0726</td></tr><tr><td>Coal</td><td>0.0873</td></tr></table>2. Date of commissioning for Trinidad was changed from 2009 to 2008			Fuel	EFi (tCO2/GJ)	Fuel Oil	0.0755	Diesel	0.0726	Coal	0.0873
Fuel	EFi (tCO2/GJ)										
Fuel Oil	0.0755										
Diesel	0.0726										
Coal	0.0873										



Finding	CAR B1
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	PDD Version 2 <p>Corrections were done in the emission factor calculation spreadsheet.</p> <ol style="list-style-type: none"> 1. The lower limit of the uncertainty at a 95% confidence interval of the emission factor of fuel oil, diesel and coal was used to calculate the OM. 2. Furthermore date of commissioning of Trinidad (observed 2008) was corrected. <p>The validation team concludes that all equations were correctly applied according to the applied approved methodology. Conservative assumptions have been used when calculating the emission reductions. All data sources and assumptions are appropriate and parameters which remain fixed throughout the crediting period are correct. Calculations lead to a conservative estimation of emission reductions. The emission reductions are considered real, measurable and give long-term benefits related to the mitigation of climate change.</p> <p>CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Finding	CL B2
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	PDD Version 1 <p>Section B.6.2:</p> <ol style="list-style-type: none"> 1. Purpose of data is incorrect for EF_{CO2,i,y} 2. Default values specified in the applied tool were included. <p>Associated checklist question(s): B.5.7.4</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The following changes have been done to section B.6.2 of the PDD:</p> <ol style="list-style-type: none"> 1. Instead of: "Estimation of combined margin emission factor", it is now read: "Calculation of baseline emissions" 2. Table with Data/Parameter: nm,y was eliminated.



Finding	CL B2
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	PDD Version 2 <p>Section B.6.2 was corrected. Purpose of data is now correct and default values specified in the applied tool were eliminated. The validation team checked version 2 of the PDD. No discrepancies were identified between the PDD version 2 and the guidance for completing the PDD.</p> <p><u>CL is closed.</u></p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Finding	CL B3
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	PDD Version 1 <p>Section B.7.1: Standards to be applied, person/entity responsible for the measurements and calibration procedures are missing.</p> <p><i>Associated checklist question(s): B.5.8.3</i></p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Section B.7.1. of the PDD was revised and corrected accordingly.</p>



Finding	CL B3
<p>DOE Assessment #1</p> <p><i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>PDD Version 2</p> <p>Section B.7.1 was corrected. Standards to be applied, person/entity responsible for the measurements and calibration procedures are now included. The validation team has checked the Resolution num. 307-02 by AMM which is the regulation applicable in Guatemala regarding measurements methods and equipment. The entity responsible for the measurements is the PP. Regarding calibration it is stated in article 14.12 of Resolution num. 307-02 that periodic verification will be done by AMM on a yearly frequency. Nevertheless further correction is required:</p> <ol style="list-style-type: none"> 1. A.3: No reference for the P50 Net Capacity Factor has been cited. 2. B.5: Table 4: The first point CNEE Bid has date of conclusion 11/2012. As the date is in timely order after point 2 and 3. Please check for correctness. 3. B.6: Table 6: Headline indicates data from 2006-2010. Table only shows data from 2008-2010. 4. Page 17: Format error regarding automatic source. 5. B.7.1: Parameter table: Monitoring frequency has not been filled out. 6. Clarification is required whether the CNEE Bid and PPA signature does not lead to any financial commitment. <p><u>CL remains open.</u></p>
<p>Corrective Action #2</p> <p><i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<ol style="list-style-type: none"> 1. B.5: Table 4 was corrected accordingly. 2. B.6: Table 6 was corrected accordingly. 3. Page 17: Format error was corrected accordingly. 4. B.7.1: Parameter table: Monitoring frequency has been filled out. 5. There was a mistake in Table 4 – Implementation Schedule, as the EPC signature will happen right after the CNEE Bid is awarded and PPA with the distributors is signed, which will make possible to commit financially in the EPC. Hence the project start date was changed to 01/12/2012 as per the EPC signature.



Finding	CL B3
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ol style="list-style-type: none"> 1. Section B.5, table 4 was corrected and now the CNEE Bid is in timely order. 2. Section B.6, table 6 was corrected and now indicates data from 2008-2010. 3. Format error regarding automatic source was corrected in page 17. 4. Section B.7.1: Monitoring frequency has been filled out and it is correct and according to applied methodology and tool. 5. Clarification was given. Section C.1.1 was corrected. Expected project starting date was also corrected. The first financial commitment expected to take place will be the signature of the EPC contract. Public Bid Num. PEG-2-2012 to contract capacity and electrical energy for supply purposes was checked and it not represents a financial commitment when the PP would be awarded. Concluding the CNEE Bid and PPA signature does not lead to any financial commitment and cannot be seen as a start date. <p><u>CL is closed.</u></p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Finding	CL B4
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>PDD Version 1</p> <p>Section B.5: Further clarification is required regarding the selected <i>applicable geographical area</i> as in the Guidance on additionally of first-of-its-kind (V.1) is stated: “<i>if the technology applied in the project is not <u>country specific</u>, then the applicable geographical area should be extended to other countries</i>”.</p> <p><i>Associated checklist question(s): B.5.5.4.</i></p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Section B.5 was revised accordingly. It was also explained that as the project will be installed and consumed internally in the Guatemala’s National Interconnected System (NIS), the technology applied in the project is country specific; hence what is stated above is not the case of the San Antonio El Sitio Wind Power project.</p>

Finding	CL B4
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	PDD Version 2 <p>Clarification was given and included in version 2 of the PDD.</p> <p>The energy generated by the project activity will be injected into the NIS and consumed inside in the host country in order to satisfy the Guatemala's energy demand. This is in accordance to the Public Bid Num. PEG-2-2012 to contract capacity and electrical energy for supply purposes. The PP is participating in such bid in order to be able to install the project activity. The Public Bid Num. PEG-2-2012 was checked. The validation team concludes that the applicable geographical area selected by the PP is the host country as the technology applied in the project is indeed country specific.</p> <p><u>CL is closed.</u></p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Finding	CAR F1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	PDD Version 1 <p>At the time of site visit, the LoA is missing.</p> <p><i>Associated checklist question(s): F.1.1.</i></p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The LoA was provided.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PP has provided the LoA of the host country referring to the precise project title in the PDD submitted for registration "San Antonio El Sitio Wind Power Project". As there is only one party involved, no other approvals are required for this project.</p> <p>The DNA listed in the UNFCCC web site is "Ministerio de Ambiente y Recursos Naturales" – Ministry of Environment and Natural Resources - which has issued the LoA of the project activity.</p> <p>The LoA confirms that Guatemala is a Party to the Kyoto Protocol, the participation of <i>Eolico San Antonio El Sitio, S.A.</i> is voluntary and the project activity contributes to the sustainable development in the country. The validation team has checked the LoA of the project activity. No discrepancies were identified.</p> <p><u>CAR is closed.</u></p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed



Finding	CAR F2		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	PDD Version 1 At the time of site visit, the MoC statement is missing. Associated checklist question(s): F.2.1.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	MoC was provided.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The PP has provided a completely fulfilled and valid Modalities of Communication (MoC) form, from a PP with whom the validation DOE has a contractual relationship. The MoC has been signed by a duly authorized person of the respective PP. The validation team has checked the MoC of the project activity. No discrepancies were identified. <u>CAR is closed.</u>		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Technology to be employed

In section A.3 of the PDD, description of the technology is provided. The description of the project in the PDD is complete and accurate.

The proposed project activity is the implementation of a wind farm with 48 MW of total power generation installed capacity with an expected annual output of 122.38 GWh. The project activity consists of 16 Vestas WTG of 3 MW each that will be mounted on 84 meters high steel tower. The wind farm will be interconnected to the National Interconnected System. The employed technology is environmentally safe and sound and state of the art, manufactured by leading provider Vestas.

5.1.2 Small Scale Projects

The project activity is not a small scale project but a large scale wind farm with 48 MW of installed capacity.

5.2 Project Baseline

5.2.1 Application of the Methodology

The project applies the baseline and monitoring methodology ACM0002 – “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” – version 12.3 and methodological tools: “Tool to calculate the emission factor for an electricity system” – version 2.2.1 and “Tool for demonstration and assessment of additionality” – version 06.0. They are all approved and valid and derive from the UNFCCC CDM website.

All applicability conditions are met and the project activity is in line with all requirements and stipulations mentioned in all sections of the applied methodologies.

No significant emissions are expected from project or from leakage

5.2.2 Project Boundary

The project boundaries (geographic and also related to GHG sources and gases) are correctly given in PDD, as described in section B.3 of the PDD. The methodology

does not allow for a choice of which GHG sources / sinks are included, and there are not any other sources which are impacted by the project which are not addressed by the applied methodology

5.2.3 Baseline Identification

The applied methodology establishes a one unique option for baseline scenario, in case the project activity is the installation of a new grid-connected renewable power plant/unit. This applied to the project activity

5.2.4 Algorithms and formulae used to determine emission reductions

Methodologies for calculating emission reductions are documented. The project intends to reduce carbon dioxide (CO₂) emissions by generating electricity from a wind farm project, which would be exported to the grid.

The calculation of GHG emission reductions was done in agreement with the applied methodology. As the project emissions are zero and leakage is not considered by the applied methodology, the emission reductions are calculated through calculation of the baseline emission. Baseline emission is calculated by multiplying the electricity baseline emission factor or grid emission factor and the net electricity exported to the grid.

The emission reductions calculation^{/XLS/} was reviewed by the validation team. All underlying data/values are transparent presented and assessed to be adequate. When a deviation has been identified, a corresponding CAR or CL was raised.

The grid emission factor has been calculated based on public available data. The value was determined ex-ante. The grid emission factor calculation is deemed to be adequate and transparent. The estimated emission reductions are plausible and conservative.

All values for the monitoring and non-monitoring parameters and estimated emission reductions are plausible and conservative.

5.3 Additionality Determination

5.3.1 Consideration of CDM in decision making (if project start before validation)

As the project start date has not yet occurred at the time of on site visit and the PDD is already published for Global Stakeholders Consultation such notification to the DNA and UNFCCC is not necessary. Nevertheless such notification has been submitted to UNFCCC on February 2012.

5.3.2 Alternatives

The baseline is determined according to the applicable methodology and does not require alternative baseline consideration

5.3.3 Investment analysis

No investment analysis is included in the PDD to demonstrate additionality.

5.3.4 Barrier analysis

The PP aim to demonstrate additionality through barriers due to prevailing practice, inter alia “first of its kind”.

The applicable geographical area selected by the PP is the host country – Guatemala - as the technology applied in the project is indeed country specific. Furthermore wind energy generation technology is different from any other technologies (geothermal, hydro, thermal, etc.) installed in the host country and able to deliver the same output (electricity). At the time of on site visit it was validated that no project has started commercial operation in the applicable geographical area.

Assessment of barriers is performed in table A-5 located at Annex 5

5.3.5 Common practice analysis

Not applicable to the project activity since additionality is justified through first-of-its-kind.

5.4 Monitoring Plan

The monitoring plan in the PDD covers all parameters which have to be monitored w.r.t. the project boundary, in line with monitoring methodology. The monitoring arrangements were assessed by the validation team and can be implemented and are feasible within the project design. For details see section B.6 of the Annex below and the resolution of the findings

5.5 Crediting Period

The starting date of the crediting period as mentioned in the PDD^{/PDD/} under Section C is 2013/11/01 or the date of registration of the project, whichever is later. The intended crediting period of the project is for a fixed period of ten years. The project life time (20 years duration) was verified by the validation team

5.6 Environmental Impacts

According to the Law of Protection and Improvement of the Environment the project activity requires to perform an Environmental Impact Assessment. Therefore an Environmental Impact Assessment was submitted by the PP on 2011/10/27. Approval was given by the authority on 2011/12/19. The Environmental Assessment License No. 522-2012/DIGARN was granted to the project activity by the Environmental Ministry on 2012/03/21.

5.7 Comments by Local Stakeholders

The stakeholder consultation was conducted in form of a meeting to submit comments or questions about the project activity. They were invited by invitation letters and announce in a national newspaper. Relevant stakeholders were invited to the public consultation meeting.

A summary of comments is also available in the PDD and it was verified by the validation team. No negative comments were received.

As a result from the stakeholder involvement process it can be concluded that no relevant concerns of the local stakeholders are existing

5.8 Participation

5.8.1 Project Participants

As there is only one party involved, no other approvals are required for this project. This is consistent in the PDD and in the LoA.

5.8.2 LOA

Guatemala, the host country, has ratified the Kyoto Protocol and as a non-Annex I party meets all relevant participation requirements.

The DNA of Guatemala assigned for CDM is is "*Ministerio de Ambiente y Recursos Naturales*" – Ministry of Environment and Natural Resources -, which has been checked directly from the UNFCCC website.

In accordance with the CDM M&P at the time of making the PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration the approval of the Parties involved is required.

Letter num. AND-037-2012 signed and stamped by the DNA of Guatemala on 2012/07/16 was provided by the PP and assessed by the validation team. The project name "*San Antonio El Sitio Wind Power Project*" stated in the LoA is the same as the project activity name stated in the PDD submitted for global stakeholder's consultation.

The DNA of Guatemala listed in the UNFCCC web site has issued the LoA of the project activity. The LoA confirms that Guatemala is a Party to the Kyoto Protocol, the participation of *Eolico San Antonio El Sitio, S.A.* is voluntary and the project activity contributes to the sustainable development in the country.

5.8.3 MoC

The PP has provided a completely fulfilled and valid Modalities of Communication (MoC) form, from a PP with whom the validation DOE has a contractual relationship. The MoC has been signed by a duly authorized person of the respective PP. The validation team has checked the MoC of the project activity. No discrepancies were identified

5.9 PDD editorial Aspects

The project activity complies with latest PDD template and latest version of the guideline for completing PDDs and when a deviation has been identified, a corresponding CAR or CL was raised

6 VALIDATION OPINION

Eólico San Antonio El Sitio, S.A. has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: “San Antonio El Sitio Wind Power Project” with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board

In the course of the pre-validation 3 Corrective Action Requests (CARs) and 3 Clarification Requests (CLs) were raised and successfully closed.

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarised as follows:

- The project is in line with all relevant host country criteria (Guatemala) and all relevant UNFCCC requirements for CDM. Further the project activity is in compliance with the requirements set up by the applied approved CDM methodology ACM0002 ver. 12.3 Project activity approval have been obtained from DNA of Guatemala vide the Letter of Approval (LoA) dated 2012/07/16.
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 829,020 t CO₂e are most likely to be achieved within the crediting period.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.

Mexico, 2012/08/06



Raul Gonzalez Mitre
TÜV NORD JI/CDM CP
Validation Team Leader

Hannover, 2012-08-06



Alexandra Nebel
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/BID/	Public Bid Num. PEG-2-2012 to contract capacity and electrical energy for supply purposes, April 2012.
/EF/	<ol style="list-style-type: none"> 1. Data of energy generation year 2008, 2009 & 2010 - “<i>Despacho de carga ejecutado del sistema Nacional Interconectado 2008, 2009 & 2010</i>” extracted directly from the AMM web site. 2. Hourly generation data from years 2008, 2009 & 2010 from the AMM web site 3. Installed capacity Report of the NIS (updated on January 2011) 4. Statistic Report 2008 published by the AMM.
/EIA/	<ul style="list-style-type: none"> • Environment Impact Assessment for the project “<i>Parque Eolico San Antonio El Sitio</i>” issued on 2011/10/19 by SIGA (external consultants). • Resolution No. 3662-2011/DIGARN/ECM/arg (approval of the EIA) issued by the Environmental Ministry on 2011/12/19. • Environmental Assessment License No. 522-2012/DIGARN issued on 2012/03/21 by the Environmental Ministry.
/LOA/	Letter of Approval No. AND-037-2012 from Guatemala of the project activity “ <i>San Antonio El Sitio Wind Power Project</i> ” dated on 2012/07/16.
/MOC/	Modalities of Communication – F-CDM-MOC, V02.1
/PDD/	<ul style="list-style-type: none"> • Project Design Document named “San Antonio El Sitio Wind Power Project”, Version 1 - 2012/04/24 • Project Design Document named “San Antonio El Sitio Wind Power Project”, Version 2 - 2012/06/06 • Project Design Document named “San Antonio El Sitio Wind Power Project”, Version 3 - 2012/06/15
/PLF/	Wind Power Plant Assessment Report San Antonio Guatemala – V112-3.0 MW – 84 m, 2012/01/23, Rev. 1 (page 18/22)
/Prior/	F-CDM-Prior consideration Form – Eolico San Antonio El Sitio Wind Power Project, Guatemala, dated 2012/02/06 and stamped by DNA on 2012/02/08.
/SHCP/	<p>Stakeholder consultation process evidences:</p> <p>Invitation:</p> <ul style="list-style-type: none"> • Invitation letter dated on 2012/04/13 and stamped as a proof of receipt.

Reference	Document
	<ul style="list-style-type: none"> • Invitation message published in a national newspaper “<i>Siglo XXI</i>”, dated 2012/04/14. <p>Questionnaires:</p> <ul style="list-style-type: none"> • Questionnaires. <p>Attendance Register:</p> <ul style="list-style-type: none"> • Attendance Lists, dated 2012/04/18. <p>Others:</p> <ul style="list-style-type: none"> • Meeting Minute. • Video and photos of the meeting. • Power Point Presentation.
/SINGLE/	Single-line diagram of the electric installation of the wind farm.
/TECH/	General specifications – V112-3.0 MW 50/60 Hz – Code: 0011-9181 V05, 2011/08/16.
/UTM/	Ortophotos and snapshot from Google Earth showing the central point of the wind farm and the specified WTG location.
/XLS/	Emission reduction calculation spread sheet

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM0002/	ACM0002 ver. 12.3: Consolidated baseline methodology for grid-connected electricity generation from renewable sources
/ARECA/	Comparative Analysis of the regulatory frame, incentives and price system for electricity generation in renewable energy plants in Central America, published by the Centro American Economic Integration Bank.
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/EXP/	Expansion Plan for the electricity sector in Guatemala by CNEE, January 2012.
/first/	Guidance on additionally of first-of-its-kind project activities version 01.0
/GCP/	UNFCCC: Guidelines for completing the Project Design Document Form , (v. 01.0)

Reference	Document
/GT/	UNFCCC: CDM Glossary of Terms
/IPCC/	<ul style="list-style-type: none"> • IPCC Good Practice Guidance & Uncertainty Management in National Greenhouse Gas Inventories, 2000 • Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual
/KP/	Kyoto Protocol (1997)
/LAW/	<ul style="list-style-type: none"> • General Law of Electricity (Government Agreement No. 93-96), 1996/11/21 and its regulation (Government Agreement No. 256-97), 1997/04/02. • Resolution num. 307-02 – commercial measurement system - by AMM, 2002/12/03. • Law of Protection and Improvement of the Environment (Government Agreement No. 68-86), 1986/11/28. • Assessment, Environmental Monitoring and Control Regulation (Government Agreement No. 431-2007), 2007/09/17. • Incentive Law for Development of Renewable Energy Projects (Government Agreement No. 52-2003), 2003/11/10.
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7))
/PDD-T/	Project Design Document Form (F-CDM_PDD) - Version 04.0
/TA/	Tool for the demonstration and assessment of additionality (Ver. 6.0.0).
/TEF/	Tool for calculating the emission factor of an electricity system – Version 2.2.1 EB 63, Annex 19.
/VVS/	Validation and Verification Standard (Version 02.0, EB 65, Annex 4)

Table 7-3: Websites used

Reference	Link	Organisation
/amm/	www.amm.org.gt	AMM
/cd4cdm/	www.cd4cdm.org	UNEP Riso Centre
/dna/	http://www.marn.gob.gt/	Ministry of Environment and Natural Resources - DNA of Guatemala
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications

Reference	Link	Organisation
/meso/	http://www.proyectomesoamerica.org/joomla/index.php?option=com_content&view=article&id=439&Itemid=229	Proyecto de Integración y Desarrollo Mesoamerica
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Jorge Eduardo Sinibaldi	General Manager – ENER-G
/IM01/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Iris Castillo Martinez	Assistant of General Manager – ENER-G
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Marlon Martin Guzman	Project Engineer – ENER-G
/IM02/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Noadia Raudales	Consultant – GeoIngenieria
/IM02/	T/E	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Sofia Castro	Consultant – GeoIngenieria
/IM03/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Gladis Fischer	Land Owner
/IM03/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Juan Jose Urruela	Land Owner
/IM03/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Luis Antonio Munoz	Land Administrator
/IM04/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Raul Castaneda	Coordinator - DNA of Guatemala
/IM05/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Luis Herrera	General Manager - AMM

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Validation Protocol
- A2:** Assessment of Applicability Criteria
- A3:** Assessment of Baseline Identification
- A4:** Assessment of Financial Parameters
- A5:** Assessment of Barrier analysis
- A6:** Outcome of the GSCP
- A7:** Statement of competence of involved Personnel

ANNEX 1: VALIDATION PROTOCOL

Table A-1: Requirements Checklist

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
A. General Description of Project Activity				
A.1. Technology to be employed <i>Validation of project technology focuses on the project engineering, choice of technology and competence/maintenance needs. The DOE should ensure that environmentally safe and sound technology and know-how is used.</i>				
<p>A.1.1. Does the PDD contain a clear, accurate and complete project description?</p> <p>(VVS, v. 2.0, §§ 64, 69)</p> <p><i>The PDD shall contain a clear description of the project activity which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation.</i></p> <p><i>Pl. consider esp. chapters A.1, A.3 (in case of LSC PDD) for assessment.</i></p> <p><i>§69 (a) Describe the process undertaken to validate the</i></p>	<p>/PDD/ /TECH/ /EIA/ /IM02/</p>	<p><i>Description:</i> Yes, a comprehensive project description is given in sections A.1 and A.3 of the PDD. The project activity consists in the installation of a 48 MW wind farm composed of 16 WTG of 3MW each.</p> <p>In PDD, section A.3, description of the technology is provided. The technology of the wind turbines is provided by the world leading supplier Vestas and the project design is environmentally safe and sound.</p> <p><i>Validator's action:</i> For the assessment the validation team has: a) reviewed the PDD in detail; b) reviewed the technical information^{/TECH/} of the project equipment which corresponds to description in the EIA and; c) carried out interviews with operational personnel and project</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>accuracy and completeness of the project description.</i> <i>§69 (b) Contain the DOE's opinion on the accuracy and completeness of the project description.</i>		consultants. <i>Conclusion:</i> The PDD contain a clear, accurate and complete project description		
A.1.2. Is this description in accordance with the real situation or (in case of greenfield projects) is it most likely that the project will be implemented acc to the project description?	/PDD/	<i>Description:</i> The project activity consists in a Greenfield wind farm. The PDD has been reviewed and it is confirmed that the project description is in accordance to the most likely implementation scenario. <i>Validator's action:</i> This could be verified through technical data review and interviews. <i>Conclusion:</i> The project complies with the requirements.	OK	OK
A.1.3. In case the project involves alteration of the existing installation or process, is a clear description available regarding the differences between the project and the pre-project situation? (VVS, v. 2.0, § 68) <i>Describe the steps taken to validate this issue.</i>	/PDD/	 <i>Not applicable, since the project does not involve alteration of the existing installation or process. It is a Greenfield project.</i>	OK	OK
A.2. Small scale project activity <i>It is assessed whether the project qualifies as small-scale CDM project activity</i>				
A.2.1. Does the project fall within the small scale project activity threshold and applies a large-scale approved methodology? In this case, are the modalities and procedures for large-scale		 <i>The project does not qualify as small-scale CDM project activity.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
project activities followed? (VVS, v. 2.0, § 151)				
In case of project activities applying a LSC-Methodology, go to B.1		<i>The project does not qualify as small-scale CDM project activity.</i>	N/A	N/A
A.2.2. Does the project qualify as a small scale CDM project activity as defined in decision 4 / CMP.1 annex II? (VVS, v. 2.0., §§ 150–152) <i>Please indicate whether the project activity meets the eligibility criteria for small scale-projects. Specially consider whether the project qualifies within the thresholds of the three possible types of small-scale project activities</i>		<i>The project does not qualify as small-scale CDM project activity.</i>	N/A	N/A
A.2.3. Does the project apply one of the approved small scale categories and any methodology and tool referred therein? (VVS, v. 2.0., § 152 (b)) <i>Check, if applicable the expiry dates of the applied methodology. Further, take into consideration the general guidance to the methodologies¹, which provide guidance on equipment capacity, equipment performance, sampling and other monitoring related issues.</i>		<i>The project does not qualify as small-scale CDM project activity.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
A.2.4. Is the small scale project activity not a debundled component of a larger project activity? (VVS, v. 2.0, §§ 154-157) <i>Describe the steps taken to assess whether the project activity is not a debundled component of a large scale activity, in accordance to the "Guidelines on assessment of debundling for SSC project activities"..</i>		<i>The project does not qualify as small-scale CDM project activity.</i>	N/A	N/A
B. Project Baseline, Additionality and Monitoring Plan				
B.1. Reference of the Methodology				
B.1.1. Does the PDD correctly quote an applicable version of the methodology? (VVS, v. 2.0, § 74)	/PDD/ /unfccc/	<input checked="" type="checkbox"/> The applied methodology is correctly quoted and is identical to the version available on the UNFCCC website. <input checked="" type="checkbox"/> The applied version of the baseline and monitoring methodology is applicable and valid at the time of submission for stakeholder consultation.	OK	OK
B.2. Applicability of the Methodology				
B.2.1. Does the project apply an approved and	/PDD/	<input checked="" type="checkbox"/> The applied methodology is correctly quoted and is identical to the version available on the UNFCCC Website.	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>applicable CDM methodology and a valid version thereof?</p> <p>(VVS, v. 2.0, §§ 70, 74, 76, 77)</p> <p><i>Describe the steps taken to validate this issue.</i></p> <p><i>Describe for <u>each</u> applicability criterion listed in the selected approved methodology the steps taken to assess its fulfilment</i></p>	/unfccc/	<p><input checked="" type="checkbox"/> The applied version of the baseline and monitoring methodology is valid at the time of submission for stakeholder consultation.</p> <p><input checked="" type="checkbox"/> All applicability criteria in the methodology, the applied tools or any other methodology component referred to therein are fulfilled (please make detailed assessment in Annex 2 of this protocol).</p>		
<p>B.2.2. In case one or more applicability criteria have not been met, has the validation team requested clarification to, revision of or deviation from the methodology in accordance with the latest guidelines?</p> <p>(VVS, v. 2.0., §§ 78-81)</p>	/PDD/ /ACM0002/	<p><i>Description:</i> Not applicable as project meets all applicability conditions of ACM0002.</p> <p>Please, refer to the detailed assessment in Annex 2 of this protocol</p> <p><i>Validator's action:</i> The PDD has been checked against ACM0002 version 12.3 requirements.</p> <p><i>Conclusion:</i> Not applicable.</p>	OK	OK
<p>B.3. Project Boundaries</p> <p><i>Project Boundaries are the limits and borders defining the GHG emission reduction project</i></p>				
<p>B.3.1. Are the project's spatial boundaries (geographical) clearly defined?</p> <p>(VVS, v. 2.0, §§ 72 (a), 82)</p> <p><i>Provide information on how the validation of the geographical boundary has been performed either based on</i></p>	/PDD/ /ACM0002/	<p><i>Description:</i> Section B.3 of the PDD includes a clear definition of the project's spatial boundaries. These boundaries are in accordance with the applicable methodology ACM0002, <i>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 activity is connected to.</i></p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>reviewed documented evidence or by describing what was observed/viewed during a site visit.</i>		<p><i>Validator's action:</i> The draft PDD and the applicable methodology have been reviewed.</p> <p><i>Conclusion:</i> The project fulfils the requirement; clear definition of the project's spatial boundaries has been included in the PDD.</p>		
<p>B.3.2. Are all sources and GHGs included in the project boundary as required in the applied methodology?</p> <p>(VVS, v. 2.0, §§ 82, 84)</p> <p><i>Provide information on how the validation of the GHGs and sources has been performed either based on reviewed documented evidence or by describing what was observed/viewed during a site visit.</i></p>	/PDD/ /ACM0002/	<p><i>Description:</i> Yes, all sources and GHGs included in the project boundary are included in the table in section B.3 of the PDD in line with ACM0002.</p> <p><i>Validator's action:</i> The PDD was reviewed against sources and gases defined in ACM0002.</p> <p><i>Conclusion:</i> The sources are in compliance with the applied methodology as well as with the real situation.</p>	OK	OK
<p>B.3.3. In case the methodology allows to choose whether a source and/or gas is to be included, is the choice sufficiently explained and justified?</p> <p>(VVS, v. 2.0, §§ 84, 87)</p> <p><i>Confirm if the Adequacy provided by the PPs is reasonable, based on assessment of supporting documented evidence provided by the PPs or by onsite observations.</i></p>	/PDD/ /ACM0002/	<p><i>Not applicable, since the methodology does not allow such choices.</i></p>	OK	OK
<p>B.3.4. Have emission sources been identified, which are expected to contribute more than 1% of the overall expected average annual emissions reductions and which are not</p>	/PDD/ /ACM0002/	<p><i>No other emission sources than those described in the methodology have been identified.</i></p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>addressed by the selected approved methodology?</p> <p>(VVS, v. 2.0, § 87)</p> <p><i>Describe the steps taken to validate this issue. If any emission sources that are expected to contribute more than 1% have been identified, the DOE shall request clarification of, revision to, or deviation from the methodology, as appropriate.</i></p>				
<p>B.4. Baseline Identification</p> <p><i>The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.</i></p>				
<p>B.4.1. Has the baseline scenario been determined according to the methodology?</p> <p>(VVS, v. 2.0, §§ 72 (b), 89, 87(e))</p> <p><i>Describe how it is validated that the identification of the most plausible baseline scenario is carried out in accordance with the applied methodology and applied methodological tools. Please refer to table A-2.</i></p>	<p>/PDD/ /ACM0 002/</p>	<p><input checked="" type="checkbox"/> The baseline is defined by the applying methodology and the PDD refers to it. If the answer is Yes, continue to B.4.5</p> <p><input type="checkbox"/> The baseline is not directly defined by the applying methodology.</p> <p>For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2.</p> <p><input type="checkbox"/> The determination has been carried out as per the procedure contained in the applied methodology.</p> <p><input type="checkbox"/> The following CARs / CLs have been identified with respect to the selection of the baseline scenario:</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
B.4.2. Is the list of alternatives complete? (VVS, v. 2.0, § 90) <i>Describe how it was validated that all alternatives are plausible and that any scenarios that are supplementary to those required by the methodology are realistic and credible in the context of the project activity and that no alternative scenarios have been excluded.</i> <i>Fill in all alternatives in table A-2.</i>	/PDD/ /ACM0 002/	<input type="checkbox"/> All plausible alternative scenarios listed in the approved methodology have been considered. In the course of document review and site visit, it has been validated that no other alternatives which supply comparable outputs and / or services are to be taken into consideration. Thus no plausible scenario has been excluded. <input type="checkbox"/> The following alternative scenarios/options have been omitted. Corresponding CAR(s)/CL(s) has /have been issued Not applicable as the baseline is defined by the applying methodology and the PDD refers to it.	N/A	N/A
B.4.3. Is the identified baseline scenario reasonable and has the baseline scenario been determined using conservative assumptions where possible, including relevant references and sources? (VVS, v. 2.0, § 91) <i>Describe whether the choice of the identified baseline scenario is reasonable by validating the <u>key assumptions, calculations and rationales</u> used in the PDD. Describe whether these are listed, relevant and <u>conservatively interpreted</u> in the PDD.</i>	/PDD/ /ACM0 002/	<input type="checkbox"/> The baseline scenario is reasonable and has been determined using conservative assumptions where possible. Please refer to comments in table A-2.. <input type="checkbox"/> The following CARs / CLs have been issued because assumptions used in the baseline determination have been assessed to be not conservative Not applicable as the baseline is defined by the applying methodology and the PDD refers to it.	N/A	N/A
B.4.4. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in	/PDD/ /ACM0 002/	<i>Not applicable, as the baseline is given by the methodology.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>the project sector.?</p> <p>(VVS, v. 2.0, § 93)</p> <p><i>Describe whether the PP has shown that all relevant policies and circumstances have been identified and correctly considered in the PDD. Two (2) types of national and/or sectoral policies have to be taken into account:</i></p> <p>(a) <i>National and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels, known as E+ policies. For this type of national and/or sectoral policies or regulations, only those that have been implemented before adoption of the Kyoto Protocol by the COP (decision 1/CP.3, 11 December 1997) shall be taken into account</i></p> <p>(b) <i>National and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programmes), known as E- policies. For this type of national and/or sectoral policies or regulations, those that have been implemented since the adoption by the COP of the CDM M&P (decision 17/CP.7, 11 November 2001) need not be taken into account in identifying a baseline scenario.</i></p>				
<p>B.4.5. What has been identified as the baseline scenario? Does the PDD contain a verifiable description of the identified baseline scenario, including a description of the</p>	<p>/PDD/ /ACM0 002/</p>	<p><i>Description: The defined baseline scenario is 'Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM)</i></p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity? (VVS, v. 2.0, § 88)		<i>calculations described in the “Tool to calculate the emission factor for an electricity system”.</i> <i>Validator’s action:</i> The applicable methodology has been checked and it has been confirmed that the baseline definition given by ACM002 was applied. <i>Conclusion:</i> The definition of ACM002 was applied.		
B.5. Additionality Determination <i>The assessment of additionality will be validated with focus on whether the project itself is not a likely baseline scenario.</i>				
B.5.1. Methodology				
B.5.1.1. Does the PDD describe how the project is additional and does the additionality justification follow the requirements of the applied methodology and/or methodological tools? (VVS, v. 2.0, §§ 72 (d), 101-102) <i>Describe how it is validated that additionality justification is carried out in accordance with the applied methodology and/or applied methodological tools. Further focus your assessment on the reliability and credibility of data, rationales and assumptions, justifications and documentations provided by the PP.</i>	/PDD/ /ACM002/ /TA/ /first/	<i>Description:</i> Yes, the sequence utilized by the PP to demonstrate the additionality of the project has followed the step-wise approach described in version 6.0 of the “Tool for the demonstration and assessment of additionality” ^{TA/} and Guidance on additionally of first-of-its-kind project activities version 01.0. The additionality is demonstrated by first-of-its-kind. <i>Justification of evidences:</i> The PDD was reviewed in detail and supporting evidences cross-checked. <i>Conclusion:</i> The PDD describes how the project is additional and additionality justification follows the requirements of the applied methodological tools and guidance.	OK	OK
B.5.2. Consideration of CDM before project				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
start				
<p>B.5.2.1. In case the project start date is on or after 2nd August 2008 has the PP informed the DNA and UNFCCC about the intention to seek CDM status?</p> <p>(VVS, v. 2.0, § 107, EB 62, Annex 13, § 5)</p> <p><i>Describe whether such a notification has been provided by the project participants within 180 days to the UNFCCC and host Party DNA and that further notifications, if necessary (two years from CDM Prior Notification letter without having published the PDD), have been sent to the UNFCCC. If NOT it shall be determined that the CDM was not seriously considered.</i></p> <p><i>Assess the project starting date in section C.1</i></p>	<p>/PDD/ /BID/ /IM01/ /IM02/ /IM03/ /IM04/ /IM05/</p>	<p><i>Description:</i> The project starting date has not been occurred yet. It is expected to be the day when the EPC contract would be signed with the technology supplier. This date is expected to be 2012/09/27.</p> <p><i>Validator's action:</i> Interviews were done during on site visit.</p> <p><i>Conclusion:</i> the project starting date has not been occurred yet. It was evidence during on site visit that no commitment to expenditures has occurred yet. The first financial commitment expected to take place on 2012/12/01 will be the signature of the EPC contract. Public Bid Num. PEG-2-2012 to contract capacity and electrical energy for supply purposes was checked and it does not represent a financial commitment when the PP would be awarded. Concluding the CNEE Bid and PPA signature does not lead to any financial commitment and cannot be seen as a start date.</p>	OK	OK
In case the project starting date has been correctly defined on or after 2 nd August 2008, go to B.5.2.4				
<p>B.5.2.2. In case the project start date is before commencing of validation and 2nd August 2008, was the incentive from the CDM seriously considered by the project participants and the benefits of CDM were considered a decisive factor in the decision to proceed with the project?</p> <p>(VVS, v. 2.0, § 108 (a))</p>		See comments at B.5.2.1 above.		

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p><i>Describe whether the evidences to support such considerations are adequately and transparently described in the PDD.</i></p> <p><i>Include an assessment on how was the CDM involved in the decision making process, as well as how and when the decision to proceed with the project activity was taken and whether the decision to proceed with the project was taken by a person which has the authority to do so.</i></p> <p><i>Include an assessment of the authenticity of the evidences.</i></p>				
<p>B.5.2.3. Does the documented evidence provided doubtlessly prove that continuous and real actions were taken in order to secure the CDM status?</p> <p>(VVS, v. 2.0, §§ 108;(b), 109, 110)</p> <p><i>Include an assessment on the gap between the documented evidences to secure the CDM status.</i></p> <p><i>When the gap is greater than two years and less than three, it has to be assessed whether continuing and real actions were taken to secure CDM status for the project activity.</i></p> <p><i>If the gap is greater than three years, it must be concluded that continuing and real actions were not taken to secure CDM status for the project activity).</i></p> <p><i>Describe the steps taken to validate that the real documented evidences are reliable and authentic.</i></p>		<p>See comments at B.5.2.1 above.</p>		

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>B.5.2.4. Does the proposed project activity comply with all applicable requirements related to the prior consideration of the CDM?</p> <p>(VVS, v. 2.0, § 112(c)) <i>Describe whether or not the project would have been undertaken without the incentive of the CDM.</i></p>	<p>/PDD/ /unfccc/ /Prior/</p>	<p><i>Description:</i> Yes, prior CDM consideration requirements are met by the project activity. As the PDD has been published for global stakeholder's consultation before the project starting date (which has not been occurred yet), a notification of prior consideration is not required. Nonetheless the PP submitted the F-CDM-Prior Consideration form to DNA and UNFCCC on 2012/02/08 and 2012/02/10 respectively.</p> <p><i>Validator's action:</i> Interviews were done during on site visit.</p> <p><i>Conclusion:</i> All applicable requirements related to the prior consideration of the CDM are fulfilled.</p>	OK	OK
<p>B.5.3. Identification of alternatives Step 1 (in case of SSC projects pl. skip steps 1 and 2 if appropriate; in cases where the baseline scenario is prescribed in the approved methodology, skip step 1, (VVS, v. 2.0, § 115))</p>				
<p>B.5.3.1. Does the list of alternatives contain the status-quo situation, the project not undertaken as a CDM project as well as all other viable alternatives for supplying the outputs or services that are to be supplied by the proposed CDM project activity? Do all identified alternatives comply with enforced legislations?</p> <p>(VVS, v. 2.0, §§ 114, 116) <i>Describe whether the list of alternatives is credible and complete. Describe how it is validated that the list of alternatives is complete, realistic and that the alternatives are credible and that all alternatives comply with the existing</i></p>		<p><i>Not applicable since the baseline is determined by default by the applied methodology.</i></p>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
and enforced legislation. <i>Describe the steps taken to validate this issue on the basis of your local and sectoral knowledge.</i>				
B.5.4. Investment analysis Step 2 <i>In case the investment analysis as per step 2 is chosen to justify the additionality Annex 4 "Assessment of Financial Parameters" has to be used to provide additional details of the the calculation parameters..</i>				
B.5.4.1. Does the PDD provide evidence that the project would not be the most economically or financially attractive alternative or economically / financially feasible without the revenues from the sale of CERs? (VVS, v. 2.0, § 117) <i>In cases where the project activity would produce no financial or economic benefits other than CDM-related income, describe how it has been validated that at least one of the alternatives identified is less costly than the proposed project activity.</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.2. Is a clear, viewable and unprotected Excel spreadsheet available for the investment calculation? (EB 62 Annex 5 , §8)	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>Describe the steps taken to validate this issue.</i>				
<p>B.5.4.3. Does the period chosen for the investment analysis reflect the technical lifetime of the project activity or in case a shorter period is chosen, is the fair value of the project activity's assets at the end of the investment analysis period (as a cash inflow) included?</p> <p>(EB 62 Annex 5 § 3) <i>Describe how the technical lifetime / period chosen for calculating financial parameter(s) is reviewed and which documents were utilised in the course of review. Describe furthermore the approach used to check the inclusion of a potential fair value.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.4.4. Is the fair value calculated in accordance with local accounting regulations (where available) or international best practice?</p> <p>(EB 62 Annex 5, § 4) <i>State the accounting regulations applied for calculating the fair value and describe why these are applicable under the project specific circumstances. Describe potential mismatches between regulations and the approach applied for calculating the fair value.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.5. Is the book value as well as the	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
expectation of the potential profit or loss included in the fair value calculation? (EB 62 Annex 5, § 4)				
B.5.4.6. Is an appropriate analysis method chosen for the project (simple cost analysis, investment comparison analysis or benchmark analysis)? (EB 65 Annex 21, EB 62, Annex 5, §19) <i>Describe why the selected analysis method is appropriate under consideration of potential revenues and costs, potential project alternatives and potential available benchmark values.</i> <i>Assess whether the alternative to the project activity is to supply the same or substitute products or services. In this case, an investment comparison analysis shall be used.</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.7. Were the input values used in the investment analysis valid and applicable at the time of the investment decision? (EB 62 Annex 5, § 6) <i>Describe the steps taken to validate this issue</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.8. Did implementation of the project ceased after its commencement and did implementation recommence after consideration of the CDM?	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>(EB 62 Annex 5, § 7)</p> <p><i>Describe the reasons for ceasing the project and explain why the incentive from CDM was necessary to recommence the implementation.</i></p> <p><i>Assess whether the investment analysis reflects the economic decision-making context at point of the decision to recommence the project, i.e. capital costs incurred prior to the recommencement of the project are to be limited to the potential reuse/resale of tangible assets, demonstrating the value through assessment done by chartered specialists.</i></p>				
<p>B.5.4.9. Are the input parameters based on values from Feasibility Study Reports that are approved by national authorities for proposed project activities?</p> <p>(VVS, v. 2.0, § 122)</p> <p><i>In case the basis for input values is a Feasibility Study Report (FSR) describe how it has been ensured that the period in time between the finalisation of the FSR and the investment decision is sufficiently short so that it is unlikely that input values would have materially changed. Further confirm the consistency of values in FSR and PDD.</i></p>	/PDD/	<p><i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i></p>	N/A	N/A
<p>In case a simple cost analysis has been done, go to B.5.5;</p>	/PDD/	<p><i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i></p>	N/A	N/A
<p>B.5.4.10. Has been a suitable financial indicator chosen by the project participants?</p> <p>(VVS, v. 2.0, § 120 (a))</p>	/PDD/	<p><i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i></p>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>Describe the steps taken to validate this issue.</i>				
B.5.4.11. Are depreciation and other non-cash related items only considered in the tax calculation and not as cash outflow? (EB 62 Annex 5, § 5)	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.12. Is the plant load factor (PLF) chosen in a conservative manner, taking into account that the PLF may be different in the framework of demonstrating additionality and calculating the ex-ante ER? (EB 48, Annex 11)	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.13. Does the PDD and related spreadsheets contain a sensitivity analysis and does the same contain variation of parameters which may vary throughout the project lifetime, (EB 62 Annex 5, § 20-21) <i>Describe relevance of parameters used in the sensitivity analysis as well as their likeliness to vary during the project's lifetime. Parameters which are fixed on the basis of contracts, PPAs etc. may not be subject to variation and not adequate.</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.14. Were only variables that constitute more than 20% of either total project costs	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
or total project revenues subjected to reasonable variation? (EB 62 Annex 5, § 20)				
B.5.4.15. Have parameters, constituting less than 20% of total project costs or revenues, been identified with potential material impact on the financial parameter? (EB 62 Annex 5, § 20) <i>Describe whether those parameters are considered in the sensitivity analysis?</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.16. Is the range of variation reasonable in the specific context of the project activity, taking into consideration historic trends in the business sector? (EB 62 Annex 5, § 21) <i>Describe whether the range of variation is appropriate with focus on historic developments, e.g. price of oil / labour etc., energy potential in the region in question.</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.17. In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of project IRR? (EB 62 Annex 5, § 9)	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.18. In case of equity IRR: Is the part of	/PDD/	<i>Not applicable to the project activity since additionality is justified</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
the investment costs, which is financed by equity, considered as net cash outflow and is the part financed by debt excluded in net cash outflow? (EB 62 Annex 5, § 10)		<i>through first-of-its-kind.</i>		
In case a comparison analysis has been done, go to B.5.5				
B.5.4.19. Is the type of benchmark chosen appropriate for the type of IRR calculated (e.g. local commercial lending rates or weighted average costs of capital for project IRR; required/expected returns on equity for equity IRR)? (EB 62 Annex 5, §12) <i>Describe the steps taken to validate this issue.</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.4.20. Is a pre-tax benchmark applied in case of project IRR is calculated? In cases where a post-tax benchmark is applied, assess whether actual interest payable is taken into account in the calculation of income tax. (EB 62 Annex 5, § 11) <i>If this is not the case, ensure that taxation is excluded from the investment analysis. As per the guidance it is recommended to select a pre tax benchmark in order to describe the steps taken in assessing this</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>requirement.</i>				
<p>B.5.4.21. Have both benchmark and cash flows expressed consistently, i.e. real terms (excluding the effect of inflation) or nominal terms?</p> <p><i>Describe the steps taken to validate this issue.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.4.22. Is the benchmark value suitable for the project activity and is it reasonable to assume that no investment would be made at a rate of a lower return than the benchmark?</p> <p>(VVS, v. 2.0, § 121 (c))</p> <p><i>Describe whether it is reasonable to assume that a lower rate of return would consequently result in the baseline scenario.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.4.23. Is the benchmark applied based on parameters that are available and standard in the market?</p> <p>(VVS, v. 2.0, 121 (b), EB 62 Annex 5, §§13, 15, 16, 18)</p> <p><i>Assess whether company-specific benchmarks or benchmarks based on parameters that are available in the market are suitable to the project activity. A benchmark that includes the subjective profitability expectations or risk profile of the project developer (size risk premiums, company own risk premium, etc) is not suitable for project activities open to be developed by other entities.</i></p> <p><i>If cost of equity is applied, assure that best financial practices are used and are based on data sources which can be cross-checked</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p><i>against third-party or publicly available sources.</i></p> <p><i>If cost of debt is used for the calculation of the benchmark, ensure that it is calculated as the cost of financing in the capital markets (e.g: commercial lending rates)</i></p> <p><i>If the cost/equity financing structure of the project is not yet available, 50% equity, 50% debt financing may be assumed as default.</i></p>				
Following checklist is intended for cases where intern company benchmarks are applied, otherwise go to B.5.5				
<p>B.5.4.24. Is it ensured that the project cannot be developed by other developers than the PP, so that internal company benchmarks or expected returns are suitable for the project activity?</p> <p>(EB 62 Annex 5, §§ 13 – 14)</p> <p><i>Describe how it has been validated that there is only one possible project developer.</i></p>	/PDD/	<p><i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i></p>	N/A	N/A
<p>B.5.4.25. Was the benchmark consistently used in the past by the same company for similar projects with similar risks?</p> <p>(EB 62 Annex 5, § 14)</p> <p><i>If applicable, assess the past financial behaviour of the entity during the last 3 years in relation to similar projects.</i></p>	/PDD/	<p><i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i></p>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>B.5.4.26. Was the cost of debt calculated based on the weighted average cost of debt financing of the legal entity owning the CDM project activity? (EB 62 Annex 5, § 16)</p> <p><i>If applicable, assess whether loans, bonds or debt financing from a parent company are calculated according to the latest "Guidance on Investment Analysis".</i></p> <p><i>In case that the debt structure of the project is not yet available, the cost of debt can be assumed as the commercial lending rate in the company or the yield of a 10-year bond issued by the government of the host county.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.4.27. Does the equity/debt ratio of the project reflect the long-term debt/equity finance structure of the legal entity owning the assets of the project activity? (EB 62 Annex 5, § 17)</p> <p><i>Assess the latest balance sheets of the legal entity owning the assets of the project activity, in case these are available and audited by a third party within two years prior to the submission of the PDD for validation, and the accounting books reflect the total value of all assets needed for the project activity.</i></p> <p><i>If debt/equity financing structure is not available, 50% equity, 50% debt shall be considered as default.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
B.5.5. Barrier analysis Step 3 or SSC additionality assessment				
<p>B.5.5.1. Are there any barriers given which have a clear and direct impact on the financial returns of the project?</p> <p>(VVS, v. 2.0, § 125)</p> <p><i>In case of LSC projects those issues cannot be considered as barriers and shall be assessed in the investment analysis. In case of SSC projects the same fundamentals as for LSC projects shall apply, i.e. the assessment of the investment barrier according to EB 62 Annex 5. Only unavailability of sources of finance and/or risk related barriers, for example, the risk related to technical failure that could have negative impact on financial performance are acceptable as barriers.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.5.2. Has the unavailability of means of finance for the project been described and adequately substantiated? Do evidences doubtlessly prove that the financing of the project was assured only due to the benefit of the CDM?</p> <p>(EB 50 Annex 13, § 9)</p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.5.3. Would provision of additional financial means lead to the mitigation of the barrier(s) demonstrated?</p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
(EB 50 Annex 13, § 7) <i>Describe why provision of additional financial means would not lead to mitigation of the barrier(s) demonstrated and hence analysing the project's additionality within the framework of an investment analysis is inappropriate. .</i>				
B.5.5.4. How is it justified and evidenced that the barriers given in the PDD are real? (VVS, v. 2.0, § 126(a))	/PDD/ /TA/ /first/	<p><i>Description:</i> the PP aim to demonstrate additionality through barriers due to prevailing practice, inter alia "first of its kind". Assessment of barriers is performed in table A-5 located at Annex 5.</p> <p><i>Validator's action:</i> Guidance on additionally of first-of-its-kind project activities (V.1) and the Tool for the demonstration and assessment of additionality (V.6) were checked.</p> <p><i>Conclusion:</i> Detailed assessment is given in table A-5 located at Annex 5. A CL was raised</p> <p>(CL B4) Section B.5: Further clarification is required regarding the selected <i>applicable geographical area</i> as in the Guidance on additionally of first-of-its-kind (V.1) is stated: "<i>if the technology applied in the project is not country specific, then the applicable geographical area should be extended to other countries</i>".</p>	CL-B4	OK
B.5.5.5. How is it justified that one or a set of real barriers prevent(s) the implementation of the project activity and do not prevent the implementation of at least one of the alternatives? (VVS, v. 2.0, § 126 (b))		See comments at B.5.5.4 above.		
B.5.5.6. Does the review of relevant	/PDD/	Not applicable to the project activity since additionality is justified through first-of-its-kind.	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
background information on the nature of the company(ies) and entity(ies) involved in the financing and implementation of the project sufficiently justify that the barriers related to the lack of access to capital, technologies and skilled labour are real? (EB 50 Annex 13, § 4)				
B.5.5.7. Has it been demonstrated in an objective way how the CDM alleviates each of the identified barriers to a level that the project is not prevented anymore from occurring by any of the barriers? (EB 50 Annex 13, § 5)	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
B.5.6. Common practice analysis Step 4 (in case of SSC projects or first-of-its-kind LSC projects skip this step)				
B.5.6.1. Is the defined region for the common practice analysis appropriate for the technology/industry type? (VVS, v. 2.0, § 129(a)) <i>Describe why the project activity is not common practice in a transparent and unambiguous manner. If a region other than the entire host country is chosen, describe why this region is more appropriate.</i>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
In case of projects activities applying ACM002, go to				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
B.5.6.4				
<p>B.5.6.2. To what extent similar projects have been undertaken in the relevant region?</p> <p>(VVS, v. 2.0, § 129(b))</p> <p><i>Similar projects are considered those that take place in a comparable environment w.r.t. regulatory framework, investment climate, access to technology and financing, etc. Registered CDM PA and PA that have been published on the UNFCCC website are not to be considered as similar.</i></p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.6.3. In case similar projects are identified, are there any key differences between the proposed project and existing or ongoing projects and what kind of differences are observed?</p> <p>(VVS, v. 2.0, § 129(c))</p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.6.4. In case of projects activities applying ACM002:</p> <p>Has an output range as +/- 50% of the design output of the project activity been calculated in order to define the capacity range for "similar" projects?</p> <p>(EB65 Annex 21, § 47)</p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A
<p>B.5.6.5. In case of projects activities applying ACM002:</p>	/PDD/	<i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i>	N/A	N/A

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>Does N_{all} include only plants that have started commercial operation before the the start date of the project and are within the applicable output range?</p> <p>(EB65 Annex 21, § 47)</p> <p><i>Under N_{all}, registered CDM projects and projects undergoing validation are not to be included.</i></p>				
<p>B.5.6.6. In case of projects activities applying ACM002:</p> <p>Does N_{diff} include only plants that apply different “technology” than the project activity?</p> <p>(EB65 Annex 21, §§ 9, 47)</p> <p><i>The term “technology” refers to energy fuel, investment climate (access to technology, subsidies, legal regulations, etc...) or unit cost of output.</i></p> <p><i>Assess how the essential distinctions to identify the different measures have been carried out.</i></p>	/PDD/	<p><i>Not applicable to the project activity since additionality is justified through first-of-its-kind.</i></p>	N/A	N/A
<p>B.5.7. Algorithms and/or formulae used to determine emissions reductions</p> <p><i>It is assessed whether the steps taken and the equations and parameters applied in the PDD to calculate project emissions, baseline emissions, leakage and emission reductions comply with the</i></p>				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>requirements of the selected methodology including applicable tool(s).</i>				
<p>B.5.7.1. Are the equations applied correctly according to the applied approved methodology?</p> <p>(VVS, v. 2.0, §§ 72(c), 96)</p> <p><i>Describe clearly the steps taken to assess whether the methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. Further take into consideration that all estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.</i></p>	/XLS/ /EF/	<p><input checked="" type="checkbox"/> The equations applied for calculation are correctly applied according to the approved methodology.</p> <p><input type="checkbox"/> The following mistakes have been identified in this context:</p> <p><i>Description:</i> The emission reductions^{/XLS/} and grid emission factor^{/EF/} calculation spread sheet were reviewed. The PP chose the Simple Adjusted OM as method for determination of Operating Margin.</p> <p>The validation team was able to verify that all the equations established in methodology ACM0002 and the “Tool to calculate the emission factor for an electricity system” were correctly applied.</p> <p><i>Validator’s action:</i> Emission reductions and grid emission factor calculation spread sheet were provided to the validation team.</p> <p><i>Conclusion:</i> The project activity is correctly applying the equations defined in methodology ACM0002 and the applicable tool for the grid emission factor calculation.</p>	OK	OK
<p>B.5.7.2. In case the methodology allows for different methodological choices, are the equations applied properly justified and have they been used reflecting the other methodological choices (i.e. baseline identification)?</p> <p>(VVS, v. 2.0, §§ 97, 98)</p> <p><i>Assess the correct selection and application of methodological choices. Describe whether proper justification has been provided (based on the choice of the</i></p>		<p><i>Not applicable as the methodology does not allow such choices.</i></p> <p><i>See B.5.7.3 for methodological choices of the tool to calculate the emission factor.</i></p>		

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>baseline scenario, context of the project activity and other evidence provided) and whether the correct equations have been used reflecting the relevant methodological choices.</i>				
<p>B.5.7.3. Have conservative assumptions been used when calculating the emission reductions?</p> <p>(VVS, v. 2.0, §§ 98, 99(a))</p> <p><i>Describe clearly the steps taken to assess whether all the assumptions and data used by the PP are listed in the PDD including references and sources and are conservatively interpreted in the PDD.</i></p>	<p>/EF/ /ACM 0002/ /TEF/ /amm/</p>	<p><i>Description:</i> The baseline emissions are calculated based on net energy generated multiplied by the combined margin emission factor (EF_{CM}) calculated according to the “Tool to Calculate the emission factor for an electric system”^{/TEF/} based on the public information available from the AMM web site.</p> <p>The AMM publishes the power generation data of all plants connected to the NIS. There is no specific data about the amount of fossil fuel consumed for each power plant; therefore the emission factor is determined based on the CO2 emission factor of the fuel type used and the efficiency of the power unit.</p> <p>The fossil fuels emission factor applied shall correspond to the IPCC default values at the lower limit of the uncertainty at a 95 confidence interval. Nevertheless the PP used the default value which is not in accordance with the applicable tool requirements.</p> <p>Regarding the Build Margin (BM), Option 1 was chosen. Build Margin emission factor is calculated ex ante based on the most recent information available on units already built. The most recent built power plants were determined based on the Installed capacity Report published by the AMM and also by the statistic report published also by AMM.</p> <p>At the time of submission of the CDM-PDD to the DOE for validation in April 2012, no data of energy generation of year 2011 was available. Furthermore at the time of on site visit only preliminary information of year 2011 is available. This was also confirmed during interview with the AMM. Therefore vintage data of years 2008, 2009 and 2010 used</p>	<p>CAR B1</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
		<p>to calculate the emission factor of the electricity system is considered as correct.</p> <p><i>Validator's action:</i> Data used is adequate as the power generation data is publicly available. Emission Factor calculation were reviewed.</p> <p><i>Conclusion:</i> The grid emission factor is determined at validation stage (ex-ante). Conservative assumptions were not used in all cases to calculate emission reductions. A finding was raised:</p> <p>(CAR B1) The following issues have been identified for the grid emission factor calculation:</p> <ol style="list-style-type: none"> 1. Default value of the emission factor of fuel oil, diesel and coal used to calculate the OM were used instead of the the lower limit of the uncertainty at a 95% confidence interval 2. Date of commissioning of the following plants is incorrect: Trinidad (observed 2008). 		
<p>B.5.7.4. Are all data sources and assumptions appropriate and parameters which remain fixed throughout the crediting period correct, applicable to the project and will lead to a conservative estimation of emission reductions?</p> <p>(VVS, v. 2.0, § 98)</p> <p><i>Describe clearly the steps taken to assess whether the values used for the fixed parameters are considered reasonable, correct and applicable in the context of the project activity. Check esp. chapter 6.2 of the PDD.</i></p>	<p>/EF/ /TEF/</p>	<p><i>Description:</i> the Operating Margin and the Build Margin were calculated in accordance with the latest version of the "Tool to Calculate the emission factor for an electric system"^{/TEF/}. Also other variables used in the emission reductions^{/XLS/} calculations are adequate.</p> <p><i>Validator's action:</i> The grid emission factor and emission reductions calculation spread sheets were reviewed^{/EF/ and /XLS/}.</p> <p><i>Conclusion:</i> All applied formulae and methods for calculating baseline emissions are in accordance with the approved methodology and applied tools. No project or leakage emissions are considered for this project.</p> <p>Almost all assumptions used in the emission calculation spread sheet</p>	CL-B2	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
		have been correctly justified and referenced. Nevertheless a CL B2 was raised. (CL B2) Section B.6.2: 1. Purpose of data is incorrect for EFCO _{2,i,y} 2. Default values specified in the applied tool were included.		
B.5.7.5. Are all ex-ante calculation values for monitoring parameters (as defined as per chapter B.7.1 of PDD) reasonable? (VVS, v. 2.0, § 98) <i>Describe clearly the steps taken to assess whether the values used for the monitoring parameters are considered reasonable, applicable and conservative in the context of the project activity</i>	/PDD/ /EF/ /TEF/	<input checked="" type="checkbox"/> All "Values of data to be applied for the purpose of calculating expected emissions reductions" are considered to be reasonable, applicable and conservative. <input type="checkbox"/> The following mistakes have been identified in this context:	OK	OK
B.5.7.6. Are the emission reductions real, measurable and give long-term benefits related to the mitigation of climate change. <i>Describe the steps taken to validate this issue.</i>	/PDD/ /EF/ /TEF/	<i>Description:</i> some findings have been raised and have to be closed out before forming an opinion. <i>Justification of evidences:</i> The PDD and excel spreadsheet ER calculations were checked. <i>Conclusion:</i> Please refer to the findings raised in this report.	CAR B1 CL-B2	OK
B.5.8. Monitoring of Emission Reductions <i>It is assessed whether the monitoring plan is appropriate for the project activity and in line with the applied methodology.</i>				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>B.5.8.1. Are all monitoring parameters required by the applied methodology contained in the monitoring plan?</p> <p>(VVS, v. 2.0, §§ 72 (e), 131, 132 (a) (i))</p> <p><i>Assess whether all applicable parameters listed in the methodology are included in the monitoring plan.</i></p> <p><i>Pl. check further whether the selection of parameters not to be monitored (section B.6.2) is appropriate and in line with the applied methodology.</i></p> <p><i>In case of different approaches can be chosen acc. to the methodology assess whether the selection of parameters is justified and correct.</i></p>	<p>/PDD/ /TEF/ /ACM002/</p>	<p><i>Description:</i> Yes, all monitoring parameters required by the methodology ACM0002 Version 12.3 so as per the “Tool for calculating the emission factor of an electricity system” Version 2.2.1 have been included in Section B.7.2 of the PDD.</p> <p>In addition, all parameters included in Section B.6.2 are appropriate and in line with the applied methodology. No discrepancies or mistakes were identified</p> <p><i>Validator’s action:</i> The PDD has been checked against the applicable methodology and tool</p> <p><i>Conclusion:</i> all monitoring parameters required by the applied methodology are contained in the monitoring plan. The project activity fulfils the requirement.</p>	OK	OK
<p>B.5.8.2. Are the means of monitoring of all parameters contained in the monitoring plan feasible within the project design?</p> <p>(VVS, v. 2.0, §§ 132 (b) (i), 133(b))</p> <p><i>Describe the steps undertaken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design.</i></p>	<p>/PDD/ /LAW/ /amm/</p>	<p><i>Description:</i> Yes, as the project activity is a wind farm the main monitoring parameters are related to the power generation from the project activity.</p> <p>Section B.7.1 describes that power meters (main and back up) class 0.2 will be used to monitor the power generation from the project activity. In addition, the energy delivered to the grid by the project activity will be checked against the receipts of sales.</p> <p>Furthermore, the AMM website was checked and it has been confirmed that the power generation from each plant is available.</p> <p>The validation team has checked the Resolution num. 307-02 by AMM which is the regulation applicable in Guatemala regarding measurements methods and equipment. The accuracy class of the meters to be installed is identified in the resolution num. 307-02. The accuracy class selected by the PP complies with the legislation.</p>	CL-B3	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.																																				
		<p>Regarding calibration it is stated in article 14.12 of Resolution num. 307-02 that periodic verification will be done by AMM on a yearly frequency.</p> <p><i>Validator's action:</i> The Resolution num. 307-02 ^{/LAW/} so as the AMM website^{/amm/} were checked.</p> <p><i>Conclusion:</i> the means of monitoring of all parameters contained in the monitoring plan are feasible within the project design. The proposed monitoring arrangements assure the accuracy and consistency of the monitoring parameters. Nevertheless information is missing in section B.7.1</p> <p>(CL B3) Section B.7.1: Standards to be applied, person/entity responsible for the measurements and calibration procedures are missing.</p>																																						
<p>B.5.8.3. [Name of the Monitoring Parameter, e.g, EG_y]</p> <p>(VVS, v. 2.0, § 132(a)– (ii))</p> <p><i>Indicate whether the provided information for the monitoring parameter complies with the approved methodology including applicable tool(s) in the aspects listed.</i></p> <p><i>For checking the use of international standards in the nomenclature, consider:</i></p> <p>a) <i>Standard format (e.g. 1,000 representing one thousand and 1.0 representing one).</i></p> <p>b) <i>Values shall be directly given in SI units – or additionally to original units transferred to SI.</i></p>	<p>/PDD/</p> <p>/ACM002/</p> <p>/TEF/</p>	<table><tr><th>Requirement</th><th>OK</th><th>Not OK</th><th>N/A</th></tr><tr><td>Label</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Data Unit</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Description</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Source of data</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Measurement equipment / measure method</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Monitoring frequency</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>QA/QC procedures</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Purpose of data</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>	Requirement	OK	Not OK	N/A	Label	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Data Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Source of data	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measurement equipment / measure method	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Monitoring frequency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QA/QC procedures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Purpose of data	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>CL-B3</p>	<p>OK</p>
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c) <i>Short scale naming system: (Only) million = 10⁶ and billion 10⁹ shall be used.</i>		Standard format <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SI units <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Short scale naming <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
B.5.8.4. Have all means of implementing the monitoring plan, e.g. equations necessary for ex-post emission reduction calculation, been described clearly and in line with the methodology? (VVS, v. 2.0, § 131) <i>Check whether all necessary equations have been provided in the PDD. Pl. consider that ex-post and ex-ante calculations might be different.</i> <i>Please consider that additional equations might be necessary to calculate auxiliary parameters.</i>	/PDD/ /ACM 0002/ /TEF/	<i>Description:</i> Yes, Section B.6.1 includes the detail calculation formulas for the calculation of the Operating Margin ex-ante. The emission factor will remain fixed during the whole crediting period. The equations and calculation procedures shown in the PDD are in line with the applicable methodology ACM0002 Version 12.3 and the “Tool for calculating the emission factor of an electricity system” Version 2.2.1. Furthermore, specific data sources and references have been described in Section B.7.1 and B.7.3 of the PDD. <i>Validator’s action:</i> The PDD has been checked against the applicable methodology and tool <i>Conclusion:</i> all means of implementing the monitoring plan have been clearly described in the PDD and are in line with the applicable tool and methodology	OK	OK
B.5.8.5. Is it likely that the monitoring arrangements described in the PDD can properly be implemented in the context of the project activity? (VVS, v. 2.0, § 132(b) (i)) <i>Assess whether the described monitoring arrangements are sufficient and realistic to enable a thorough monitoring. Pl. consider also special monitoring conditions, e.g. downtimes</i>	/LAW/ /PDD/ /SINGLE/ /IM01/	<i>Description:</i> Yes, It is likely that monitoring arrangements consisting of electricity meters for electricity generation will be implemented at project site and connection point to the grid and proper staff will be assigned to perform CDM monitoring activities. Also, the single-line diagram ^{/SINGLE/} of the wind farm was reviewed; this diagram shows the delivery points. <i>Validator’s action:</i> PDD was reviewed accordingly. Interviews were performed on site. <i>Conclusion:</i> The monitoring arrangements described in the PDD can	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>of monitoring equipment etc.</i>		<p>be properly implemented in the context of the project activity.</p> <p>The project activity is in accordance with the monitoring requirements established in the methodology.</p> <p>The monitoring arrangements described in the PDD are sufficient and realistic to enable a thorough monitoring</p>		
<p>B.5.8.6. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activity can be reported ex-post and verified?</p> <p>(VVS, v. 2.0, § 132(b) (ii))</p> <p><i>Please consider the description given in section B.7.2. Describe which QA/QC provisions are considered. Address Quality Management System provisions, calibration and maintenance of equipment. Address further any review procedures.</i></p>	<p>/ACM0002/ /TEF/ /PDD/ /LAW/ /IM01/</p>	<p><i>Description:</i> Yes, as per the QA/QC procedures states by the applicable methodology ACM0002 Version 12.3 the PP will crosscheck the generated electricity against the receipts of sales.</p> <p>All these QA/QC procedures have been included in Section B.7.1 and B.7.3 of the PDD. No discrepancies or mistakes were identified.</p> <p><i>Validator's action:</i> The PDD has been checked against the applicable methodology and tool.</p> <p><i>Conclusion:</i> the QA/QC procedures described in Section B.7.3 of the PDD are appropriate and sufficient to ensure that the emission reductions achieved from the project activity can be reported ex-post and verified.</p>	OK	OK
<p>B.5.8.7. Are procedures identified for data management?</p> <p>(VVS, v. 2.0, § 132(b) (ii))</p> <p><i>Check whether appropriate provisions are considered for data management including responsibilities, what records to keep, storage area of records and how to process performance documentation</i></p> <p><i>Check further the data archiving provisions for the project activity and ensure that provisions are made to archive data</i></p>	<p>/PDD/ /IM01/ /IM02/</p>	<p><i>Description:</i> Yes, procedures, type of data and responsibilities are identified and provisions for data archiving are made.</p> <p><i>Validator's action:</i> There are identified procedures for data management system and an operational and management structure for monitoring.</p> <p><i>Conclusion:</i> The procedures for data management are properly identified.</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>for the whole crediting period + 2 years.</i>				
C. Duration and Crediting Period <i>It is assessed whether the temporary boundaries of the project are clearly defined.</i>				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>C.1.1. Is the project start date consistent with the available evidences? (VVS, v. 2.0, § 106)</p> <p><i>Describe the evidence assessed regarding the prior consideration of the CDM (if necessary). Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.</i></p>	<p>/PDD/ /IM01/ /IM02/ /IM03/ /IM04/ /IM05/</p>	<p><i>Description:</i> Section C.1.1 of the PDD states that the project starting date has not been occurred yet. It is expected to be the day when the EPC contract would be signed with the technology supplier. This date is expected to be 2012/09/27.</p> <p><i>Validator's action:</i> Interviews were done during on site visit.</p> <p><i>Conclusion:</i> the project starting date has not been occurred yet. It was evidence during on site visit that no commitment to expenditures has occurred yet.</p>	OK	OK
<p>C.1.2. Is the project's operational lifetime clearly defined and evidenced?</p> <p><i>Check whether the project lifetime is correctly defined. Consider the latest "Guidance on the assessment of investment analysis".</i></p> <p><i>Check in case of phased implementation this has been reflected throughout the whole PDD incl. the financial assessment, if applicable.</i></p>	<p>/PDD/ /PLF/</p>	<p><i>Description:</i> The operational lifetime is clearly defined as 20 years in section C.1.2.</p> <p><i>Validator's action:</i> It is clearly defined at the PDD and in line with the estimated lifetime given by turbine supplier Vestas^{/PLF/}.</p> <p><i>Conclusion:</i> Operational lifetime is clearly defined and evidenced in the Wind Power Plant Assessment Report (page 19) performed by Vestas.</p>	OK	OK
<p>C.1.3. Is the start of the crediting period clearly defined and reasonable?</p> <p><i>Check whether the envisaged starting date of the crediting period is realistic, taking into consideration the times needed for validation and registration.</i></p>	<p>/PDD/</p>	<p><i>Description:</i> The starting date of the crediting period is clearly defined at section C.2.2 as 2013/11/01 or registration date whichever is later.</p> <p><i>Validator's action:</i> Reported in section C.2.2 of PDD and realistic considering time needed for validation and beginning of operation of project activity.</p> <p><i>Conclusion:</i> Starting date of the crediting period is clearly defined and realistic.</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
D. Environmental Impacts <i>Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the DOE.</i>				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA)? (VVS, v. 2.0, § 134-135) <i>Check the host party regulations regarding EIA. If no requirements for an EIA exist, discuss whether the project participants conducted an analysis for the environmental impacts of the project activity.</i>	/EIA/ /LAW/ /IM01/ /IM02/	<i>Description:</i> Article 8 of the Law of Protection and Improvement of the Environment (Government Agreement No. 68-86) and articles 12, 17 and 38-51 of the Assessment, Environmental Monitoring and Control Regulation (Government Agreement No. 431-2007) describe the requirements to present an Environmental Impact Assessment (EIA). <i>Validator's action:</i> the Law of Protection and Improvement of the Environment (Government Agreement No. 68-86) and the Assessment, Environmental Monitoring and Control Regulation (Government Agreement No. 431-2007) were checked. <i>Conclusion:</i> The Environment Ministry of Guatemala requires an EIA for all projects, industry or any other activity which by its nature can cause deterioration to renewable natural resources or the environment, or introduce harmful or noticeable changes to the landscape and cultural resources of the national heritage.	OK	OK
D.1.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been carried out in accordance with the host Party procedures? (VVS, v. 2.0, § 135) <i>Check the EIA and its approval, if applicable.</i>	/EIA/ /LAW/ /IM01/ /IM02/	<i>Description:</i> the EIA required by law was presented to the Environmental authority on 2011/10/27. Approval of the EIA was given to the project activity on 2011/12/19. The Environmental Assessment License No. 522-2012/DIGARN issued on 2012/03/21 by the Environmental Ministry was provided to the validation team. The license is valid for 1 year and has to be renewal on a yearly basis.	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
		<p><i>Validator's action:</i> The EIA and its approval and the Environmental Assessment License were checked.</p> <p><i>Conclusion:</i> the Environmental Impact Assessment^{/EIA/} of the project activity was approved by the environmental authority. The project fulfils all environmental regulation applicable in the host country. As a result the Environmental Assessment License is issued by the Environmental Authority.</p>		
<p>D.1.3. Are transboundary environmental impacts considered in the analysis?</p> <p>(VVS, v. 2.0, § 134)</p> <p><i>Check the documents and local official sources / expertise regarding transboundary environmental impacts.</i></p>	<p>/EIA/ /LAW/ /IM01/ /IM02/</p>	<p><i>Description:</i> Not applicable, since no transboundary environmental impacts are envisaged for such type of project.</p> <p>Although there are no significant environmental impacts envisaged for this project, for all impacts identified corresponding mitigation measures were prescribed in an Environmental Management Plan.</p> <p><i>Validator's action:</i> the Environmental Management Plan as part of the EIA was reviewed.</p> <p><i>Conclusion:</i> no transboundary environmental impacts were considered identified for the project activity.</p>	OK	OK
<p>E. Stakeholder Comments</p> <p><i>The DOE should ensure that stakeholder comments have been invited with appropriate media and that due account has been taken of any comments received.</i></p>				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>E.1.1. Have relevant local stakeholders been invited to consultation prior to the publication of the PDD?</p> <p>(VVS, v. 2.0, § 138-140)</p> <p><i>Check by means of document review and interviews with local stakeholders if and when a local stakeholder consultation process has been carried out.</i></p>	<p>/PDD/ /SHCP/ /EIA/ /IM03/</p>	<p><i>Description:</i> Yes, as described in section E.1, two methods were selected to consult relevant local stakeholders:</p> <ul style="list-style-type: none"> • Formal survey of opinion in surrounding communities as part of the EIA approval and • Public meeting taken place 2012/04/18. <p>Results of the formal survey of opinion in surrounding communities are included in the EIA which was approved by the environmental authority.</p> <p>The following stakeholders were invited through letters, national newspaper</p> <ul style="list-style-type: none"> • National government; • Newspapers; • Neighbours (landowners and workers from the farms) and • National Office of Clean Development (Host Country DNA) <p><i>Validator's action:</i> Stakeholder documentation^{/SHCP/} regarding invitations, questionnaires and confirmations of receipt have been presented to the validation team.</p> <p><i>Conclusion:</i> Relevant stakeholders have been invited to consultation prior to the publication of PDD for GSCP.</p>	<p>OK</p>	<p>OK</p>
<p>E.1.2. Can the local stakeholder consultation process be assessed as adequate?</p> <p>(VVS, v. 2.0, § 138-140)</p>	<p>/PDD/ /SHCP/ /IM03/ /IM04/</p>	<p><i>Description:</i> There are no specific rules in the host country DNA for the realization of the local stakeholder consultation process. This was assessed through interview with the DNA of Guatemala.</p> <p>It was reviewed that relevant stakeholders have been invited to consultation (national authorities and local community) prior to the</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p><i>Describe what assessment steps have been undertaken to assess the adequacy of the stakeholder consultation process. Give a final opinion on the adequacy.</i></p> <p><i>Please consider the following requirements in this context:</i></p> <p><i>(a) Comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity, have been invited;</i></p> <p><i>(b) The summary of the comments received as provided in the PDD is complete;</i></p> <p><i>(c) The project participants have taken due account of any comments received and have described this process in the PDD.</i></p>		<p>publication of PDD for GSCP and also adequate media as letters and newspaper announcement were used for the invitation of the stakeholders. According to the questionnaires obtained from the meetings there are no negative comments received for the project activity.</p> <p>Moreover, it has been observed during the site visit that the construction of the wind farm will not cause any significant adverse environmental impact and that local community accepts the wind farm implementation.</p> <p><i>Validator's action:</i> Invitations letters, questionnaires and confirmations of receipt were evidenced^{/SHCP/}. Also interviews with local stakeholder^{/IM03/} were performed to confirm the local stakeholder consultation process and the acceptance of the community regarding the implementation of the project activity.</p> <p><i>Conclusion:</i> The project complies with the requirements.</p>		
F. Others				
<p>F.1. Approval – Contribution to Sustainable Development</p> <p><i>The written approval of the parties involved is a mandatory requirement.</i></p>				
<p>F.1.1. Have written approvals of all parties involved been provided to the validation team? (VVS, v. 2.0, § 38)</p>	<p>/dna/ /unfccc/ /IM01/ /IM04/</p>	<p><i>Description:</i> The only party involved in the project activity is Guatemala (Host Party).</p> <p>In accordance with the CDM M&P at the stage of validation a Party involved may or may not have provided its approval at the time of making the PDD public. The approval of the parties involved is</p>	CAR F1	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p><i>Indicate whether a letter of approval has been received, with a clear reference to the supporting documentation.</i></p> <p><i>Indicate whether this letter was provided to the DOE by the project participants or directly by the DNA</i></p>		<p>required at the time of requesting registration.</p> <p>Currently the PP has requested the LoA for the project activity. Nevertheless, the LoA has not been issued yet by the DNA of Guatemala.</p> <p><i>Validator's action:</i> Interview with PP, CDM consultant and DNA of the host country was done.</p> <p><i>Conclusion:</i> The project has not provided the written approval from the DNA. Hence, CAR F1 has been raised.</p> <p>(CAR F1) At the time of site visit, the LoA is missing.</p>		
<p>F.1.2. Are the approvals issued from organisations listed as DNAs on the UNFCCC CDM website?</p> <p>(VVS, v. 2.0, §§ 41)</p> <p><i>Indicate the means of validation employed to assess the authenticity, i.e. in case of doubt whether LoA has been verified with the DNA. Further describe which entity submitted the LoA for validation.</i></p>		<p><i>See comments at F.1.1 above.</i></p>		
<p>F.1.3. Do the written approvals confirm that the corresponding party is a Party to the Kyoto Protocol?</p> <p>(VVS, v. 2.0, § 39(a))</p>	<p>/dna/ /unfccc/</p>	<p><i>Description:</i> Guatemala, the host country, has ratified the Kyoto Protocol. The DNA of Guatemala assigned for CDM is the “<i>Ministerio de Ambiente y Recursos Naturales</i>” – Ministry of Environment and Natural Resources.</p> <p><i>Validator's action:</i> Evidenced at UNFCCC website.</p> <p><i>Conclusion:</i> The project complies with the requirement. However, it is still pending to receive the DNA LoA, see CAR F1</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
F.1.4. Do the written approvals confirm that the participation is voluntary? (VVS, v. 2.0, § 39(b))		See comments at F.1.1 above.		
F.1.5. Does the written approval from the host country confirm that the project contributes to the sustainable development in the country? (VVS, v. 2.0, § 39(c))		See comments at F.1.1 above.		
F.1.6. Do the written approvals refer to the precise project title in the PDD submitted for registration or an additional specification of the project activity, e.g. PDD version number? (VVS, v. 2.0, §§ 39(d))		See comments at F.1.1 above.		
F.1.7. Are the written approvals unconditional with regard to F.1.3 to F.1.6? (VVS, v. 2.0, § 40)		See comments at F.1.1 above.		
F.1.8. Is the information regarding the project participants listed in tabular form in PDD and is internally consistent with the information provided in the section that contains the contact information of the project participants? (VVS, v. 2.0, § 46)	/PDD/ /IM01/	<p><i>Description:</i> Yes, as stated at the front page of the PDD and in Appendix 1, the only project participant is Eolico San Antonio El Sitio, S.A.</p> <p><i>Validator's action:</i> The PDD document has been checked.</p> <p><i>Conclusion:</i> The project complies with the requirement. All sections of the PDD regarding the PP information are consistent.</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<p>F.1.9. Are all project participants listed in the PDD approved at least by one Party involved?</p> <p>(VVS, v. 2.0, § 45)</p> <p><i>Indicate whether the participation of the project participant(s) has been approved by a Party to the Kyoto Protocol.</i></p> <p><i>Describe the means of validation employed to draw this conclusion.</i></p>		See comments at F.1.1 above.		
<p>F.1.10. Are any other project participants than those authorized as project participants listed in the PDD?</p> <p>(VVS, v. 2.0, § 47)</p>		See comments at F.1.1 above.		
<p>F.2. Modalities of Communication Statement</p> <p><i>A due diligence on the Modalities of Communication statement in accordance with the requirements established in the VVS is mandatory.</i></p>				
<p>F.2.1. Has a valid Modalities of Communication (MoC) been provided to the validation team from a project participant with whom the DOE has a contractual relationship?</p> <p>(VVS, v. 02, § 55)</p> <p><i>Indicate whether a MoC has been received, with a clear</i></p>	<p>/dna/ /unfccc/ /IM01/ /IM04/</p>	<p><i>Description:</i> The project participant involved in the project activity is Eolico San Antonio El Sitio, S.A..</p> <p>In accordance with the CDM M&P at the stage of validation the MoC may or may not have provided. The MoC is required at the time of requesting registration.</p> <p>Currently the PP has requested the LoA for the project activity and therefore is waiting for the host country approval before issuing the</p>	CAR F2	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>reference to the contractual relationship of the project participant with the DOE.</i>		MoC. <i>Validator's action:</i> Interview with PP and CDM consultant. <i>Conclusion:</i> The project has not provided the signed MoC. Hence, CAR F2 has been raised. (CAR F2) At the time of site visit, the MoC statement is missing.		
F.2.2. Has the MoC been signed by a duly authorized person on behalf of the respective project participant? (VVS, v. 2.0, §§ 54, 56) <i>Please Indicate how the personal and corporate identities of all project participants and focal points included in the MoC statement have been validated,:</i>		The personal and corporate identities of all project participants and focal points included in the MoC were validated by: <input type="checkbox"/> Directly checking evidence for corporate and personal entity <input type="checkbox"/> Notarized documentation <input type="checkbox"/> Written confirmation from the project participant that all corporate and personal details are accurate and valid. , including specimen signatures and employment status of their signaries whether a letter of approval has been received, with a clear reference to the supporting documentation CAR F2 was raised, please refer to it.	CAR F2	OK
F.2.3. Has the MoC statement correctly been completed? (VVS, v. 2.0, §§ 59, 60)		<input type="checkbox"/> The latest version of the form (F-CDM-MOC) has been used <input type="checkbox"/> Annex 1 of the MoC is correctly completed <input type="checkbox"/> The project participants' authorized signatories signing the MoC are also listed in Annex 1 of the MoC. CAR F2 was raised, please refer to it.	CAR F2	OK
F.3. PDD editorial aspects				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidences)	Draft Concl.	Final Concl.
<i>The PDD used as a basis for validation shall be prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website.</i>				
F.3.1. Has the latest version of the PDD form been applied? (VVS, v. 2.0, § 62)	/PDD-T/ /PDD/ /unfccc/	<i>Description:</i> Yes, it has been used the version 4 of CDM-PDD. No deviations thereof have been observed. <i>Validator's action:</i> The website if the UNFCCC was checked. <i>Conclusion:</i> The latest PDD template ^{/PDD-T/} has been used.	OK	OK
F.3.2. Has the PDD been duly filled in accordance with the latest guidance(s)? (VVS, v. 2.0, § 63)	/PDD-T/ /PDD/	<i>Description:</i> The PDD has in general been filled in accordance with the PDD guidelines. <i>Validator's action:</i> The PDD was crosschecked against the guidance for completing the PDD. <i>Conclusion:</i> The PDD has been filled according to latest guidance.	OK	OK

ANNEX 2: ASSESSMENT OF APPLICABILITY CRITERIA

Table A-2: Assessment of Applicability Criteria (VVS, v. 2.0 §§ 70 – 76)

Applicability Criteria	Evidence used	met	not met	N/A	Assessment of validation team (results and means of assessment)
For grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	/PDD/ /TECH/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The project activity fits option (a), as it consists of the implementation of a new wind power plant/unit.
The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;	/PDD/ /TECH/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The project activity is the installation of a new wind power plant/unit.

<p>In the case of capacity additions, retrofits or replacements (except for wind, solar, wave or tidal power capacity addition projects which use Option 2: on page 10 to calculate the parameter $EG_{PJ,y}$): the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;</p>	/PDD/ /TECH/	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable to the project activity as it consists of a new wind power plant.
<p>In case of hydro power plants, one of the following conditions must apply:</p> <ul style="list-style-type: none"> • The project activity is implemented in an existing reservoir, with no change in the volume of reservoir; or • The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m²; or • The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m². 	/PDD/ /TECH/	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable to the project activity as it consists of a new wind power plant.

<p>The methodology is not applicable to the following:</p> <ul style="list-style-type: none"> • Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; • Biomass fired power plants; • Hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of the power plant is less than 4 W/m². 	/PDD/ /TECH/	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable to the project activity as it consists of a new wind power plant.
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ANNEX 3: ASSESSMENT OF BASELINE IDENTIFICATION

Table A-3: Assessment of Baseline Identification (VVS, v. 2.0 §§ 88 – 95)

<input checked="" type="checkbox"/>	Baseline is pre-defined by the methodology
<input type="checkbox"/>	Assessment of baseline alternatives see below

Baseline Alternatives identified	In line with the Methodology?	Eliminated	Reasons for elimination / non-elimination from list of alternatives	Evidence used	DOE Assessment	
					Appropriateness of elimination	Assessment of validation team (results and means of assessment)

ANNEX 4: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-4: Assessment of Financial Parameters (VVS, v. 2.0, §§ 120, 121 / in case financial parameters stem from FSR §122,)

<input checked="" type="checkbox"/>	No financial parameters are used for additionality justification					
<input type="checkbox"/>	Assessment of all financial parameters see below					
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	DOE ASSESSMENT	
					Correctness of value applied	Comment

ANNEX 5: ASSESSMENT OF BARRIER ANALYSIS

Table A-5: Assessment of Barrier Analysis (VVS, v. 2.0, §§ 124-127)

<input type="checkbox"/>	No barrier parameters are used for additionality justification			
<input checked="" type="checkbox"/>	Assessment of barriers see below			
Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
First-of-its-kind	The project activity is the first-of-its-kind	/TA/ /first/		<p>According to the Tool for the demonstration and assessment of additionality (V.6) and the Guidance on additionally of first-of-its-kind project activities (V.1):</p> <p>A proposed project activity is the First-of-its-kind in the applicable geographical area if:</p> <ul style="list-style-type: none"> a) The project is the first in the applicable geographical area that applies a technology that is different from any other technologies able to deliver the same output and that have started commercial operation in the applicable geographical area before the start date of the project; and b) Project participants selected a crediting period for the project activity that is a maximum of 10 years with no option of renewal.

		/IM04/ /IM05/ /BID/ /ARECA/ /LAW/ /EXP/ /meso/	<input checked="" type="checkbox"/>	<p><u>Assessment of item a):</u></p> <p>The applicable geographical area selected by the PP is the host country – Guatemala - as the technology applied in the project is indeed country specific.</p> <p>The energy generated by the project activity will be injected into the NIS and consumed inside in the host country in order to satisfy the Guatemala ´s energy demand. This is in accordance to the Public Bid Num. PEG-2-2012 to contract capacity and electrical energy for supply purposes. The PP is participating in such bid in order to be able to install the project activity. Therefore no commitment on expenditures related to the implementation of the project activity has occurred yet.</p> <p>Furthermore different conditions apply in the region (Central America) regarding regulatory framework in the electricity sector. The energy politics of every surrounding country depends on the country itself. In case of Guatemala the General Law of Electricity regulates the generation, transmission, distribution and commercialization of electricity in the country.</p> <p>The electric sector in Guatemala develops its own regulations (as described in its Expansion Plan) and incentives to develop renewable energy projects, and it is totally independently from all other countries in the region, which also have always acted in an autonomously way in developing its own legal framework.</p> <p>Although some initial agreements between countries in the region were developed, those are intended only for sell of surplus of electricity generation if possible.</p> <p>No wind power plants have been commissioned to date in Guatemala. Therefore the project activity comprises the first effort in this direction. Therefore the geographical area selected is considered as appropriate.</p>
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				<p>Wind energy generation technology is different from any other technologies (geothermal, hydro, thermal, etc.) installed in the host country and able to deliver the same output (electricity). At the time of on site visit it was validated that no project has started commercial operation in the applicable geographical area.</p> <p>Interviews were done with the Coordinator of the DNA of Guatemala and the General Manager of AMM (Operator of the NIS). It was confirmed that no wind project is under construction, installed, or operating in Guatemala. Furthermore the UNFCCC web site was also checked. No wind project is registered as CDM in the host country.</p> <p>The validation team has performed several audits in the region (Central America) and it is well known that no wind project is installed in Guatemala.</p> <p>It is concluded by the validation team that the project activity is first of its kind in the selected geographical region and therefore it is additional.</p>
		/PDD/	<input checked="" type="checkbox"/>	<p><u>Assessment of item b):</u></p> <p>The selected crediting period for the project activity is fixed for 10. Section C.2.3 of the PDD was checked. No discrepancies were identified.</p>


ANNEX 6: OUTCOME OF THE GSCP

Table A-6: Outcome of the Global Stakeholder Consultation Process
(VVS Version 2.0, §§ 34- 37)

<input checked="" type="checkbox"/>	No comments were received during the global stakeholder consultation period					
<input type="checkbox"/>	Comments were received during the global stakeholder consultation period. The comments (in unedited form) and the consideration/response of the validation team are presented below:					
Comment No.:	Comment by:	Inserted on:	Subject	Comment ^{*)}	Action taken by the validation team to take due account on the comment ^{*)}	Conclusion (incl. CARs CLs or FARs)

^{*)} In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 7: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL



Statement of Competence
Appointment and authorization according to the procedures of the TUV NORD JICOM Certification Program

Ms. Alexandra Nebel


SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2014-08-24
JII	Senior Assessor Technical Reviewer	2014-08-24
VCS	Senior Assessor Technical Reviewer	2014-08-24

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
14.1	Forestry

095 – Rev. 3, Date: 2011-08-25

095_S01-F003_2011-08-25_rev3



Statement of Competence
Appointment and authorization according to the procedures of the TUV NORD JICOM Certification Program

Mr. Emilio Martin


SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification) Technical Reviewer	2013-11-30
VCS	Lead Assessor Technical Reviewer	2013-11-30

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal
13.1	Waste handling and disposal	13.1.1 Waste management 13.1.2 Waste water management

157 – Rev. 2, Date: 2011-08-10

157_S01-F003_2011-08-10_rev2



Statement of Competence
Appointment and authorization according to the procedures of the TUV NORD JICOM Certification Program

Mr. Raul Gonzalez Mitre

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2015-06-27
VCS / ISO 14064-2	Senior Assessor	2015-06-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies

82 – Rev. 3, Date: 2012-06-28

82_S01-F003_2012-06-28_rev3.doc