



# VALIDATION REPORT

For the CDM Project Activity

## Ventika Wind Farm

In  
Mexico

Report No. 01 997 9105067350

Version No. 02, 2012-12-09

Designated Operational Entity (DOE)

**TÜV Rheinland (China) Ltd**

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**I. Project description:**

Project title:	Ventika Wind Farm		Report No.: 01 997 9105067350
Mexico:	Mexico		Current revision No.: 02
Methodology:	ACM0002 Version 12.3.0	<input checked="" type="checkbox"/> Large Scale	Date of current revision: 2012-12-09
		<input type="checkbox"/> Small Scale	Date of first issue: 2012-11-09
Annual average emission reductions (estimate):			244,110 tCO <sub>2</sub> e/yr
GHG reducing measure/technology:	The project involves the production of 124.20 MW of energy using wind power. The wind farm will be located in General Bravo municipality, in the state of Nuevo León, Mexico.		

Party	Project Participants	Party considered a project participant	Contract party
Mexico (Host)	Ventika S.A de C.V.	No	<input type="checkbox"/>
United Kingdom	CEMEX International Finance Company	No	<input type="checkbox"/>
United Kingdom (Host)	CO2 Global Solutions International S.A.	No	<input checked="" type="checkbox"/>

**II. Validation Team:**

Validation Team			Role									
Full name	Affiliation TÜV Rheinland	Appointed for Sectoral Scopes (Technical Areas)	Team leader	Acting Team Leader	Local Expert	Team Member (Auditor)	Technical Expert	Acting Tech. Expert	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Arturo Lemus	Mexico	1, 13	X				X					
Guadalupe Avendaño	Mexico	1,13				X						
Hector Bracamontes	Mexico	1,13						X	X			
Kamala Devi Muniandy	China	5,11,12,13								X		
Cuiping Deng	China	1,4,5,8,10,11,12									X	

**Validation Phases and Validation Status:**

- ☒ Desk Review    ☒ Follow up interviews    ☒ Resolution of outstanding issues  
☐ Corrective Actions / Clarifications Requested    ☒ Full Approval and Submission for Registration    ☐ Rejected

**III. Validation Report:**

Final approval	Released	Distribution
<input checked="" type="checkbox"/>	By: Mr. Praveen Urs	<input checked="" type="checkbox"/> No distribution without permission from the Client or responsible organizational unit
Date: 2012-12-11		<input type="checkbox"/> Unrestricted distribution

## Executive Summary – Validation Opinion

The validation team assigned by the DOE (TÜV Rheinland (China) Ltd.), here after called TRC, is been assigned by “CO2 Global Solutions International S.A. “to perform the validation of their project “Ventika Wind Farm “. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism. The scope of the validation is defined as an independent and objective review of the project design document, the project’s baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against CDM Validation and Verification Standard (Version 03.0), Kyoto Protocol requirements, CDM Executive Board/UNFCCC rules.

The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews, site visit, and stakeholder interviews, review of the applicable methodology and its underlying formulae and calculations.

### Validation methodology and process

The validation has been performed as described in the VVS version 03.0 and constitutes the following steps:

- Publication of the PDD on the UNFCCC website (25/11/2011 – 24/12/2011)
- Desk review of the PDD and the relevant documents
- On-site assessment (16/01/2012 – 18/01/2012)
- Issuance of Validation Report

### Validation criteria

The following CDM requirements have been considered:

- Article 12 of the Kyoto Protocol,
- Modalities and procedures for CDM (Marrakech Accords)
- Subsequent decisions by the COP/MOP and CDM Executive Board
- Mexico criteria
- Criteria given to provide for consistent project operations, monitoring and reporting.

The host party is Mexico and the Annex I country is United Kingdom. Both parties fulfill the participation criteria and have approved and authorized the project and the project participants. The DNA from Mexico confirms that the project assists in achieving sustainable development.

The project correctly applies the baseline and monitoring methodology ACM0002, version 12.3.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”.

The project results in reductions of CO<sub>2</sub> emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The validation did not reveal any information that indicates that the project can be seen as a diversion of ODA funding towards” Mexico”.

The monitoring plan provides for the monitoring of the project’s emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is TRC’s opinion that the project participants are able to implement the monitoring plan.

By fossil fuel consumption displacement through Wind Power Energy Generation the project activity will result in reductions of greenhouse gas (GHG) the project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

The total emission reductions from the project are estimated to be 1,708,770t of CO<sub>2</sub>e over a 7 year crediting period, averaging 244,110t of CO<sub>2</sub>e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not alter.

The validation protocol describes a total of (43) findings which include:

- (30) Corrective Action Requests (CARs);
- (12) Clarification Requests (CLs);
- (1) Forward Action Requests (FARs); and all findings have been closed satisfactorily, the issue in FAR will be addressed and closed at the verification phase

TRC concludes that the CDM Project Activity “Ventika Wind Farm” in Mexico, as described in the PDD (4, 30/11/2012), meets all relevant requirements of the UNFCCC for CDM project activities including article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakesh Accords) and the subsequent decisions by the COP/MOP and CDM Executive Board.

The selected baseline and monitoring methodologies (ACM0002, Version 12.3.0) are applicable to the project and correctly applied. The TRC therefore requests the registration of the project as a CDM project activity with UNFCCC.

Arturo Lemus (Team Leader)



TÜV Rheinland Mexico  
City, 2012-12-09

Mr. Praveen Nagaraje Urs (DOE Manager)



TÜV Rheinland (China) Ltd.  
Beijing, 2012-12-11

**Abbreviations**

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	CDM Validation and Verification Standard
CER	Certified Emission Reduction(s)
CFE	Comisión Federal de Electricidad (Federal Commission of Electricity)
CH <sub>4</sub>	Methane
CL	Clarification request
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
CRE	Comisión Reguladora de Energía (Commission of Energy Regulation)
DNA	Designated National Authority
DOE	Designated operational entity
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of approval
N <sub>2</sub> O	Nitrous oxide
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PP	Project Participant
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales (Ministry of Environment and Natural Resources)
SEN	Sistema Eléctrico Nacional (National Electric System)
SENER	Secretaría de Energía (Ministry of Energy)
tCO <sub>2</sub> e	Tonnes of CO <sub>2</sub> equivalents
TRC	TÜV Rheinland (China) Ltd.
UNFCCC	United Nations Framework Convention on Climate Change
GWP	Global Warming Potential
VVS	Validation and Verification Standard

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## 1. Introduction:

The organization “CO2 Global Solutions International S.A.” has commissioned the DOE TÜV Rheinland (China) Ltd. to perform a validation of the CDM Project Activity “Ventika Wind Farm” in Mexico (hereafter called “the project”). This report summarises the findings of the validation of the project, performed on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. The term “UNFCCC criteria” refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

### 1.1 Objective:

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

### 1.2 Scope:

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the relevant criteria (see above) and decisions by the CDM Executive Board, including the approved baseline and monitoring methodology. The validation team has, based on the recommendations in the Validation and Verification Standard employed (latest version) a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of CERs. The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

While carrying out the validation, TRC determines if the project activity complies with the requirements of Para 37 of the CDM M&P and also assess the claims and assumptions made in the PDD without limitation on the information provided by the project participants.

The scope of the validation is:

- To apply TRC's own quality management system integrated with the VVS standard along with the recent decisions and guidance provided by the UNFCCC board to determine if the project activity meets all applicable CDM requirements, including those specified in the project standard, relevant methodologies, tools and guidelines and processing the same with CDM project cycle procedure;
- Asses the accuracy, conservativeness, relevance, completeness, consistency and transparency of the information provided by the project participants;
- Determine whether information provided by the project participants are reliable and credible;
- Present information in the form of validation report in a factual, neutral, coherent manner and document all assumptions, provide references to the background material and identify changes made to the documentation;
- Base the findings and conclusions on objective evidence and conduct all validation in accordance with CDM rules and procedures;
- Apply consistent validation criteria in providing expert judgments to the requirements of applicable approved methodologies, tools and also cross check the same with projects of similar characteristics, technology, time period and region; and
- Safeguard the confidentiality of all information's obtained or created during validation.
- Where sampling is involved, the standard for sampling and surveys are applied.

## 2. Methodology:

The validation consists of the following four phases:

- I A desk review of the project design documents
  - Publication of PDD in UNFCCC for global stakeholder consultation;
  - A review of data and information;
  - Cross checking between information provided in PDD with all necessary means without limitations to the information provided by the project proponent;
- II On-site visit and follow-up interviews with project stakeholders
  - Interviews with relevant stakeholders in Mexico with personnel's having knowledge with the project development via telephone, email or direct on-site visits;
  - Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project proponent;
- III Reference to available information's relating to projects or technologies similar projects under validation and review based on the approved methodology being applied of the appropriateness of formulae and accuracy of calculations.
- IV The resolution of outstanding issues and the issuance of the final validation report and opinion.

The following sections outline each step in more detail.

### 2.1 Desk Review of the Project Design Documentation:

The following table outlines the documentation reviewed during the validation:

Ref no.	Reference Document
/1/	PDD [Ventika Wind Farm], Version 01, Date 07/11/2011
/2/	PDD [Ventika Wind Farm], Version 04, Date 30/11/2012
/3/	Mexico Approval / Letter of Approval: ( Mexico), DNA(Comision Intersecretarial de Cambio Climatico), reference number / (#290/2012), Date: 26/01/2012
/4/	As applicable: Annex I party Letter or Approval: (United Kingdom), (Environment Agency), reference number / (EA/CO2GSI/04/2012), Dated: 27/03/2012 Annex I party Letter or Approval: (United Kingdom), (Environment Agency), reference number / (EA/CIFCO/07/2012), Dated: 11/04/2012
/5/	Modalities of Communication: dated 03/04/2012
/6/	Clean Development Mechanism Validation and Verification Standard (version 03.0)
/7/	Clean Development Mechanism Project Cycle Procedure (version 03.0)
/8/	Clean Development Mechanism Project Standard (version 02.0)
/9/	As applicable: CDM-PDD - Project Design Document form, Version 04.1 or GUIDELINES FOR COMPLETING THE PROJECT DESIGN DOCUMENT (CDM-PDD) AND THE PROPOSED NEW BASELINE AND MONITORING METHODOLOGIES (CDM-NM), Version 01 <a href="http://cdm.unfccc.int/Reference/Guidclarif/index.html#pdd">http://cdm.unfccc.int/Reference/Guidclarif/index.html#pdd</a>
/10/	Approved Baseline & Monitoring Methodology: ACM0002 "Consolidated Baseline methodology for grid-connected electricity generation from renewable sources version 12.3.0
/11/	Siemens (2011):Technical specification of wind turbines
/12/	GL Garrad Hassan (2012):Preliminary Energy Yield Estimate for the Ventika I and II Wind Farms, dated 24/09/2012
/13/	SENER (2010):Electricity Sector Outlook 2010-2025
/14/	CRE (2011): Energy Self-Generation Permit E/912/AUT/2011
/15/	CRE (2012): Self Generation Permit Resolution RES/235/2012
/16/	SEMARNAT (2012):Approval of EIA SGPA/DGIRA/DG/8111
/17/	CO2 Solutions (2012) ER calculation model
/18/	CO2 Solutions (2012) Financial model version 4 Dated 27/09/2012
/19/	Empresas Asociadas del Noreste (2011) Evidence of Measurement Tower Contract (2011), dated 01/06/2011
/20/	Siemens (2012): Evidence of Collection line, Roads and Foundation base cost, dated 10/02/2012
/21/	Siemens (2012): Evidence of Wind Turbines Cost and O&M cost, dated 10/02/2012



/22/	Contract (2011):Evidence of land cost dated 05/09/2011
/23/	Contract (2011):Evidence of land right of way, dated 21/09/2012
/24/	Empresas Asociadas del Noreste (2011): Evidence of construction of road, dated 04/10/2011
/25/	Emanuel Rincon y Asesores (2011):Evidence of Environmental studies cost ,dated 12/10/2011
/26/	CFE (2011): Evidence of transmission cost, dated 27/10/2011
/27/	CFE (2011): Evidence of electricity tariff, dated 01/11/2011
/28/	CO2 Solutions (2011). Common practice Analysis
/29/	Ventika (2011): Stakeholder presentation
/30/	Ventika (2011): Stakeholders pictures
/31/	Ventika (2011): Stakeholders participation list & surveys
/32/	Ventika (2011): Stakeholders minutes dated 04/11/2011
/33/	Ventika (2011): Stakeholders means of invitation
/34/	Written Confirmation from authorized signatory in the MoC Ventika S.A de CV CEMEX International Finance Company CO2 Global Solutions SA
/35/	Siemens. How can Wind Power reach grid parity?. Available at: <a href="http://www.haavind.no/Global/Aktuelt%20og%20Publikasjoner/Kurs%20og%20seminarer/Siemens.pdf">http://www.haavind.no/Global/Aktuelt%20og%20Publikasjoner/Kurs%20og%20seminarer/Siemens.pdf</a>
/36/	UNFCCC (2010) Email with a Clarification on the CDM project start date
/37/	UNFCCC: Tool for the demonstration and assessment of additionality, Version 06.1.0
/38/	UNFCCC: Guidelines on the assessment of investment analysis Version, 05
/39/	UNFCCC: Tool to calculate project or leakage CO <sub>2</sub> emissions from fossil fuel combustion, Version 2
/40/	UNFCCC: Tool to calculate the emission factor for an electricity system, Version 02.2.1
/41/	CEMEX (2011): Meeting minutes dated 24/03/2011
/42/	CO2 Solutions (2011): Evidence of Prior Consideration Notification to DNA, dated 03/11/2011
/43/	CO2 Solutions (2011): Confirmation of CDM Prior Consideration from UNFCCC, dated 02/11/2011
/44/	Mexico Central Bank (2011) 20-year Government Bond Rates
/45/	Damodaran (2010) Evidence of Country Risk Premium
/46/	SENER (2011) National Balance of Energy 2011. Available at: <a href="http://www.sener.gob.mx/res/PE_y_DT/pub/2012/BNE_2011.pdf">http://www.sener.gob.mx/res/PE_y_DT/pub/2012/BNE_2011.pdf</a>
/47/	Wind power Monthly (2002):Choosing partners for Mexico plant. Available at: <a href="http://www.windpowermonthly.com/news/953580/Choosing-partners-Mexico-plant/?DCMP=ILC-SEARCH">http://www.windpowermonthly.com/news/953580/Choosing-partners-Mexico-plant/?DCMP=ILC-SEARCH</a>
/48/	University of Massachussets. Wind Power: Capacity Factor, Intermittency, and what happens when the wind doesn't blow? Available at: <a href="http://www.umass.edu/windenergy/publications/published/communityWindFactSheets/RERL_Fact_Sheet_2a_Capacity_Factor.pdf">http://www.umass.edu/windenergy/publications/published/communityWindFactSheets/RERL_Fact_Sheet_2a_Capacity_Factor.pdf</a> (Consulted on 06/11/2012)
/49/	SEMARNAT (2012): Ley General del Equilibrio Ecológico y la protección del ambiente. Available at: <a href="http://www.diputados.gob.mx/LeyesBiblio/pdf/148.pdf">http://www.diputados.gob.mx/LeyesBiblio/pdf/148.pdf</a>
/50/	DNA Mexico (2012):Email confirmation of the authenticity of LoA, dated 06/11/2012
/51/	DNA UK (2012):Email confirmation of the authenticity of LoA, dated 06/11/2012
/52/	CO2 Solutions (2011):Financial model Version 1 at the publication of the GSP PDD, dated 01/11/2012
/53/	TUV Rheinland (2012):Observation notes for the on-site visit, dated 16/01/2011
/54/	GE (2011) Wind turbine Quotation. Dated on 31/10/2011
/55/	Civil and Electric Cost. Dated on 17/10/2011
/56/	Measurement Tower Contract. Dated on 01/08/2011
/57/	Transmission line and interconnection quotation. Dated on 20/09/2011
/58/	Land right cost. Dated on 27/09/2011
/59/	Environmental Studies Cost. Dated on 12/10/2011
/60/	Cost of construction of the road. Dated on 04/10/2011
/61/	O&M Cost. Dated on 14/10/2011
/62/	Transmission Cost. Dated on 27/10/2011

/63/	Average Energy Price. Dated on 01/11/2011
/64/	CO2 Solutions, Email confirmation of the meeting between CO2 Solutions and CEMEX.. Dated 28/09/2011
/65/	UNFCCC, Guidelines for the reporting and validation of plant load factors, version01, EB48, Annex11

## 2.2. Follow-up Interviews with Project Stakeholders:

An on-site visit to the project location was not performed by the audit team, due to the high crime risk that the municipality of General Bravo, located in the Mexican state of Nuevo Leon is currently facing<sup>1</sup>. However, document review was carried out at the facilities of CEMEX, at Monterrey city state/region of Nuevo Leon, two hours from the site where the wind project will be implemented. TUV Rheinland performed interviews with the project representatives and stakeholders. The document review at the CEMEX facilities was conducted to validate the accuracy and completeness of the project description as specified under webhosted PDD.

During the document review at CEMEX facilities, the validation team reviewed the available project activity designs, feasibility studies, and documentation check and comparison analysis with equivalent projects as appropriate.

Prior to the interview salient points to be discussed were planned. Date of interview, interviewee and points discussed are given in the following table.

	Date	Name	Organization	Topic
/i/	16/01/2012	Maria Velasco Rendon	CO2 Solutions	<ul style="list-style-type: none"> <li>General description of the Project activity</li> <li>Technology to be applied</li> <li>Application of the baseline and monitoring methodology</li> <li>Description of the baseline scenario</li> <li>Additionality</li> <li>Emission reductions formulae and calculations</li> <li>Monitoring parameters</li> <li>Monitoring plan</li> <li>Duration of project activity</li> <li>Environmental impacts</li> <li>Stakeholders consultation</li> </ul>
/ii/	16/01/2012	Ingrid del Toro	CO2 Solutions	<ul style="list-style-type: none"> <li>General description of the Project activity</li> <li>Technology to be applied</li> <li>Application of the baseline and monitoring methodology</li> <li>Description of the baseline scenario</li> <li>Additionality</li> <li>Emission reductions formulae and calculations</li> <li>Monitoring parameters</li> <li>Monitoring plan</li> <li>Duration of project activity</li> <li>Environmental impacts</li> <li>Stakeholders consultation</li> </ul>

<sup>1</sup> <http://world.utexas.edu/risk/restrictedregions/mexico>

/iii/	16/01/2012	Javier Mazatan	CEMEX	Technical Project Description
/iv/	16/01/2012	Karla Arrambide	CEMEX	Stakeholders Consultation
/v/	16/01/2012	Roberta Palau	CEMEX	Financial Model
/vi/	16/01/2012	Francisco Coronado	CEMEX	Technical Project Description

Validation Team considered the views obtained in these interviews while arriving at Validation Opinion.

### 2.3 Resolution of Outstanding Issues:

The objective of this phase of the validation is to resolve any outstanding issues (issues that require further elaboration, research or expansion) which need be clarified prior to TÜV Rheinland's positive conclusion on the project design. In order to ensure transparency a validation protocol is customized for the project. The protocol shows in transparent manner criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet CDM requirements;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.
- It ensures that the issues are accurately identified, formulated, discussed and concluded in the validation report.
- It ensures the determination of achieving credible emission reductions from the project activity.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below. The completed validation protocol for this project is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfillment of CDM criteria or where a risk to the fulfillment of project objectives is identified. Corrective action requests (CAR) are issued, where:

- Mistakes have been made with a direct influence the ability of the project activity to achieve on project results like real, measurable, verifiable and additional emission reductions;
- CDM and/or methodology specific requirements have not been met; or
- There is a risk that the project would not be accepted as a CDM project or that emission reductions will not be certified.

A request for clarification (CL) may be used where additional information is needed to fully clarify an issue.

A forward action request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.

<b>Validation Protocol Table 1: Validation requirements</b>				
<b>Checklist Question</b>	<b>Reference</b>	<b>Means of Validation (MoV)</b>	<b>Comment</b>	<b>Draft and/or Final Conclusion</b>
The various UNFCCC requirements as specified in the VVS are linked to checklist questions the project should meet. The checklist is organized in different sections, following the logic of the VVS.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of validation are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a corrective action request (CAR) due to non-compliance with the checklist question (See below). A request for clarification (CL) is used when the validation team has identified a need for further clarification.

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

<b>Table 3: List of forward action requests (FARs)</b>			
<b>FAR number</b>	<b>Reference</b>	<b>Summary of project owner response</b>	<b>Validation team conclusion</b>
Forward action request (FAR) to be raised during validation to highlight issues related To project implementation that requires review during the first verification of the project activity. FARs Shall not relate to the CDM requirements for registration.	Reference to the checklist question number in Table 2 where the CAR or CL is explained.	The responses given by the project participants during the communications with the validation team should be summarized in this section.	This section should summaries the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".

**Figure 1. Validation protocol tables**

## 2.4 Internal Quality Control:

The final validation report underwent a technical review by a qualified independent reviewer before requesting registration of the project activity. The technical review was performed by a technical reviewer qualified in accordance with TÜV Rheinland's qualification scheme for CDM validation and verification that meets the criteria of EB guidelines for qualification.

## 2.5 Validation Team:

Before the assessment begins, members of the validation team are ensured to cover the technical area(s), sectoral scope(s) and relevant Mexico experience including local language ability for evaluating the CDM project activity. The qualification of the team is as per the criterias defined by the EB guidelines for qualification.

Validation Team			Type of Involvement						
Full name	Affiliation TÜV Rheinland	Appointed for Sectoral Scopes (Technical Areas)	Supervising the work	Desk review	Site Visit + Interview	Report and protocol Writing	Technical Expert Input	Reporting Support	Technical Reviewer
Arturo Lemus	Mexico	1, 13	X	X	X	X	X		
Guadalupe Avendaño	Mexico	1, 13						X	
Hector Bracamontes	Mexico	1, 13		X	X	X			
Kamala Devi Muniandy	China	5, 11, 12,13							X
Cuiping Deng	China	1, 4, 5, 8, 10, 11, 12							X

## 3. Validation Findings:

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of validation and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

The final validation findings relate to the project design as documented and described in the revised and resubmitted project design documentation.

### 3.1 Approval and Participation:

#### 3.1.1 Letter of Approval:

The below table summarizes the project participants and parties involved. The authenticity of the letters of approval has been validated by TÜV Rheinland validation team.

These LoA(s) are therefore regarded as valid and meeting the requirements /3//4/.

Project participants	1. Ventika S.A. de C.V.	2. CEMEX International Finance Company	(3.) CO2 Global Solutions S.A
Parties involved	Mexico(host)	United Kingdom	United Kingdom
APPROVAL			
LoA received	Yes	Yes	Yes
Date of LoA	2012-01-26	2012-04-11	2012-03-27
Reference to document	Ref. # 290/2012	Ref. # EA/CIFCO/07/2012	Ref. # EA/CO2GSI/04/2012
LoA received from	PP	PP	PP
Validation of authenticity	Email with the DNA /50/	Email with the DNA /51/	Email with the DNA /51/
Validity of LoA	Valid	Valid	Valid
PARTICIPATION			
Party is party to Kyoto Protocol	Yes	Yes	Yes
Voluntary participation	Yes	Yes	Yes
Diversion of official development aid towards Mexico	Yes	Yes	Yes
Project contribution to Sustainable Development	Yes	Yes	Yes

The validation team confirms that the information related to the letter of approval as mentioned in the above table is authentic. The validation team has confirmed the same through DNA email communication with the Mexico's DNA staff /50/, specifically Lucrecia Martin Chavez, Sub-director of Climate Change Projects of the Interministerial Commission on Climate Change on 06/11/2012 and UK's DNA staff /51/, specifically Dawn L. McDermott, DNA team member of Environmental Agency. The entire project participants listed in the tabular form of the PDD have obtained the letter of approval from their respective DNA.

### 3.1.2 Modalities of Communications:

Requirement of MOC	Criteria fulfilled	Determination by the validation team
Is the focal point identified	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cemex International Finance Company is identified as the sole focal point for: a) Authority to instruct the secretariat and communicate with the CDM EB on allocation/forwarding of CERs; b) Authority to request the addition of project participants and/or to communicate any voluntary withdrawal and to update contact details of project participants (includes changes in company's name and legal status, addressed, etc) c) Communication with the secretariat and CDM EB on matters related to registration and/or issuance.
Is the MOC signed by all project participant (including focal point identified entity/personal)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yes, MOC is signed by all project participant (focal point included)
Is the written confirmation obtained by the PP's stating the authorization, specimen signatures and personal details,	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yes, written confirmation has been obtained from PP /34/



employment status are valid and accurate?		
Is MOC received by the validation team from the PP with whom DOE has the contractual relationship?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yes, MOC was received from the contractual entity.

The validation team confirms that the applicable latest template is been employed by the project participant for the MOC /5/. The MOC is been received from the DOE's contractual project participant. All the personal who have duly signed the MOC are been confirmed from the written communication /34/ by the project proponent regarding their personal identity, specimen signatures and employment status,

### 3.2 Project Design Document:

The Project Design Document is based on the currently valid PDD template and is completed in accordance with the applicable guidance document /9/.

### 3.3 Project Description:

The "Ventika Wind Farm" is a wind power project implemented near the municipality of General Bravo, located in the Mexican state Nuevo Leon. The project "Ventika Wind Farm" has the central coordinates at: +25.7796 , -98.7231. Wind measurement towers are located at the geographic coordinates of:

Meteorological Tower	Geographic Coordinates
1	+25.7400 -98.7300
2	+25.7600 -98.7300
3	+25.7700 -98.7600
4	+25.7600 -98.7000

The mentioned geographic coordinates are reported in the last version of the PDD /2/, which were counterchecked by the validation team via public online source (Google Earth), confirmed to be correct. The average wind speed is 8m/s at 100m height within the project site /12/, condition necessary to fulfill the amount of energy to be produced expected on site. The construction has not been started but coordinates were obtained from the land acquired by PP /22/ /23/.

The project design consist of 54 wind turbines of 2.3 MW each one having a total installed capacity of 124.20 MW , expecting 412,349MWh/year with a load factor of 37.9% /12/ as described in the PDD/2/. Ex-ante GHG emission reductions of the project activity are 244,110 tCO<sub>2</sub>e annually during the first 7-years. As per methodology, there is no leakage considered in this project.

Siemens is the manufacturer of the turbines SWT 2.3 MW, utilized on site, as described on the PDD value that was checked against manufacturer specifications, /11/. Turbines have an expected operational life of 20 years, which is consistent with the information provided by manufacturer /35/.

The project will be connected to the national grid in a substation through a transmission line with a voltage of 230 KV and a length of 14.4 km/2/.

A renewable crediting period of 7 years is selected. The starting date of the first crediting period is indicated as 15/07/2014 or the proposed project activity CDM registration date, whichever is later. The expected operational lifetime of the project activity is 20 years /35/.

Starting date of project	Expected project operational lifetime	Crediting period
28/02/2013 (Expected date of purchase contract for the turbines) /2//36/	20 years	15/07/2014 – 14/07/2021 (7 years)

Herewith, the Validation Team summarizes major changes between webhosted PDD and final version of PDD for submission as follows:

Subject	Webhosted PDD	Correction to webhosted PDD in the final PDD submission for registration with DOE assessment and reason of acceptance.
PDD (project title / participants involved/ project location /project technology etc.)	<p>PDD format as per VVM track</p> <p>Central Coordinates of the wind farm: 25°44'56.05"N 98°44'08.12" W.</p> <p>Technology: Wind turbines GE 1.6-100 Nominal power per turbine: 1.6 MW Installed Capacity 126.4 MW No of turbines: 79 Capacity Factor: 45%</p> <p>Electricity Permit on 15/07/2011</p>	<p>PDD format as per VVS track</p> <p>Central Coordinates of the wind farm: +25.7796, -98.7231</p> <p>Technology: Wind turbines Siemens SWT 2.3 MW Nominal power per turbine: 2.3 MW Installed Capacity 124.2 MW No. of turbines: 54 Capacity Factor: 37.9%</p> <p>Updated Electricity Permit on 08/12/2011</p> <p>Validation team accepts the changes because PP has defined this technology for the proposed project activity /2/ and there is accordance with the CRE permit /14//15/. Also, the capacity factor was obtained as per wind study from Garrad Hassan /12/. Furthermore, the geographic coordinates are stated as per UNFCCC format. Finally, the PDD format is the latest version as per VVS track</p>
Methodologies and tools applied ( scope and version numbers)	<p>ACM0002 Version 12.1.0, Consolidated Baseline Methodology for grid-connected electricity generation from renewable sources</p> <p>Tools:</p> <ul style="list-style-type: none"> <li>• <i>Tool for the demonstration and assessment of additionality Version 05.2.1;</i></li> <li>• <i>Combined tool to identify the baseline scenario and demonstrate additionality Version 3.0.1;</i></li> </ul>	<p>ACM0002 Version 12.3.0, Consolidated Baseline Methodology for grid-connected electricity generation from renewable sources</p> <p>Tools:</p> <ul style="list-style-type: none"> <li>• <i>Tool for the demonstration and assessment of additionality Version 06.1.0</i></li> </ul> <p>Validation team accept the changes because the methodology and the tools version are valid at the time for requesting registration</p>
CER calculations (formula applied/ amount of emission reduction)	<p>Average Emission Reductions: 294,726 t CO<sub>2</sub>e/year Plant load factor: 45% Annual Production: 498,269 MWh/year</p>	<p>Average Emission Reductions: 244,110 t CO<sub>2</sub>e/year Plant load factor: 37.9% Annual Production: 412,349MWh/year</p> <p>Validation team accepts the emission reductions stated in the PDD /2/ and cross-checked with ER calculation model /17/. This will be further discussed in section 3.4.4.</p>
Additionality: (Benchmark / input values/analysis type/project start date/IRR or NPV values etc.)	<p>Investment: USD 336,113,904 Average Annual Operation Costs: USD 10,263,333. Annual Income: USD 60, 346,672 IRR: 11.86% /52/ Project start date: February 2013</p>	<p>Investment: USD 335,953,103 Average Annual Operation Costs: USD 10,293,983 USD. Annual Income: USD 60,436,672 IRR: 11.86% Project start date: 28/02/2013</p>



		Validation team confirmed the changes stated in the PDD /2/ and cross-checked with the financial model /52/.
Monitoring (parameters frequency )	$EG_{facility,y}$ : Continuous measurement and at least monthly recording.	<p>Description of monitoring plan enhanced: “<math>EG_{facility,y}</math>: Extra information of the meters:</p> <ul style="list-style-type: none"> <li>• Number of meters: 2 meters outside wind farm (1 main, 1 backup) in the interconnection point.</li> <li>• Type: bidirectional</li> <li>• Accuracy class: Max error 0.2 %</li> <li>• Calibration frequency: yearly</li> </ul> <p>Measurement: Continuously measurement (5 minutes) and monthly recording.</p> <p>The metering equipment will be properly calibrated and checked annually for accuracy, as per Mexican law and/or PPA.</p> <p>The validation team accepted the improvements in the monitoring plan description as stated in the PDD /2/</p>
Crediting period ( type / start date)	Start date of crediting period: July 2014	<p>Start date of crediting period: 15/07/2014</p> <p>The validation team accepts the changes as the date format is according to the Guideline for completing PDD /9/.</p>
<p>Please refer to Appendix A of this report for details of each change between webhosted PDD and the final PDD for submission. The Validation Team has carried out the validation process based on the Webhosted PDD and raised CARs/CLs against the project by issuing the validation protocol.</p> <p>With the updated information and corrections done on final PDD, the PP has addressed all the CARs /CLs that were raised by the Validation Team.</p> <p>It is concluded that the Validation Team has reviewed the project in line with the VVS (version 03.0) and all the evidence, corrections, justifications and updating done on the final PDD with respect to CARs /CLs raised are accepted and closed by the Validation Team, issuing the positive validation opinion for project registration. FAR are further issued to the DOE verification team to check the implementation and operational completeness during the first verification.</p>		

TÜV Rheinland validation team considers the project description of the project contained in the PDD to be complete and accurate. The PDD complies with the relevant methodology, tools, forms and guidance at the time of PDD submission for registration.

### 3.4 Baseline and Monitoring Methodology:

#### 3.4.1 Applicability of the selected methodology to the project activity

Approved baseline and monitoring methodology ACM0002 “Consolidated Baseline Methodology for grid-connected electricity generation from renewable sources” (version 12.3.0) has been applied for the proposed project activity. At the time of GSP of the PDD (version 01, dated 2011/11/07) and methodology (ACM0002) version 12.1.0 applied was the latest one. The version 12.3.0 is applicable, if requests for registration for the project can be submitted until 2013/01/11, 23:59 GMT.

The validation team determined the applicability of methodology ACM0002 (version 12.3.0) as follows:

Applicability criteria of the methodology (ACM0002), Version 12.3.0	Criteria fulfilled	Determination by the validation team
The project activity is the installation, capacity	<input checked="" type="checkbox"/> Yes	The project activity consists of a new grid

Applicability criteria of the methodology (ACM0002), Version 12.3.0	Criteria fulfilled	Determination by the validation team
<p>addition, retrofit or replacement of a power plant/unit of one of the following types:</p> <ul style="list-style-type: none"> <li>• Hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir)</li> <li>• Wind power plant/unit,</li> <li>• Geothermal power plant/unit,</li> <li>• Solar power plant/unit,</li> <li>• Wave power plant/unit, or Tidal power plant/unit.</li> </ul>	<input type="checkbox"/> No	<p>connected renewable power plant generation (wind power plant).</p>
<p>In the case of capacity additions, retrofits or replacements (except for capacity addition projects for which the electricity generation of the existing power plant (s) or unit (s) is not affected): 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>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>The project activity consists of a new grid connected renewable power plant generation. Thus, condition does not apply.</p>
<p>In case of hydro power plants:</p> <ul style="list-style-type: none"> <li>• At least one of the following conditions must apply: <ul style="list-style-type: none"> <li>o The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or</li> <li>o The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of the reservoirs is increased and the power density of each reservoir, as per definitions given in the Project Emissions section, is greater than 4 W/m<sup>2</sup> after the implementation of the project activity; or.</li> <li>o The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup> after the implementation of the project activity.</li> </ul> </li> </ul> <p>In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m<sup>2</sup> after the implementation of the project activity all of the following conditions must apply:</p> <ul style="list-style-type: none"> <li>• The power density calculated for the entire project activity using equation 5 is greater than 4 W/m<sup>2</sup>;</li> <li>• All reservoirs and hydro power plants are located at the same river and were designed together to function as an integrated project that collectively constitutes the generation capacity of</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>The project activity consists of a new grid connected renewable power plant generation. Thus, condition does not apply.</p>

Applicability criteria of the methodology (ACM0002), Version 12.3.0	Criteria fulfilled	Determination by the validation team
<p>the combined power plant;</p> <ul style="list-style-type: none"> <li>The water flow between the multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity;</li> <li>The total installed capacity of the power units, which are driven using water from the reservoirs with a power density lower than 4 W/m<sup>2</sup>, is lower than 15 MW;</li> <li>The total installed capacity of the power units, which are driven using water from reservoirs with a power density lower than 4 W/m<sup>2</sup>, is less than 10% of the total installed capacity of the project activity from multiple reservoirs.</li> </ul>		
<p>The methodology is not applicable to the following:</p> <ul style="list-style-type: none"> <li>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;</li> <li>Biomass fired power plants;</li> </ul> <p>A hydropower plant that result in the creation of a new single reservoir or in the increase in an existing single reservoir where the power density of the reservoir is less than 4 W/m<sup>2</sup>.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>The project activity consists of a new grid connected renewable power plant generation. Thus, condition does not apply.</p>
<p>In the case of retrofits, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is “the continuation of the current situation, i.e. to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance”.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>The project activity consists of a new grid connected renewable power plant generation. Thus, condition does not apply.</p>

The assessment of the project's compliance with the applicability criteria of the methodology ACM0002 (Version 12.3.0) as documented in the PDD part B and annex 3, which are evaluated in detail under the validation protocol in Appendix A to this report based from the webhosted PDD.

### 3.4.2 Project Boundary:

As on-site assessment was not performed due to high criminal rate risk The geographical and physical project boundary of the project activity was determined by reviewing land contracts /22//23/ and the CRE permits /14//15/. The coordinates were correctly documented in the PDD /2/. The sources and sinks of greenhouse gas identified in the PDD are deemed to be appropriate. The coordinates were confirmed by the validation team through Google Earth.

Emissions	GHGs involved	Description
Baseline emissions	CO <sub>2</sub>	<p>Major emission source, which is emitted from the electricity generation by fossil fuel-fired dominated power plants connected to national interconnected grid.</p> <p>The Mexican system is based on : thermal convetional 81% (combined cycle, steam turbine and gas turbine), and low cost –most run 19%</p>

		(Hydro and nuclear) /13/.
<b>Project emissions</b>	-	It is not planned to utilize supplementary fossil fuel during the operation phase. Project emission by the project is thus considered as zero.
<b>Leakage</b>	-	As the methodology ACM0002 (version 12.3.0) establishes, leakages emissions are equal to zero.

In summary, the project boundary was correctly identified in accordance with the methodology ACM0002 (version 12.3.0). All greenhouse gas emissions occurring within the proposed project activity boundary as a result of the implementation of the proposed CDM project activity have been appropriately addressed in the PDD.

The identified project boundary and selected sources of emissions are justified for the project activity. The validation of the project activity did not reveal other greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed project activity which are expected to contribute more than 1% of the overall expected average annual emission reduction, with respect to the methodology applied.

### 3.4.3 Baseline Identification:

The project activity is the installation of a new grid-connected renewable power plant. According to the applied methodology ACM0002 (version 12.3.0), the baseline scenario is prescribed as: "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) calculations described in the Tool to calculate the emission factor for an electricity system."

The validation team confirms that the proposed project activity meets the above requirement. Therefore, the baseline scenario as prescribed in the ACM0002 (version 12.3.0) is applicable to the proposed project activity. The validation took cognizance of § Section 7.12 of VVS (version 03.0).

The approved baseline methodology applicable to the project explicit criteria implicit criteria (e.g. available scenarios, applicability of formulas for BE/PE/LE calculations)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
PDD includes all assumptions and data used by project participants	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
All the references and documents used are relevant for establishing the baseline scenario	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
All the references and documents used are correctly quoted and conservatively interpreted in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
All relevant policies / regulations considered are listed in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
Identified potential baseline scenarios reasonably represent what would/could occur in the absence of the proposed project activity	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
The baseline scenario selection is appropriate and determined according to the methodology	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed
The approved methodology used is applicable to the identified baseline scenario	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per Section II of ACM0002 (version 12.3.0), the baseline scenario is prescribed

The approved baseline methodology has been correctly applied to identify a realistic and credible baseline scenario, and the identified baseline scenario most reasonably represents what would occur in the absence of the proposed CDM project activity.

All the assumption and data used by the project participants are listed in the PDD and/or supporting documents. All documentation relevant for establishing the baseline scenario are correctly quoted and interpreted in the PDD. Assumptions and data used in the identification of the baseline scenario are justified appropriately,

supported by evidence and can be deemed reasonable. Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD.

### 3.4.4 GHG Emission Reductions:

The GHG emissions reduction calculations are transparently documented and appropriate assumptions regarding expected amount of electricity generated have been used to forecast emission reductions. As per ACM0002 (version 12.3.0), the project proponent applies “Tool to calculate the emission factor for an electricity system” (version 2.2.1) /40/ to demonstrate the calculation of emission factor for the grid.

The validation team revised the Excel spread sheet with Emission Factor calculation and ex-ante Emission reduction calculation /17/, and found it consistent and correct. Complete assessment of the calculation is presented in this section.

According to the selected methodology ACM0002 (version 12.3.0), the emission reductions ( $ER_y$ ) generated by the project activity during the crediting period are the difference between the baseline emissions ( $BE_y$ ) and the project emissions ( $PE_y$ ). No leakage emissions are considered.

$$ER_y = BE_y - PE_y$$

Regarding the calculation of project emissions, since the project activity utilizes renewable wind source for electricity generation where no auxiliary fuels shall be used (as stated in the PDD /2/) the project emission could therefore be set at zero.

As the project emissions and leakage are zero, the baseline emissions are equal to the emission reductions due to the project activity. According to ACM0002 (version 12.3.0), the baseline emissions are demonstrated in Section B.6 of PDD and are calculated as follows:

$$BE_y = EG_{PJ,y} * EF_{grid,CM,y}$$

Where:

- $BE_y$  = Baseline emissions in year y (tCO<sub>2</sub>e in year y);
- $EG_{PJ,y}$  = Quantity of net electricity generation that is produced and fed to the grid as a result of the implementation of the CDM project activity in year y (MWh/ in the year y);
- $EF_{grid,CM,y}$  = Combined margin, CO<sub>2</sub> emissions factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (tCO<sub>2</sub>/MWh).

The project involves the installation of a new wind power project, which is defined as a Greenfield renewable energy power plant, therefore based in technical information of the project activity /11, 12/

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

- $EG_{PJ,y}$  = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh);
- $EG_{facility,y}$  = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh).

Therefore,  $EG_{facility,y}$  is equal to the net annual electricity generation to grid by the project, which is expected to be 412,349 MWh /2//12/.

$$EG_{PJ,y} = EG_{facility,y} = 412,349 \text{ MWh in the year y.}$$

The baseline emission factor ( $EF_{grid,CM,y}$ ) for the project was calculated using the “Tool to calculate the emission factor for an electricity system” (version 2.2.1) /40/, tool describes six steps in order to calculate the combined margin emission factor (CM):

$EF_{grid,CM,y}$  (CO<sub>2</sub>e Emission factor from the Mexican grid)

Step	Choice adopted in PDD	Validation comments
<b>Step 1</b>	Interconnected National Grid in Mexico (SEN) has been defined	The DNA in Mexico has not published a delineation of the project electricity system. Thus, the validation team considers reasonable to use the SEN
<b>Step 2</b>	Option I Only grid power plants are included in the calculation	The tool allows not including off-grid power plants.
<b>Step 3 OM Method</b>	(a) Simple OM  Data vintage: Ex-ante option, fixed for the entire crediting period	The validation team reviewed the Electricity Sector Prospective /13/ and the ER calculation model /17/, so it is confirmed that low-cost/must-run resources constitute less than 50% of total grid generation. Thus, the selected method is applicable.
<b>Step 4 OM Calculation</b>	Option B	The validation team reviewed the Electricity Sector Prospective /13/ and confirmed that the necessary data for options A is not available; only nuclear and renewable power generation sources are considered as low-cost/must-run units and off-grid power plants are not included in the calculation Thus, the selected option is applicable.
<b>Step 5 BM Calculation</b>	Option 1  Data vintage: Ex-ante Option  $SET_{sample} = SET_{\geq 20\%}$	The validation team reviewed the Electricity Sector Prospective /13/ and the ER calculation model /17/ so it is confirmed that the annual generation of the set used $SET_{\geq 20\%}$ is larger than $SET_{5-units}$ Thus, the selected option is applicable.
<b>Step 6 CM Calculation</b>	$w_{OM} = 0.75$ and $w_{BM} = 0.25$	This is in line with the tool /40/.

In summary:

The EF calculated was 0.592 tCO<sub>2</sub>/MWh obtained from the data publicly available at the moment of commencement of validation; thus the applied value is the most conservative one. See details below:

- To calculate Simple Operating Margin emission factor from the Mexican grid, information from years 2007, 2008, 2009 was used. In Mexico, data from previous years is published at the end of the year. In the specific case of this project, information from 2009 was published at the end of 2010. At the moment of the elaboration of this report, most updated information available is from 2009. Please take into account that the data from years 2007-2009 was available at the moment publication of the PDD (25/11/2011), thus OM calculation is based on the most recent data available at the time of submission of the CDM-PDD to the DOE, as per indicated in the used tool regarding the data vintage chosen: ex-ante fixed value during the crediting period.  $EF_{grid,OM,y} = 0.662$  tCO<sub>2</sub>e/MWh



- To calculate Built Margin emission factor from the Mexican grid, the set of power capacity additions in the electricity system that comprise 20% of the system generation and have built most recently is taken. The value of BM is calculated ex-ante for the first crediting period based on the most recent information available on units already built at the time CDM-PDD submission to the DOE.  $EF_{grid,BM,y} = 0.379 \text{ tCO}_2\text{e/MWh}$
- To calculate the Combined Margin emission factor from the Mexican grid, a weighted average default value of 75% was taken for operating margin and 25% for built margin as required by the tool for this type of projects. This way  $EF_{grid,CM,y} = 0.592 \text{ tCO}_2\text{e/MWh}$ .

Therefore, the validation team considers that the “Tool to calculate the emission factor for an electricity system” has been correctly applied.

In summary, the calculation of emission reductions was correctly demonstrated by the PP according to the methodology ACM0002 (version 12.30) and its tool Tool to calculate the emission factor for an electricity system”, (version 02.2.1). The table below summaries validation team’s determination of emission reduction:

All assumptions made for estimating GHG are listed in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per PDD Section B.6., assumptions were made for ex-ante GHG emission reductions.
All data used by project participants are listed in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	All data such as GHG emission, local power generation used by the PPs are listed in the PDD
Their references and sources are also listed in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Data provided Ministry of Energy /13/ is listed in the PDD.
Formulas, parameters, values are complete, accurate, transparent and conservative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The validation team checked the reference information and confirms that the formulas, parameters, values applied in the PDD are complete, accurate, transparent and conservative.
All the references and documents used are correctly quoted and conservatively interpreted in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The validation team checked the provided references and documents, and confirms that these are correctly quoted and conservatively interpreted in the PDD.
Methodology has been applied correctly to calculate project emissions, baseline emissions, leakage emissions and emission reductions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The ACM0002 (version 12.3.0) and the methodological tool, “Tool to calculate the emission factor for an electricity system” (version 02.2.1) are applied correctly to calculate project emissions, baseline emissions, leakage emissions and emission reductions.
All the emissions of baseline emissions can be replicated using information provided in the PDD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The validation team checked the information provided in the PDD with the reference information, and all the emissions of baseline emissions can be replicated.

Based on the calculations and results presented in the sections above the implementation of the project activity will result in an average ex-ante estimation of emission reduction conservatively calculated to be 244,110 tCO<sub>2</sub>e per year for the selected crediting period.

All assumptions and data used by the project participants are listed in the PDD and/or supporting documents, including their references and sources. All documentation used by the project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD. All values used in the PDD are considered reasonable and conservative in the context of the proposed CDM project activity. The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. All estimates of the baseline, project and leakage emissions can be replicated using the data and parameter values provided in the PDD.

### 3.5 Additionality :

As per ACM0002 (version 12.3.0), the project applies the “Tool for demonstration and assessment of additionality” version (06.1.0) /37/ to demonstrate additionality. The next table shows the steps undertaken to assess the compliance with the mentioned tool:

Step	Adopted in the PDD	Validation Comments
Step 1. Identification of alternatives to the project activity consistent with mandatory laws and regulations.	<p>PDD describes 3 alternatives to the proposed project activities :</p> <ol style="list-style-type: none"> <li>1) The proposed project activity undertaken without being registered as a CDM project activity; a wind farm with an installed capacity of 124.20 MW with an annual production of 412,349 MWh developed without the CERs incentive,</li> <li>2) Continuation of the current situation: Ventika S.A. de C.V. does not implement the project; hence the national grid consumers will continue using the electricity from the national grid with a higher emission factor, and</li> <li>3) The same power generation through power plants from renewable sources like biomass or minihydro power plants.</li> </ol>	Alternatives considered in the PDD are realistic and credible, and fulfilled the requirements stated in the tool. Refer to section 3.5.2
Step 2. Investment analysis.	The benchmark for this Investment Analysis is project IRR, an appropriate benchmark since the alternative to the project activity is the supply of electricity from the national grid. Complete investment analysis is developed in section 3.5	The Investment Analysis has been assessed for compliance with the latest version (05) of the "Guidelines on the Assessment of Investment Analysis" /38/. Refer to section 3.5.3
Step 3. Barrier Analysis.	As indicated in the tool, this step is optional. PP decided not to include it.	Refer to section 3.5.4
Step 4. Common practice analysis.	Thought assessments provided in the PDD, project participants demonstrate that the proposed activity is not a common practice, thus the project is additional.	Common practice is analysed in section 3.5.5, demonstrating that the proposed activity is not a common practice.

### 3.5.1 CDM consideration:

Timeline	Milestone	Determination by the validation team
05/09/2011	Signature of the Usufruct Contract for the land use.	Contract of Usufruct for the land use /22/
28/09/2011	Contract with CO2 Solutions	Email confirmation of the cooperation between CO2 Solutions and CEMEX /64/
31/10/2011	Wind turbine quotation	Manufacturer quotation /54/
01/11/2011	The investment analysis done. CO2 Solutions sent the Prior Consideration of the CDM of the project Ventika Wind Farm to the UNFCCC and	Investment analysis /52/ Copy of confirmation e-mail, where the UNFCCC corroborates the reception of the Prior CDM Consideration to CO2 Solutions. Verified at



Timeline	Milestone	Determination by the validation team
	the Mexican DNA (Interministerial Commission on Climate Change)	<a href="http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html?s=20">http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html?s=20</a>
02/11/2011	The UNFCCC confirmed the reception of the Prior Consideration of the CDM	Copy of confirmation e-mail, where the UNFCCC corroborates the reception of the Prior CDM Consideration to CO2 Solutions. /42/
03/11/2011	Date that Interministerial Commission on Climate Change confirm the reception of the Prior Consideration of the CDM	Copy of confirmation e-mail, where the Interministerial Commission on Climate Change corroborates the reception of the Prior CDM Consideration to CO2 Solutions. /43/
03/11/2011	Date of the stakeholder meeting in the “Rancho Las Adjuntas”, a farm inside the property which the project activity will take place	Stakeholder participation list /31/
25/11/2011	Start of validation process of the project activity with UNFCCC	<a href="http://cdm.unfccc.int/Projects/Validation/DB/4XQJLNGXRPR9YADQGDSTEP12ML5UJH/view.html">http://cdm.unfccc.int/Projects/Validation/DB/4XQJLNGXRPR9YADQGDSTEP12ML5UJH/view.html</a>
8/12/2011	Electricity generation permit granted by the Energy Regulating Commission (CRE).	Permit of the CRE /14/
16/01/2012	Site visit for the project activity according to the procedures of UNFCCC	Memorandum with observation notes /53/
10/02/2012	Wind turbine quotation updated	Manufacturer quotation /21/
24/09/2012	Issuance of the wind study	Wind study from GL Garrad Hassan /12/
08/10/2012	Environmental permit granted by the SEMARNAT	Permit of the SEMARNAT /16/
28/02/2013	Starting date of the project activity	The starting date of the project activity is the date when the project participant will place the purchase order for the wind turbines /36/

It is TÜV Rheinland validation team opinion that the proposed CDM project activity complies with the requirements of the guidance on prior consideration of CDM (VVS section 7.12.9).

Starting date of project	Justification of and evidences (references) on the starting date of project	Date of the CDM consideration
28/02/2013	Expected date for the purchase order for the wind turbines /36/	CDM notification submitted to the UNFCCC and the DNA of Mexico on 1 November 2011 /42/ with acknowledgment received from DNA of Mexico via email on dated 3 November 2011/42/.  CDM notification received by EB on 2 November 2011 /43/.

The start date of the project activity is not fixed yet as the PP has not contracted/placed order for the equipment or construction, however an expected start date has been provided (28/02/2013) which is the expected date of placing purchase order for wind turbines/36/. The PDD was web-hosted for public comments on 25/11/2011 i.e. before the start date of the project activity. Since the start date of the project activity is after PDD was web-hosted, and the communication regarding the project is been notified to DNA and UNFCCC, as per paragraph 106/107 Section L of VVS 03.0, and EB 62 annex 13, the project participant is not required to demonstrate prior consideration of CDM, if a PDD has been published for global stakeholder consultation.. Even though the project start date is later to the PDD publication, the PP has taken a proactive measure to intimate the DNA and UNFCCC regarding the project and the same is been checked by the validation team and accepted.

The validation team confirms that the consideration of the proposed project activity as a CDM project is fully in line with the requirements of VVS Section L(9) « Assessment of prior consideration of the CDM».

### 3.5.2 Alternatives:

There are three alternatives identified in PDD which goes in line with the methodology and are considered to be complete and realistic according to the additionality tool:

1. The proposed project activity undertaken without being registered as a CDM project activity; a wind farm with an installed capacity of 124.20 MW with an annual production of 412,349 MWh developed without the CERs incentive,
2. Continuation of the current situation: Ventika S.A. de C.V. does not implement the project; hence the national grid consumers will continue using the electricity from the national grid with a higher emission factor, and
3. The same power generation through power plants from renewable sources like biomass or minihydro power plants.

#### Alternative 1:

It is claimed that “The wind farm could not be developed without the incentive of the CDM registration due to technical and economical obstacles”. This will be further discussed in section 3.5.3.

#### Alternative 2:

It was confirmed through review of the Electricity Sector Prospective /13/ in which the actual situation in Mexican grid is the continue use of fossil fuels. TUV Rheinland corroborated this information through the document issued yearly by the Mexican Secretary of Energy (SENER) in which recent years performance of the grid is described, and also predominant conditions for next years are forecasted. The last version of this document, called “Prospectiva del Sector Eléctrico 2010-2025” /13/ (figure 55) presents the forecast from 2010 to 2025 and represents the most updated public information. Based on the document, TUV Rheinland is able to confirm that the 2009 grid performance on the use of different types of fuels, which highlighted shows that electricity generation in the grid was produced by 81% fossil fuel based power plants, while renewable energies together with nuclear source represents only the 19% of the total generation. This shows that the current baseline is the continue generation of electricity by the operation of grid connected fossil fuel based power plants.

Therefore, this is a credible alternative to the project.

#### Alternative 3:

It is claimed that “Due to the size of the project activity, hydropower plants could only be a viable alternative if there was either a group of minihydro power plants or at least one large hydropower plant, moreover, hydro is unlikely to happen because the installed capacity expected for 2014 (starting year of the project activity) in the zone will be the same at the moment of the project activity (Source: “*Electricity Sector Outlook 2010-2025, Prospektiva del sector eléctrico 2010-2025*”). As per the prospective no biomass power plants are included in the forecasting for the installed capacity for 2014 or later, also the technological and economical barriers related to biomass power plants (supply infrastructure, biomass management and preparation, high transportation costs, etc) would prevent the implementation of this type of project unless an additional incentive (i.e. the CDM registration) is available, therefore a biomass power plant is not a likely baseline scenario.” By reviewing the geographic coordinates of the project activity on Google Earth, it is confirmed that at the project site location it is not possible to build hydroelectric plants because no water falls exist and no hydroelectric plants will be built in the Northeast of the country as forecasted in table 40 in the Electricity Sector Outlook /13/. With reference to developing biomass power plants, there are economic and technological barriers which can be confirmed by reviewing that no biomass power plants are included in the forecast of the Electricity Sector Outlook /13/. Thus, the elimination of alternative 3 is accepted by the validation team.

The only remaining alternative is the continuation of the current situation (Alternative 2), where electricity is supplied from the grid, and it is therefore concluded, following sub-step 1(b) that this alternative complies with applicable laws and in line national requirements.

TÜV Rheinland validation team considers the selected baseline is credible and complete.

### 3.5.3 Investment analysis:

The Investment Analysis has been assessed for compliance with the latest version (05) of the “Guidance on the Assessment of Investment Analysis”/38/.

#### 3.5.3.1 Choice of approach:

It is noted in the PDD that, by referring to “Guidelines on the Assessment of Investment Analysis” (version 05.0), benchmark analysis has been selected for the project financial assessment. The selection of “benchmark analysis” is justified in considering that, other than CDM revenue, the proposed project would generate revenue stream through sale of electricity to the national interconnected system. Benchmark analysis goes in line with the guidelines, which on paragraph 19 states: “If the alternative to the project activity is the supply of electricity from a grid this is not to be considered an investment comparison and a benchmark approach is considered appropriate”, furthermore, it is stated that “the benchmark approach is therefore suited to circumstances where the baseline does not require investment or is outside the direct control of the project developer, where the choice of the developer is to invest or not to invest”, thus choice of Benchmark analysis is appropriate to the project activity.

#### Benchmark selection:

As per paragraph 13 and 16 of the guidelines, benchmark proposed is based on parameters that are standard in the market. Parameters included are: Government bond rates for 20 years from Mexican Central Bank (because the project has an operational lifetime of 20 years) /44/and Country Risk premium /45/. Both sources are public available and considered by the validation team as standard and recognize in the market. Government bond is set in 7.89% and Country Risk Premium as 5.77%, thus benchmark for the project activity is set in 13.66% as result of 7.89% plus 5.77%, which it is in line with the Tool for the demonstration and assessment of additionality version 06.1.0 /37/ which has been derived using publicly available data that are based on standard market suitable in the context of project activity being implemented in Mexico, in accordance with the ‘Guidelines on the assessment of Investment analysis’, version 05/38/.

A benchmark analysis has been done by comparing pre-tax benchmark to the pre-tax project IRR, which is one of the most commonly used financial indicator used to decide on an investment. The validation team has cross checked the information provided by the PP /44//45/ and the financial model /18/; thus it is confirmed the suitability of this benchmark.

Parameter:	Pre-tax IRR benchmark
Value applied for the IRR calculation:	13.66%
Source of the value:	This benchmark was taken from source /44/ and /45/
Consistency of the value:	Should be applied when using Benchmark Analysis, and is appropriate if the alternative to the project activity is the supply of electricity from a grid.
Validity of input value at the time of investment decision making:	The values are valid at the time of investment decision
Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and	Government bond rate was verified by consulting the Mexico Central Bank website ( <a href="http://www.banxico.org.mx/SieInternet/consultarDirectorioInternetActi">http://www.banxico.org.mx/SieInternet/consultarDirectorioInternetActi</a>

comparison as applicable)	<p><a href="http://on.do?accion=consultarCuadro&amp;idCuadro=CF107&amp;sector=22&amp;locale=es">on.do?accion=consultarCuadro&amp;idCuadro=CF107&amp;sector=22&amp;locale=es</a>)</p> <p>The benchmark is compared to other CDM project:</p> <table border="1" data-bbox="651 347 1497 526"> <thead> <tr> <th>CDM Project</th><th>Benchmark</th></tr> </thead> <tbody> <tr> <td>6216</td><td>10.81%</td></tr> <tr> <td>4634</td><td>11.41%</td></tr> <tr> <td>4361</td><td>14.23%</td></tr> <tr> <td>2390</td><td>9.2%</td></tr> </tbody> </table> <p>In conclusion, the benchmark is within the range, therefore the benchmark value is suitable and reasonable for the project activity</p>	CDM Project	Benchmark	6216	10.81%	4634	11.41%	4361	14.23%	2390	9.2%
CDM Project	Benchmark										
6216	10.81%										
4634	11.41%										
4361	14.23%										
2390	9.2%										

### Input parameters:

Values in the investment analysis /52/ are valid at the moment of the decision to go-ahead with the project implementation; this is on 01/11/2011 Sources of values like pricing quotations and other economic assumptions were valid at this moment

Parameter:	Investment										
Value applied for the IRR calculation:	USD 335,953,103										
Source of the value:	Wind turbine manufacturer and engineering companies /54/ – /60/										
Consistency of the value:	The value is consistent between PDD /2/ and financial model /52/										
Validity of input value at the time of investment decision making:	The values included in the investment were obtained at the time of the investment decision on 01/11/2011. The validation team accepts the validity of investment value										
Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and comparison as applicable)	<p>The project activity has an investment of 2,657 k USD/MW and Comparing with other CDM projects:</p> <table border="1" data-bbox="726 1574 1497 1753"> <thead> <tr> <th>CDM Project</th><th>Investment (k USD/MW)</th></tr> </thead> <tbody> <tr> <td>6216</td><td>2,016</td></tr> <tr> <td>4634</td><td>2,077</td></tr> <tr> <td>4361</td><td>2,043</td></tr> <tr> <td>2390</td><td>2,458</td></tr> </tbody> </table> <p>The Investment cost is slightly higher compared to CDM projects because the capacity per turbine is 1.6 MW and several wind turbines are required; therefore the cost per MW is high; then, during the course of validation PP has changed the project technology with an investment cost value of USD 278,362, 600 /19 – 26/ (2,241 USD/MW) where installed capacity is 2.3 MW per turbine and the cost per MW is lower compared to the input value at the investment decision</p> <p>In conclusion, the validation team confirms that investment</p>	CDM Project	Investment (k USD/MW)	6216	2,016	4634	2,077	4361	2,043	2390	2,458
CDM Project	Investment (k USD/MW)										
6216	2,016										
4634	2,077										
4361	2,043										
2390	2,458										

	value is reasonable and suitable for the project activity.
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Parameter:	Average annual O&M costs										
Value applied for the IRR calculation:	USD 10,293,983										
Source of the value:	Wind turbine manufacturer /61/										
Consistency of the value:	The value is consistent between PDD /2/ and financial model /52/										
Validity of input value at the time of investment decision making:	The values included in the O&M cost was obtained at the time of the investment decision on 01/11/2011 The validation team accepts the validity of O&M cost value										
Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and comparison as applicable)	<p>The project activity has an investment of 20.66 USD/MWh and Comparing with other CDM projects:</p> <table border="1"> <thead> <tr> <th>CDM Project</th><th>O&amp;M cost ( USD/MWh)</th></tr> </thead> <tbody> <tr> <td>6216</td><td>25.95</td></tr> <tr> <td>4634</td><td>16.34</td></tr> <tr> <td>4361</td><td>38.35</td></tr> <tr> <td>2390</td><td>23.16</td></tr> </tbody> </table> <p>In conclusion, the validation team confirms that O&amp;M cost value is reasonable and suitable for the project activity.</p>	CDM Project	O&M cost ( USD/MWh)	6216	25.95	4634	16.34	4361	38.35	2390	23.16
CDM Project	O&M cost ( USD/MWh)										
6216	25.95										
4634	16.34										
4361	38.35										
2390	23.16										

Parameter:	Electricity Tariff		
Value applied for the IRR calculation:	78.64 USD/MWh		
Source of the value:	CFE (utility company) /27/		
Consistency of the value:	The value is consistent between PDD /2/ and financial model /52/		
Validity of input value at the time of investment decision making:	The value included in the electricity tariff is valid at the time obtained at the time of the investment decision on 01/11/2011.The validation team accepts the validity of the electricity tariff		
Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and comparison as applicable)	<p>The project activity has an investment of 78.64 USD/MWh and Comparing with other CDM projects:</p> <table border="1"> <thead> <tr> <th>CDM Project</th><th>Electricity tariff ( USD/MWh)</th></tr> </thead> <tbody> </tbody> </table>	CDM Project	Electricity tariff ( USD/MWh)
CDM Project	Electricity tariff ( USD/MWh)		

	6216	98.50
	4634	68.00
	4361	67.10
	2390	80.13
In conclusion, the validation team confirms electricity tariff is reasonable and suitable for the project activity.		

Parameter:	Exchange Rate
Value applied for the IRR calculation:	12.26 MXP/USD
Source of the value:	<a href="http://www.x-rates.com/d/MXN/USD/hist2011.html">http://www.x-rates.com/d/MXN/USD/hist2011.html</a>
Consistency of the value:	The value is consistent between PDD /2/ and financial model /52/
Validity of input value at the time of investment decision making:	The values included in the investment are valid time obtained at the time of the investment decision on 01/11/2011/12/. The validation team accepts the validity of exchange rate
Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and comparison as applicable)	<p>The exchange rate value is cross checked with the Mexico Central Bank value  <a href="http://www.banxico.org.mx/SieInternet/consultarDirectorioIntern etAction.do?accion=consultarCuadro&amp;idCuadro=CF107&amp;sector=22&amp;locale=es">http://www.banxico.org.mx/SieInternet/consultarDirectorioIntern etAction.do?accion=consultarCuadro&amp;idCuadro=CF107&amp;sector=22&amp;locale=es</a></p> <p>In conclusion, the validation team confirms exchange rate is reasonable and suitable for the project activity.</p>

Parameter:	Inflation Rate
Value applied for the IRR calculation:	3.38%
Source of the value:	<a href="http://www.banxico.org.mx/dyn/portal-inflacion/index.html">http://www.banxico.org.mx/dyn/portal-inflacion/index.html</a>
Consistency of the value:	The value is consistent between PDD /2/ and financial model /52/
Validity of input value at the time of investment decision making:	The values included in the investment are valid at the obtained at the time of the investment decision on 01/11/2011. The validation team accepts the validity of exchange rate



Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and comparison as applicable)	<p>The validation team verified the website link for the inflation rate and confirms that inflation rate addressed in the PDD is the average inflation rate published from Mexican Central Bank.</p> <p>In conclusion, the validation team confirms inflation rate is reasonable and suitable for the project activity.</p>
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Parameter:	Plant load factor										
Value applied for the IRR calculation:	45% , updated to 37.9%										
Source of the value:	GL Garrad Hassan (2012):Preliminary Energy Yield Estimate for the Ventika I and II Wind Farms										
Consistency of the value:	The value is consistent between PDD /2/ and financial model /18//52/										
Validity of input value at the time of investment decision making:	The values included in the investment was available at the time of the investment decision was 45% but was not based on third party study and hence has been updated based on a wind study carried out 24/9/2012. The validation team accepts the validity of investment value										
Justification by the validation team according to §120, 121 of VVS version (03.0) ( cross checking and comparison as applicable)	<p>The plant load factor is sourced from ‘GL Garrad Hassan (2012) : Preliminary Energy Yield Estimate for the Ventika I and II Wind Farms’ /12/.</p> <p>Therefore, it is opinion of validation team that the plant load factor (PLF) of the project activity (37.9%) meets the requirement of paragraph 3 (b) of Guidelines for the reporting and validation of plant load factors, version01 /65/ where it is determined by a third party contracted by a project participant. A comparison of plant load factors is checked against other CDM projects:</p> <table border="1"> <thead> <tr> <th>CDM Project</th><th>PLF / %</th></tr> </thead> <tbody> <tr> <td>6216</td><td>47.24%</td></tr> <tr> <td>4634</td><td>46.41%</td></tr> <tr> <td>4361</td><td>49.60%</td></tr> <tr> <td>2390</td><td>48.85%</td></tr> </tbody> </table> <p>A comparison of plant load factors is checked against other CDM projects:</p> <p>In conclusion, the validation team confirms that PLF value is reasonable and suitable for the project activity.</p>	CDM Project	PLF / %	6216	47.24%	4634	46.41%	4361	49.60%	2390	48.85%
CDM Project	PLF / %										
6216	47.24%										
4634	46.41%										
4361	49.60%										
2390	48.85%										

### Financial calculation and conclusion:

The financial analysis is in accordance with the “Tool for demonstration and assessment of additionality” version 06.1.0” and the “Guidelines on the assessment of investment analysis” version 05. All input parameters used in the IRR calculation were valid at the time of investment decision making. The validation team confirms that the project IRR pre-tax without any CDM revenue works out to be 11.86% which is below benchmark of 13.66%. It is clearly demonstrated that the proposed project activity without CER revenues is financially unattractive. The validation took cognizance of § 119 of VVS (version 03.0).

During the validation, there were revisions to the input values in the investment analysis because there were changes in the project design and technology; therefore the Investment value was updated to be USD 278,362, 600 /19 – 26/ and the O&M cost was updated to be USD 11, 323, 983 /21/ the rest of economic assumptions remained equal. In conclusion; with the revised input values the IRR, and is still 10.88% which is below the considered benchmark. Thus the validation team concluded that the project is still additional.

### 3.5.3.2 Sensitivity analysis:

According to the “Guidelines on the assessment of investment analysis” (version 05), only variables including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues should be subjected to reasonable variation and the results of this variation should be presented in the PDD and be reproducible in the associated spreadsheets. The validation team thus confirms that the following parameters meet the requirement and these parameters have been subjected to variations in the range of +10% and -10% in the PDD.

Input Values	10%	5%	0%	-5%	-10%
Investment costs	10.56%	11.18%	11.86%	12.59%	13.38%
Electricity tariff	13.51%	12.69%	11.86%	11.00%	10.12%
Annual O&M Cost	11.64%	11.75%	11.86%	11.97%	12.08%
Transmission Cost	11.80%	11.83%	11.86%	11.89%	11.91%
Plant load factor	13.46%	12.67%	11.86%	11.03%	10.18%

With the changes in the project design and the revised input values, the sensitivity analysis is as follows/18/.

Input Values	10%	5%	0%	-5%	-10%
Investment costs	9.63%	10.23%	10.88%	11.58%	12.34%
Electricity tariff	11.98%	11.15%	10.88%	9.44%	8.54%
Annual O&M Cost	10.56%	10.72%	10.88%	11.04%	11.20%
Transmission Cost	10.82%	10.85%	10.88%	10.91%	10.94%
Plant load factor	12.52%	11.71%	10.88%	10.03%	9.15%

The validation took cognizance of § 120 (e) of VVS (version 03.0). The table below summaries the situation where the IRR would reach the benchmark with the input values at the investment decision date:

Input value	Variation	Validation team's opinion
Investment cost	If the investment cost decreases by 11.65%, the IRR reaches the benchmark.	PP has submitted all the quotes properly supported; and it is probable an investment increase because project activity will take place in 2013 and the prices will increase at least the inflation.
O&M cost	If the O&M cost decreases by 64.30%, the IRR reaches the benchmark.	PP clarified that for the case of the land rent cost there is a signed contract /22 - 23/, in the case of O&M and transmission costs depends directly to the number of turbines and the generation, respectively and they are already established.
Electricity tariff	If the electricity tariff increases by 10.95 %, the IRR reaches the benchmark.	This is unlikely to happen as the validation team reviewed the variation of electricity tariff in Ministry of Energy Balance of Energy pg 62 /46/ and for large industries (main energy offtakers are large industries as stated in the CRE permit /14/) the variation was 6.21%
Transmission Cost	If the transmission cost to the grid decreases by 337%, the	This is unlikely to happen as transmission cost is fixed by the utility company and normally tend to



Input value	Variation	Validation team's opinion
	IRR crosses the benchmark.	increase.
Plant load factor	If the plant load factor increases by 11.30% (50.09% % of capacity factor), the IRR crosses the benchmark	This is not probably to happen because this is a high capacity factor even for the zones as the state of Oaxaca which has the higher potential of wind in the country <sup>2</sup> .

The validation team thus confirms that the sensitivity analysis is in accordance with the “Tool for demonstration and assessment of additionality” version 06.1.0 and “Guidelines on the assessment of investment analysis” version 05. All input parameters used for sensitive analysis constitute more than 20% of either total project costs or total project revenues. The justifications provided by the PP with the variations of these parameters are been analyzed, clarified and accepted by the DOE. Even with the changes in the project design, the sensitivity analysis confirms that project is still below the benchmark and still additional.

### 3.5.4 Barrier analysis

This step was not applied

### 3.5.5 Common practice analysis

#### 1. Assessment of criteria

No.	Criteria selected	Determination by the validation team	Criteria justified
1	Host Country: Mexico	As per Guideline on common practice 2.0, the host country is the applicable geographical area as default	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Generation projects installed capacity between 62.10 – 186.30 MW	The proposed project activity has an installed capacity of 124.20MW. The selected range of installed capacity for the discussion is between 62.10 -186.30 as it is the applicable output range (+/- 50%) according to the Guideline on Common Practice V.2.0	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Commercial operation date	Projects which started commercial operation before the PDD is published for global stakeholders on 25/11/2011	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## II. Identification of similar projects

There are 22 similar projects with CDM and non-CDM status as stated in the PDD /2/ in the host country:

The validation team has cross-checked the information given by the PP with the Energy Sector Outlook /13/ and the CRE website (<http://cre.gob.mx/articulo.aspx?id=171>) and confirms that identification of similar projects is real and complete.

Removing the projects identified as CDM (registered or under validation), the similar projects are ( $N_{all}$ ) equal to 15

## III. Analysis of essential distinctions

From the mentioned project numbers above, those that apply different technology from the proposed project activity ( $N_{diff}$ ) are equal to 14 and it is confirmed by reviewing documents /13/ and CRE website that the  $N_{diff}$  value is appropriate

## IV. Conclusion

In summary, the validation team confirms that the share of similar projects using a measure or technology used in the proposed project activity that deliver the same output or capacity as the proposed project activity ( $F$ ) is calculated as  $F = 1 - N_{diff}/N_{all}$

As stated above,  $F = 1 - 14/15$ , then it is equal to 0.067; and  $N_{all} - N_{diff}$  is equal to 1.

<sup>2</sup> [http://www.wilsoncenter.org/sites/default/files/Border\\_Wind\\_Energy\\_Wood\\_0.pdf](http://www.wilsoncenter.org/sites/default/files/Border_Wind_Energy_Wood_0.pdf)

Finally,  $F$  is not greater than 0.2 and  $N_{all}-N_{diff}$  is not greater than 3, so finally validation team concludes that proposed project activity is not common practice in the host country

### 3.5.6 Conclusion of assessment of Additionality

The CDM was seriously considered by the PP. The evidences were transparently reviewed by the validation team and considered to be effective. Investment analysis and sensitivity analysis clearly demonstrate that the proposed project activity is financially unattractive. Common practice analysis was carried out showing that the proposed project activity is not common practice in the host country. Therefore, the proposed project activity is not business-as-usual, i.e. the proposed project activity is additional.

## 3.6 Monitoring

The project proponent applies the approved consolidated monitoring methodology ACM0002 (Version 12.3.0) – “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” for the project activity. Applicability criteria of the monitoring methodology to the project activity are met.

The project activity will not generate any project emission or leakage in accordance with ACM0002 (Detailed discussion on calculation of project emission and leakage is addressed in Section 3.4. above). Therefore monitoring of project emission and leakage is not required.

The monitoring will involve measuring the electricity generated by the project and electricity supply from the power grid to the project. The estimated CM emission factor is determined ex-ante based on the most recent information available during the PDD submission for DOE for validation. According to the PDD, CM emission factor during the crediting period is fixed ex-ante, practice which goes on line with the methodology and calculation tool. Monitoring of GHG emission reduction is based on measuring the net quantity of electricity supplied to the grid, which is transparently presented in section B.7 of PDD. The PDD has made provisions in B.7 for full details in monitoring the GHG emissions reduction due to the project activity.

The project monitoring plan is in compliance with the monitoring methodology ACM0002 (Version 12.3.0). It is DOE’s opinion, that the project participants are able to implement the monitoring plan.

### 3.6.1 Parameters determined ex-ante

Parameter	Value / Unit Applied	Validation means / Conclusion
Parameters from the methodology ACM0002, v.12.3.0		
<b>EF<sub>grid,CM,y</sub></b> Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system”	0.592 tCO <sub>2</sub> /MWh	As per “Tool to calculate the emission factor for an electricity system” v.2.2.1

Parameter	Value / Unit Applied			Validation means / Conclusion
<b>FC<sub>i,y</sub></b> Amount of fossil fuel type <i>i</i> consumed in the project electricity system in year <i>y</i>	Year 2007 = 1,652,355 TJ Year 2008 = 1,717,099 TJ Year 2009 = 1,830,492 TJ			Cross checked with Energy Sector Outlook /13/
<b>NCV<sub>i,y</sub></b> Net calorific value (energy content) of fossil fuel type <i>i</i> in year <i>y</i>	Fuel Oil	41.12	GJ/m <sup>3</sup>	Cross Checked with National Energy Balance 2009 /46/
	Natural Gas	0.040	GJ/m <sup>3</sup>	
	Diesel	35.802	GJ/m <sup>3</sup>	
	Coal (national)	19.405	GJ/Ton	
	Coal (imported)	25.284	GJ/Ton	
<b>EF<sub>CO<sub>2</sub>,i,y</sub></b> Net calorific value of methane at reference conditions (tCO <sub>2</sub> /TJ)	75.5 tCO <sub>2</sub> /TJ for Fuel Oil 54.3 tCO <sub>2</sub> /TJ for Natural Gas 72.6 tCO <sub>2</sub> /TJ for Diesel 87.3 tCO <sub>2</sub> /TJ for Coal			Cross checked with IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories
<b>EG<sub>y</sub></b> Net electricity generated and delivered to the grid by all power sources serving the system, not including low-cost/must-run power plants/units, in year <i>y</i> (MWh)	211,454,000 in year 2007 215,276,000 in year 2008 214,488,000 in year 2009			Cross checked with Energy Sector Outlook /13/
<b>EG<sub>m,y</sub></b> Net electricity generated by power plant <i>m</i> in year <i>y</i>	Values provided in Appendix 4 of the PDD /2/			Cross checked with Energy Sector Outlook /11/

The validation team confirms that all relevant parameters have been sufficiently considered and the values of the parameters are real, measureable and conservative.

### 3.6.2 Parameters monitored ex-post

According to the approved methodology ACM0002 “Consolidated Baseline methodology for grid-connected electricity generation from renewable sources” version 12.3.0, the following parameters will be monitored:

Sl. No.	Parameters	Description
1	EG <sub>facility,y</sub>	Quantity of net electricity generation supplied by the project plant/unit to the grid in year <i>y</i> . Continuous measurements and monthly recording. 2 bidirectional electricity meters will be installed outside the wind farm at the interconnection point, one as main and one as back up. Accuracy class 0.2% Calibration will be done annually according to Mexican law and/or PPA

In summary, the validation team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology of ACM0002 (version 12.3.0). During the on-site assessment, the validation team interviewed the PP that the monitoring arrangements described in the monitoring plan are feasible within the project design. The emission reductions resulting from the proposed CDM project activity can be reported ex post and verified.

### 3.6.3 Management system and quality assurance

Purpose of the monitoring plan, as described in the latest version of the PDD, is to ensure quality and transparency in terms of recording, storing and processing data joint with to establish the best operation and monitoring practices in the project activity.

Different procedures will be developed by the project participants, i.e:

- ✓ Procedure for quality assurance for internal and external data acquisition.
- ✓ Procedure for project performance review before submitted for verification.
- ✓ Procedure for storing and maintain records (paper and electronic information).
- ✓ Identification of training needs to enable operational staff to meet the needs of the project and this monitoring plan.
- ✓ Procedure for corrective actions to improve future monitoring and reporting.

Roles and responsibilities of calibration, maintenance, records, download and process of data are described in section B.7 and Appendix 5 of the last version of the PDD /2/.

Data measurement and responsibility of monitoring the amount of electricity exported/imported will be taken by Ventika S.A de C.V. All data will be kept until two years of the end of the whole crediting period.

Flow chat, for CDM purposes is constituted by:

- O&M wind farm,
- Information Advisor
- CDM team

The O&M Wind Farm staff will enable to monitor record, report and archive the readings taken from the electricity meters. Information will be provided to the Information advisor, who will be responsible to check authorize and forward the monitoring data to the CDM team, who will be responsible of reviewing the emission reductions and elaborating the Monitoring Report.

Furthermore, as stated in the latest version of the PDD, PP agreed the next steps in order to guarantee a good level of QC and QA:

#### 1. *Monitoring equipment*

- 1.1. Monitoring equipment shall be set up under the Mexican Law (Federal Law about Metrology and Standardization “Ley Federal sobre Metrología y Normalización”).
- 1.2. Monitoring equipment shall be authorized through a certificated formal process.
- 1.3. After set up monitoring equipment shall be calibrated annually and checked periodically by CFE for accuracy.

#### 2. *Monitoring of amount of electricity.*

- 2.1. The amount of net electricity transmitted to the grid shall be measured automatically by the established equipment. The measured variables are simultaneously transferred to the Ventika wind farm central control system.
- 2.2. The measured amount of net electricity shall be collected monthly and shall be archived in electronic way.

2.3. The net electricity shall be checked with the energy bill.

3. *Using internal controls:*

- Measuring of energy delivered by the wind farm will be carried out according to the CFE procedures.
- The power meters (main and backup power meters) will comply with CFE technical requirements.
- Preventive and corrective maintenance of the measurement system shall be performed.

4. *Undertake data validations:*

- Cross check will be conducted between the data of Ventika Wind Farm and the data registered by the CFE.
- In case the main meter fails, backup meter readings will be used. After the main meter is repaired, the main meter measurements will be used again.
- In the case of a malfunction of both meters the information of the energy generated will be obtained from the CFE.
- Information registered will be archived and compared every month with data of the CFE. In case of identifying differences exceeding 0.2%, VentikaWind Farm will be reviewed and the lowest value will be used to estimate emission reductions as a conservative approach.

As per all assumptions written above, the validation team confirms:

- The completeness of monitoring parameters.
- The existence and appropriateness of QA/QC procedures necessary to ensure robust and conservative monitoring of all monitoring parameters.

It is concluded that the PP has developed a strong and reliable management control system and quality assurance

### 3.7 Sustainable Development

The host party's DNA confirmed the contribution of the project to the sustainable development /3/.

### 3.8 Environmental Impacts

Based on the provisions of the Regulations of the General Law of Ecological Equilibrium and Environmental Protection /49/ (in Spanish Reglamento de la Ley General de Equilibrio Ecológico y Protección al ambiente - LGEEPA), issued by the Ministry of Environment and Natural Resources (SEMARNAT), Section V, Article 28, item I, it is required the authorization of the EIA of works or activities involving electrical industry, including a wind farm construction; Ventika S.A de C.V has performed an EIA which was submitted to SEMARNAT whose resolution and authorization /16/ was submitted and reviewed by the validation team.

The PDD contains a comprehensive description of the project activity's environmental impacts, which are mainly positive. The validation team assessed this description by reviewing an internal assessment of environmental impacts, performed by the project participants'. No significant negative environmental impacts were identified and no transboundary impacts from the development and implementation of the project activity have been identified /2/

The validation team concludes that the environmental impact by the project activity is been assessed by the project proponent and the same is stated in the PDD.

### 3.9 Local Stakeholder Consultation

The validation team confirmed that local stakeholders were formally invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website; this was confirmed by the list of participants provided by the project participant and the surveys done to the stakeholders at the site.

The validation team took the following steps to assess the adequacy of the local stakeholders' consultation:

- Review of the stakeholders list to assure that the invited stakeholders were relevant and a representative sample /31/
- Review of other relevant documents from the stakeholders meeting, the probe of receipt of the invitation letter from the invitees, pictures taken in the meeting, surveys and the presentation slides with information provided to the invitees. /29 - 33/

TUV Rheinland considers the local stakeholder consultation carried out adequately. The local stakeholder consultation was carried on 03/11/2011 at “Rancho Las Adjuntas”, General Bravo, state of Nuevo Leon, Mexico. The stakeholders were invited by the means of personal invitations /33/. The stakeholders meeting have resulted no comments. The project participant have taken due account of all comments received by the stakeholders /33/ and its summary is described in the PDD adequately.

### **3.10 Comments by Parties, Stakeholders and NGOs**

The PDD version 01 of “07/11/2011” was made publicly available for global stakeholder consultation on (<http://cdm.unfccc.int/Projects/Validation/DB/4XQJLNGXRPR9YADQGDSTEP12ML5UJH/view.html>) from “25/11/2011” to “24/12/2011” in order to invite comments from public stakeholders. The PDD was published prior to commencement of the validation and the validation team has taken a due note on the outcome of its result.

No public comments have been received during that period.

Appendix A

CDM Validation Protocol

Ventika Wind Farm

Mexico

Report No. 01 997 9105067350

<b>Table 1: Validation requirements</b> (based on § 37 of the CDM Modalities and Procedures and on CDM Validation and Verification Standard version 03.0)					
Checklist question	Ref.	MoV3	Findings, comments, references, data sources	Draft conclusion	Final conclusion
<b>1. Approval(VVS Section 7.6, 7.7, 7.8 &amp; 7.9)</b>					
1.8 Have Letters of Approval have been provided from all involved Parties?	/3/	DR	<b>CAR 1</b> As per VVS 3.0 paragraph 38 the PP shall be submitted the LoAs of each Party indicated as being involved in the proposed CDM project activity in section A.3.	<del>CAR 1</del>	OK
1.2 Are all Parties, who issued the LoA, Parties to the Kyoto Protocol and are this, stated in the LoA?	/3/	DR	Mexico is a Party to the Kyoto Protocol, signed on 09/06/1998 and ratified on 07/09/2000. Nevertheless, please refer to CAR1	OK	OK
1.3 Is every LoA from the Parties involved issued by an organization listed as Designated National Authority (DNA) on the UNFCCC web site?	/3/	DR	Mexico's DNA is: Comisión Intersecretarial de Cambio Climático  UK's DNA is: Environment Agency	OK	OK
1.4 Is the participation in the CDM project activity voluntary and is this stated in all LoAs?	/3/	DR	Please refer to CAR 1	<del>CAR 1</del>	OK
1.5 Is the LoA unconditional with respect to 1.2 to 1.4?	/3/	DR	Please refer to CAR 1	<del>CAR 1</del>	OK
1.6 Is the title of the CDM project activity as given in the PDD identical with the title given in all LoAs and Modalities of Communication?	/3/	DR	Please refer to CAR 1	<del>CAR 1</del>	OK

<sup>3</sup> MoV = Means of Validation, DR = Document Review, I = Interview, www = internet search.



1.7 If any of provided LoAs contains additional specification of the CDM project activity (PDD version number, validation report version number, amount of ER, etc.) are those specifications valid and consistent with other documents?	/3/	DR	Please refer to CAR 1	<del>CAR-1</del>	OK
1.8 Does the project activity involve any public funding from Annex I Parties? If yes, has Annex I Party provided a written confirmation that the use of such funding does not lead to the diversion of the official development assistance.	/3/	DR	Project activity does not involve any public funding from Annex I.	OK	OK
1.9 Is the MOC provided in line with the latest template available from the UNFCCC	/5/	DR	CAR 2: The Letter MoC shall be submitted to the DOE.	<del>CAR-2</del>	OK
1.10 Is MOC correctly filled and signed by authorized signatories identifying the focal point?	/5/	DR	Please refer to CAR 2	<del>CAR-2</del>	OK
1.11 Is the written confirmation obtained by the PP's stating the authorization, specimen signatures and personal details are valid and accurate?	/5/	DR	Please refer to CAR 2	<del>CAR-2</del>	OK
<b>2. Participation (VVS Section 7.6, 7.7 &amp; 7.8)</b>					
2.1 Are the Parties and project participants (PP) listed in the section A.3 of the PDD correctly and is this information consistent with the contact details provided in Annex 1 of the PDD?	/2/	DR	<b>CAR 3:</b> Parties and project participants (PP) listed in the section A.4 shall be consistent with the appendix 1 of the PDD.	<del>CAR-3</del>	OK
2.2 Has every Party involved approved the participation of each corresponding PP, either by	/2/	DR	Please refer to CAR1	<del>CAR-1</del>	OK
2.3 Do all participating Parties fulfill the participation requirements as follows: a) Party has ratified the Kyoto Protocol b) Party has designated a Designated National Authority c) The assigned amount has been determined	/2/	DR	a) Please refer to 1.2 b) Please refer to 1.3 c) N/A	<del>CAR-1</del>	OK

2.4 Do the letters of approval meet the following requirements? a) LoA confirms that Party has ratified the Kyoto Protocol b) LoA confirms that participation is voluntary c) The LoA confirms that the project contributes to the sustainable development of the Mexico? d) The LoA refers to the precise project activity title in the PDD	/2/	DR	Please refer to CAR1	<del>CAR-1</del>	OK
<b>3. Project Design Document (VVS Section 7.10)</b>					
3.1 Is the PDD presented for validation based on the latest template available at the UNFCCC website?	/2/		<b>CAR 4:</b> PDD used by project participant is not the latest template available at the UNFCCC, due to the following issues:  a) Project participant edited the main header of the PDD template changing the version number and the issuance date of the template by the version number and issuance date of project participant PDD. b) Project participant used a table in section B.6.2 that does not match with the table in the PDD template. c) Project participant used a table in section B.7.1 that does not match with the table in the PDD template. d) The geographic coordinates shall presented as per UNFCCC format, in the decimal format with +/- sign only and should have a precision of 4 (four) decimals, such information shall be stated for each Wind turbines and the monitoring towers for the wind assessment.	<del>CAR-4</del>	OK
3.2 Has the PDD been established in accordance with the CDM requirements for completing PDDs issued by the CDM EB?	/2/		Please refer to CAR 3.	<del>CAR-3</del>	OK

<b>4. Project Description (VVS Section 7.11)</b>					
<p>4.1 Does the PDD contain a description, which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?</p> <p>4.1b) Is the description (incl. any process flow-charts, Spreadsheets etc.) complete, coherent and consistent with the provisions of the monitoring plan?</p> <p>4.1c) Is the project's location clearly defined?</p>	/2/	DR	<p><b>CAR 5 (4.1 and 4.1b):</b> The scope of activities was not found in the description of the project activity. As per VVS the DOE shall confirm that the description of the proposed CDM project activity as contained in the PDD sufficiently covers all relevant elements, is accurate and that it provides the reader with a clear understanding of the nature of the proposed CDM project activity.</p> <p>4.1c) The wind farm will be located in General Bravo, in the state of Nuevo Leon.</p> <p><b>CL 6:</b> a) The PP is requested to clarify the installed capacity as per stated in the CFE study. b) The PP is requested to refer the operational lifetime of the equipment.</p>	<del>CAR-5</del> <del>CL-6</del>	OK
4.2 In the case of greenfield project activity, is the project design described sufficiently by means of specifications, drawings and manuals?	/2/	DR	Yes, Project activity is a Greenfield. However, please refer to CAR 5	<del>CAR-5</del>	OK
4.3 Does the project activity reflects current good practices, uses state of the art technology or would the technology result in a significantly better performance, than any commonly used technologies in the Mexico?	/2/	DR	Yes, the project activity reflects current good practices through the use of Technologies to produce clean electricity. In the host country the commonly used energy generation on fossil fuel consumption.	OK	OK
4.4 In cases where the project activity involves the alteration of an existing installation or process, does the PDD provide a clear description of the differences between the project and the pre-project scenario?	/2/	DR	N/A	OK	OK
4.5 What type is the project? If small scale – whether is	/2/	DR	i) N/A	OK	OK

<p>it Type I or type II or type III?  Type I – is maximum output capacity is equal or less then 15MW  Type II – is maximum output equal or less then 60GWh/year  Type III – is maximum output exceeds 60GWh/year</p> <p>i) Project in existing facility or utilizing existing equipment(s)  ii) Project is either a large scale project or a non-bundled small scale project with emission reductions exceeding 15 000 tCO<sub>2</sub>e per year. In this case, a site visit must be performed.  iii) Project is a bundled small scale project, with each project in the bundle with emission reductions not exceeding 15,000 tCO<sub>2</sub>e per year. In such case the number of physical site visits may be based on sampling, if the sampling size is appropriately justified through statistical analysis.  iv) The project is an individual small scale project activity with emission reductions not exceeding 15 000 tCO<sub>2</sub>e per year. In this case, DOE may not conduct a physical site visit as appropriate.  v) Greenfield project</p> <p>For small scale biomass, biofuel and biogas project activity – the maximal limit is 15MW (e) and 45MWth thermal output.  For small scale solar energy projects with exceptional of parabolic and trough type collectors – rest all shall have maximum output eligibility limit in terms of aperture area is 64000m<sup>2</sup>.</p>			<p>ii) The project is a large scale with emission reductions exceeding 15 000 tCO<sub>2</sub>e per year.  Nevertheless, a site visit was not performed by the audit team, due to the high risk that the municipality of General Bravo, located in the Mexican state of Nvo. Leon is currently facing.  Documental review was conducted at the facilities of CEMEX, based on Monterrey city state/region of Nvo. Leon, two hours from the site where the wind project will be implemented.  iii) N/A  iv) N/A  v) Yes, Project activity is a Greenfield.</p>		
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4.6 How was the design of the project assessed? i) Physical site inspection ii) Reviewing available designs and feasibility studies			<p>Related to the physical site inspection it was not performed by the audit team, due to the high risk that the municipality of General Bravo, located in the Mexican state of Nvo. Leon is currently facing.</p> <p>Documental review was conducted at the facilities of CEMEX, based on Monterrey city state/region of Nvo. Leon, two hours from the site where the wind project will be implemented.</p> <p><b>CL 7:</b> The PP is requested to clarify whether a FSR has been considered to to proceed with the investment in the project. In such case a wind study shall be provided in order to determine the feasibility of the zone.</p>	CL7	OK
4.7 Does the project qualify as a small scale CDM project activity as defined in paragraph 6(c) of decision 17/CP.7 on the modalities and procedures for the CDM?	/2/		N/A	OK	OK
4.8 In case of small scale project – is the project a bundle project activity? In this case the bundle output shall not exceed the small scale project activity limit Refer « general principles for bundling»	/2/		N/A	OK	OK
4.9 Is the small scale project activity a debundled component of a larger project activity in accordance with the rules defined in appendix C of the simplified modalities and procedures for small-scale CDM project activities? Refer «guidelines on assessment of debundling for SSC project activities»	/2/		N/A	OK	OK
<b>5. Baseline and Monitoring methodology(VVS Section 7.12)</b>					

<b>5.1 General requirements (VVS Section 7.12.1)</b>					
5.1.1 Is the methodology used in the project activity approved by the CDM EB and is the selected version still valid?	/10/	DR	<p>CAR 8: In the GSP- PDD the methodology ACM0002 version 12.1.0 is referenced. The PP is requested to correct these inconsistencies, in order to be aligned with the most updated version.</p> <p>CL 41 PP shall clarify if methodology would be updated to the latest version.</p>	<del>CAR 8</del> <del>CL 41</del>	OK
<b>5.2 Applicability of the selected methodology (VVS Section 7.12.2)</b>					
<p>5.2.1 Does the project activity qualify under the criteria for small-scale CDM project activities set out in § 6 (c) of decision 17/CP.7 and Annex II of the Modalities and Procedures for the CDM?</p> <p>5.2.1a) If the project applies a small-scale methodology, does the project also comply with the general guidelines to SSC CDM methodologies, which provides guidelines on equipment capacity, equipment performance/lifetime, baseline identification for type-II/III Greenfield project activities, sampling and other monitoring-related issues?</p> <p>In case of replacement of existing equipment's – « tool to determine the remaining lifetime of equipment» shall be referred. This can be disregarded for household devices/appliances.</p>	/2/	DR	N/A	OK	OK
5.2.1.1 If yes, does the PDD extensively demonstrates and confirms that the small-scale project activity is not a debundled component of a larger project?	/2/	DR	N/A	OK	OK



5.2.2 Are all applicability conditions of the selected baseline and monitoring methodology and all tools involved satisfied by the project activity?	/2/	DR	<p>Yes, the applicability criterion has been correctly applied as per methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”</p> <p><b>CAR 9:</b> a) As per guidelines for completing PDD the section B.1 shall include all the relevant tools used in the PDD. Furthermore, the applicability of each used tool shall be addressed in the section B.2. b) Date of completion of baseline study shall be stated in section B.4 of the PDD.</p>	<del>CAR-9</del>	OK
5.2.3 Is the selection of the applied baseline and monitoring methodology justified?	/2/	DR	Yes, applicability criteria are fulfilled and it is completely described in the GSP PDD	OK	OK
5.2.4 Is the selected methodology correctly quoted in all related documents?	/2/	DR	Please refer to CAR 8	<del>CAR-8</del>	OK
5.2.5 Does the PDD sufficiently describe all the GHG emission sources or sinks occurring as a result of project activity, which have not been accounted for under the selected methodology and are expected to contribute more than 1% of the overall expected average annual emission reductions?	/2/	DR	Yes, the only GHG to be taken on account for renewable energy projects is the CO <sub>2</sub> Baseline Emission due to fossil fuel consumption for energy generation in the National Grid.	OK	OK
<b>5.3 Project boundary (VVS Section 7.12.5))</b>					
5.3.1 Does the PDD correctly describe the project boundary? Are they clearly defined and in accordance with the methodology?	/2/	DR	The project boundary is correctly identified in the GSP- PDD, a Flow diagram has been added in section B.3. identifying the project boundary.	OK	OK
5.3.2 Does the PDD correctly indicate and describe the emission sources and sinks of GHG gases that are included in the project boundary?	/2/	DR	Yes, Table of section B.3 describes the GHG emission sources of the project activity included in project boundary. No sinks of GHG are considered.	OK	OK

5.3.3 In cases where the methodology allows project participants to choose whether a source or gas is to be included in the project boundary, is the choice explained and justified by PPs?	/2/	DR	N/A	OK	OK
5.3.4 Does the project involve other emissions sources not foreseen by the methodologies that may question the applicability of the methodology? Do these sources contribute with more than 1% of the estimated emission reductions of the project?	/2/	DR	N/A	OK	OK
<b>5.4 Baseline identification (VVS Section 7.12.6)</b>					
5.4.1 Has the procedure contained in the selected methodology to identify the most reasonable baseline scenario been applied correctly and documented in the PDD?	/2/	DR	The methodology contain a specific procedure to determine baseline scenario in the cases where the project activity consist on the installation of a new grid-connected renewable plant. The baseline scenario is indicated in the PDD as definition in the methodology.	OK	OK
5.4.1.1 Is the identified baseline scenario plausible?	/2 /	DR	The identified scenario is plausible as the electricity would be consumed from the grid in the absence of the project activity	OK	OK
5.4.1.2 Are all assumptions stated in a transparent and conservative manner?	/13/	DR	Yes, baseline is the power plants connected to the grid that have been supplying energy to the grid by the consumption of fossil fuels	OK	OK
5.4.2 Does the selected methodology require the use of tools and does PDD reflects that correctly?	/2/	DR	The selected methodology (ACM0002) requires the use of other tools. Nevertheless, please see CAR 8	<del>CAR 8</del>	OK
5.4.2.1 Were all the tools applied correctly?	/2/	DR	Yes. The tool is followed step by step. Nevertheless, please see CAR 8	<del>CAR 8</del>	OK

5.4.3 In case the methodology requires several alternative scenarios to be considered in the identification of the most reasonable baseline scenario, have all scenarios been considered and have no reasonable alternative scenario been excluded?	/2/	DR	No, the methodology is clear in the baseline scenario for wind farms. Do not need to assess alternatives.	OK	OK
5.4.3.1 Has the choice of the baseline scenario been done using conservative assumptions?	/2/	DR	Yes, the baseline scenario is described as in the methodology	OK	OK
5.4.4 Is the identified baseline scenario reasonable according to the assumptions, calculations and rationales used in the PDD and other reference sources?	/2/	DR	Baseline scenario is considered reasonable according to the forecast of the Mexican Energy Ministry.	OK	OK
5.4.6 Does the PDD describe how the national and sectoral policies, macro-economic trends and political aspirations relevant to the baseline scenario have been identified and considered in the PDD? Refer CDM PS para 45	/2, 8/	DR	Yes, since the baseline determination depends on the National Circumstances, national and sectoral policies are duly taken on account.	OK	OK
5.4.7 Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the project activity?	/2/	DR	PDD identifies the baseline scenario in subsection Sub-step 1b as well as the alternative activities that would take place in the absence of the project activity.	OK	OK
<b>5.5 Algorithm and/or formulae used to determine emission reductions (VVS Section 7.12.7)</b>					

<p>5.5.1 Are all calculations applied and documented according to the selected methodology and in a complete and transparent manner to calculate emission reductions from the project activity?</p> <p>5.5.1b) Are correct units applied and consistency between parameter dimensions and parameter value ensured?</p>	/2/	DR	<p>Please refer to 5.1.1</p> <p><b>CAR 10:</b> a) As part of the determination of baseline emissions and the investment analysis for project related to renewable energy generation, The plant load factor shall be defined ex-ante in the CDM-PDD, as per EB 48 annex 11.</p> <p>b) In accordance with the methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable power generation project activities, PE=0. However, it’s also clearly stated that some project activities may involve projects emission that can be significant, thus the PP shall clarify why these emissions were not accounted for the project activity.</p> <p>c) Table A.4.4 related to the total number of crediting year shall be corrected to 7 years instead 21 years.</p> <p>d) Table B.6.4 of the estimation of emission reductions shall be consistent with the ERs spreadsheet.</p>	OK	OK
<p>5.5.2 In case the methodology allows a selection between different options for equations or parameters, has adequate justification been given and have the correct equations and parameters been used, in accordance with the methodology selected?</p>	/2/	DR	Please refer to 5.4.1.1	OK	OK

5.5.3 In case some data and parameters will not be monitored throughout the crediting period, but have already been determined and fixed, are all data sources, assumptions and calculations correct, applicable to the proposed CDM project activity and conservative?	/2/	DR	Please refer to 5.1.1 & 5.5.1	<del>CAR-8</del> <del>CAR-10</del>	OK
5.5.4 In case data and parameters will be monitored on implementation and hence become available only after validation of the project activity, are the estimates provided in the PDD for these data and parameters reasonable?	/2/	DR	<b>CAR 11:</b> Project participants shall provide a reliable evidence of the estimation on Electricity generation and whether the approach adopted is conservative reflecting the real situation of the site.	<del>CAR-11</del>	OK
5.5.5 Have the major risks and uncertainties, which can influence the emission reduction estimates, been identified and addressed in the PDD?	/2/	DR	<b>CL 12:</b> There are no risks or uncertainties identified in the PDD for the calculation of emission reduction. However, project participant has been requested to clarify their claim for not including coal under the low-cost/must run category and the result of this clarification may influence the emission reduction estimation.	<del>CL-12</del>	OK
5.5.6 Are the calculations documented according to the approved methodology and in a complete and transparent manner in calculating the project emissions? Have conservative assumptions been used when calculating the project emissions?	/2/	DR	<p>According to the applicable methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” for wind farm project activities no project emissions are considered in the project boundary. However, please refer CAR 10</p> <p>CL 37</p> <ol style="list-style-type: none"> <li>Appendix 4 of the PDD has to show the step-wise calculation for <math>EF_{grid}</math> transparently.</li> <li>LCMR demonstration for selection of Simple OM calculation is also</li> </ol>	<del>CAR-10</del> <del>CL-37</del> <del>CAR-38</del> <del>CAR-39</del> <del>CAR-42</del>	OK

			<p>requested to be included.</p> <p>CAR 38</p> <p>Refer Grid emission factor calculation, worksheet 'EF<sub>Grid OM</sub>':</p> <ul style="list-style-type: none"> <li>Table 15 in PDD is not consistent with worksheet rows 38&amp;39. Please correct accordingly.</li> <li>Cell A28 indicates 'Internal' as the type of fuel. Please indicate what kind of fuel it is,</li> <li>The unit indicated in cell A43 is not GWh but the figures are directly added to MWh without using factor. Please check.</li> </ul> <p>CAR 39</p> <p>Equation 5 of the BM calculation and it's demonstration in Appendix 4 is not in accordance with the tool to calculate emission factor for an electricity system.</p> <p>CAR 42</p> <p>In section B.6.3 PDD states that details of the OM calculation are found in Appendix 3, however this information should be found in Appendix 4.</p>		
5.5.7 Are uncertainties in the project emission estimates properly addressed?	/2/	DR	Please refer to CAR 10	<del>CAR 10</del>	OK

5.5.8 Does any of the parameters require the use of sampling? If yes – how the sampling is been carried out Refer «standard for sampling and surveys for CDM project activities and programme of activities»	/2/	DR	No sampling is needed to be carried out as net electricity generation can be measured continuously	OK	OK
<b>5.6 Leakage</b>					
5.6.1 Has the leakage been identified and calculated according to the approved methodology?	/2/	DR	According to the applied methodology no leakage has to be considered.	OK	OK
5.6.2 Have the leakage been addressed in complete, conservative and substantiated manner? Note: for small scale project activity – the leakage should be considered within the non-annex 1 parties.	/2/	DR	According to the applied methodology no leakage has to be considered.	OK	OK
5.6.3 Are uncertainties in the leakage emission estimates properly addressed?	/2/	DR	According to the applied methodology no leakage has to be considered.	OK	OK
<b>6. Methodology-related issues for afforestation or reforestation CDM project activities</b>					
Add specific A/R requirements – if applicable!	/2/	DR	Not applicable for this CDM project activity	O.K.	O.K.
<b>7. Additionality (VVS Section 7.12.8)</b>					
7 a) What approach/tool does the project use to assess additionality? Is this in line with the methodology? In case of small-scale CDM project activities, is Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities applied considering also the “Non-binding best practice examples to demonstrate additionality for SSC project activities” with any applicable additionality tools.  For microscale projects « guidelines for demonstrating additionality of microscale project activities» shall be referred.	/2/	DR	PP uses Investment analysis as stated in the “Tool for the demonstration and assessment of additionality” (version 05.2.1).	OK	OK



7 b) Have the regulatory requirements correctly been taken into account to evaluate the project activity and the alternatives? Is sufficient evidence provided to support the relevance of the arguments made?	/2/	DR	Yes, the regulatory requirements are taken into account to evaluate the project activity and the alternatives in the GSP-PDD.	OK	OK
7 c) What is the project additionality mainly based on (Investment analysis or barrier analysis)?	/2/	DR	The project is based on investment analysis based on the “Tool for the demonstration and assessment of additionality” (version 05.2.1)	OK	OK
<b>7.1 Prior consideration of the CDM (VVS Section 7.12.9)</b>					

7.1.1 Is there documented evidence provided by the project participants on how and when the decision to proceed with the project activity was taken?	/2/	DR	<p>CL 13: a) The PP is requested to provide reliable evidence, and clarify whether the timeline as prior CDM consideration submitted in the PDD, is in line with the project implementation history, evidence regarding the starting date e.g. contracts with consultants for CDM/PDD/methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology to the CDM Executive Board, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat., in order to assess that the incentive from the CDM was seriously considered in the decision to proceed with the project activity.</p> <p>CAR 14: Timetable stated in the PDD, indicating relevant information regarding the development of the project and the main events related to the CDM development shall be corrected, estimated dates cannot be considered as a prior CDM consideration.</p>	<del>CL-13</del> CAR-14	OK
7.1.2 Is the starting date of the project activity, reported in the PDD, in accordance with the “Glossary of CDM terms” and CDM PS section C and VVS (§112)?	/2/	DR	Please refer to CL 13	<del>CL-13</del>	OK

7.1.3 Is the date stated in the provided evidence consistent with other available real action evidence (e.g. dates of construction, purchase orders for equipment)?	/2/	DR	Please refer to CL 13	<del>CL 13</del>	OK
7.1.4 If the project was not published and the starting date is on or after 2nd August 2008, was it possible to receive from UNFCCC secretariat and DNA a written confirmation that PPs previously informed the above entities on commencement of the project activity and of their intention to seek CDM status?	/2/	DR	<p>Yes, it can be confirmed that the PP informed to the UNFCCC Secretariat on the intention to seek CDM status.</p> <p>The starting date stated in the published PDD is: February 2013, this the date when the project participant expect to sign the purchase contract for the turbines.</p> <p>The Prior consideration was received on 11/01/2011.</p> <p>The project was published from 25/11/2011 to 24/12/2011</p> <p>CL 15: The PP is requested to clarify the difference related to the geographical location stated in the Prior consideration form with the stated PDD.</p>	<del>CL 15</del>	OK
7.1.5 For the project activities with a starting date before 2nd August 2008 and before the actual publication, was there enough evidence presented to prove that PPs were previously aware of CDM?	/2/	DR	N/A	OK	OK
7.1.6 For the project activities with a starting date before 2nd August 2008 and before the actual publication, was there enough evidence presented to prove that CDM benefits have been a decisive factor in the decision to proceed with the project activity?	/2/	DR	N/A	OK	OK

7.1.7 Does the individual or body that took the decision to proceed with the project activity have/had the authority to do so?	/2/	DR	CAR 16: Project participant is requested to state whether the individual or body that took the decision to proceed with the project activity have/had the authority to do so.	<del>CAR-16</del>	OK
7.1.8 For the project activities with a starting date before 2nd August 2008 and before the actual publication, was there enough evidence presented to prove that PPs were taking continuing and real actions to secure CDM status for the project in parallel with its implementation?	/2/	DR	N/A	OK	OK
7.1.7 In case there is a significant gap between the start date of the project activity and the commencement of validation, how was it possible for the project participant to commit funds to the project in advance of receiving a positive validation opinion?	/2/	DR	CL 17: Due to the time lapse between the starting of the validation (25th November 2011) and the expected starting date of the project activity (February 2013), project participant must clarify how they will commit funds to the project in advance of receiving a positive validation opinion.	<del>CL-17</del>	OK
7.1.8 How has the starting date of the project activity been determined? What are the dates of the first contracts for the project activity? When was the first construction activity?	/2/	DR	Please refer to CL 13 & CL17	<del>CL-13</del> <del>CL-17</del>	OK
7.1.9 Is the stated expected operational lifetime of the project activity reasonable?	/2/	DR	Please refer to CL 6	<del>CL-6</del>	OK
7.1.10 Is the crediting period start date, the type (renewable/fixed) and the length of the crediting period clearly defined and reasonable?	/2/	DR	Yes, the PP has selected a renewable period of 7 years 0 months in accordance with the "Guidelines for completing the CDM-PDD" established in the EB 41 Annex 12  CAR 18: The PP is requested to remove the date stated in section C.2.2.	<del>CAR-18</del>	OK
<b>7.2 Identification of alternatives(VVS Section 7.12.10)</b>					

7.2.1 Does the PDD identify and list credible alternatives to the CDM project activity in order to determine the most realistic baseline scenario, unless selected approved methodology prescribes/identifies the baseline scenario and no further analysis is required?	/2/	DR	The PDD actually has identified several alternatives even though is not required by the methodology	OK	OK
7.2.2 Does the list of alternatives include as one of the options that the project activity is undertaken without being registered as a CDM project activity?	/2/	DR	Project activity undertaken without being registered as a CDM project activity has been included among the alternatives considered by the project participant.	OK	OK
7.2.3 Does the list contain all realistic/credible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the project activity?	/2/	DR	<p>Alternatives contained in the list are quite feasible and realistic. All alternatives are viable means of providing the same service of the project activity. Nevertheless</p> <p>CL 34</p> <p>a. The evidences to eliminate alternatives need to be provided and validated for :</p> <ul style="list-style-type: none"> <li>• Alternative 1, and</li> <li>• Alternative 3.</li> </ul> <p>b) Conclusion for sub-step 1(b) is unclear.</p>	<del>CL 34</del>	OK
7.2.4 Is the exclusion of the alternatives for legal reasons justified?	/2/	DR	None of the alternatives are excluded due to legal issues	OK	OK
<b>7.3 Investment Analysis(VVS Section7.12.11)</b>					

<p>7.3.1 Are all sources of revenues (including savings) have been considered in the PDD and all calculations? Refer «guidelines on the assessment of investment analysis»</p>	/2/	DR	<p>CAR 19: Regarding the presented investment analysis, the PP is requested to clarify or correct the following issues accordingly:</p> <p>a) The assessment period varies from a 2011 – 2031 scenario with CERs, to a 2013 – 2033 scenario without CERs, thus these inconsistencies shall be corrected by the PP.</p> <p>CL 20: a) The PP is requested to clarify why the Investment and construction of road is depreciated. b) The PP is requested to clarify whether the project will be 100% financed with equity (please refer to comments provided).</p>	<del>CAR 19</del> <del>CL 20</del>	OK
<p>7.3.2 Is the type of investment analysis selected correctly in the PDD? Is the choice of benchmark analysis, investment comparison or simple cost analysis correct?</p>	/2/	DR	<p>Yes, the benchmark analysis was chosen which is in accordance to the “Tool for the demonstration and assessment of additionality” (version 05.2.1) Please refer to CL 20</p>	<del>CL 20</del>	OK
<p>7.3.3 Is the selected financial indicator chosen and applied correctly? Is it on equity/project basis? Before/after tax? Is the financial indicator in correspondence with the benchmark?</p>	/2/	DR	<p>Yes, discount rate was calculated without taking into consideration interest expense and Cost of Debt, since the project will be 100% financed with equity.</p> <p>The expected return on equity is an appropriate benchmark for Equity IRR.</p>	OK	OK

7.3.4 Is the guidance on IRR calculation and assessment correctly applied?	/2/	DR	As per PDD and investment analysis spreadsheets, Equity IRR was calculated without taking into consideration interest expense and Cost of Debt. Equity IRR calculations were conducted instead of Project IRR. However, please refer to CL 20	<del>CL 20</del>	OK
7.3.5 In case project participants use values from Feasibility Study Reports (FSR) is it possible to verify that the period between the FSR date and investment decision was reasonably short and FSR values did not change materially?	/2/	DR	Please refer to CL 7	<del>CL 7</del>	OK
7.3.6 Are all the values consistent between FSR and PDD and are inconsistencies properly justified?	/2/	DR	Please refer to CL 7	<del>CL 7</del>	OK
7.3.7 Were all the values from FSR applicable and valid at the time of the investment decision?	/2/	DR	Please refer to CL 7	<del>CL 7</del>	OK
7.3.8 Is it reasonable to assume that no investment would be made at a rate of return lower than the benchmark by, for example, assessing previous investment decisions by the project participants or some verifiable circumstances that have led to a change in the benchmark?	/2/	DR	Please refer to CL 20	<del>CL 20</del>	OK
7.3.9 Is the Investment Analysis prepared in compliance with the latest version of the "Guidance on the Assessment of Investment Analysis" as provided by the CDM EB?	/2/	DR	Yes, please refer to the table: "Assessment of investment analysis based on the Guidelines on the assessment of investment analysis version 05 established in the EB 62 Annex 5 attached.	OK	OK



<p>7.3.10 Do the project include all the data sources used (input &amp; output / loss &amp; profit) and list all the projects that have been used for cross-checking in accordance with VVS paragraph 123.</p> <p>Does the income tax calculation take depreciation into account? Is the depreciation year in accordance with normal accounting practice in the Mexico?</p> <p>Has salvage value been taken into account? Is working capital returned in the last year of operation?</p> <p>How are the PLF of the project assessed?</p> <p>How are output price assessed?</p> <p>How are O&amp;M cost assessed?</p>	/2/	DR	<p>CL 35</p> <p>In the investment analysis:</p> <ul style="list-style-type: none"> <li>• Formula for the calculation of benchmark value need to be shown in the PDD,</li> <li>• Source for the input values in Table 8 need to be included/referenced in the PDD,</li> <li>• For sensitivity analysis, please include the discussion in the PDD in accordance with the assessment in the spreadsheet. Include discussion on likelihood of the variation.</li> </ul> <p>Please refer to CAR 19 &amp; CL 20</p>	<p><del>CAR 19</del> <del>CL 20</del> <del>CL 35</del></p>	OK
<p>7.3.11 Sensitivity analysis: Have the key parameters contributing to more than 20% of the revenue/costs during operating or implementation been identified? Has possible correlation between the parameters been considered?</p> <p>Is the range of variations (10% in default) is reasonable in the project context?</p> <p>Have the key parameters been vary to reach or cross the benchmark and have the likelihood of this to happen been justified?</p>	/2/	DR	<p>As per PDD, the variables subject to the sensitivity analysis are:</p> <ul style="list-style-type: none"> <li>- Investment</li> <li>- O&amp;M Costs</li> </ul> <p>The sensitivity analysis shows the likelihood of occurrence of a scenario other than the one presented, and provides a cross-check on the suitability of the assumptions used in the development of the investment analysis. Additional variables are presented that provide important information about the project, while not fully meeting the &gt;20% rule, they directly affect expected project income:</p> <ul style="list-style-type: none"> <li>• Electricity Price</li> <li>• Transmission Costs</li> <li>• CERs sales</li> </ul>	OK	OK

<b>7.4 Barrier analysis(VVS Section 7.12.12)</b>					
7.4.1 Are there any issues addressed in the barrier analysis that have a clear impact on the financial viability of the project activity and that shall be assessed by an investment analysis? Refer «guidelines for objective demonstration and assessment of barriers»	/2/	DR	Not applicable because project participant did not perform a barrier analysis.	OK	OK
7.4.2 Do the listed barriers exist and is their existence substantiated?	/2/	DR	Not applicable because project participant did not perform a barrier analysis.	OK	OK
7.4.3 Would any of the identified barriers prevent the implementation of the project activity but not equally prevent the implementation of the possible alternatives, in particular the implementation of the identified baseline scenario?	/2/	DR	Not applicable because project participant did not perform a barrier analysis.	OK	OK
<b>7.5 Common practice analysis(VVS Section 7.12.13)</b>					
7.5.1 If the PPs claim in the PDD that CDM project activity is the “first of its kind”, is it justified? Refer «guideline on additionality of first-of-its-kind activities» and «guideline on common practice»	/2/	DR	NA, the PP does not claim the project is first of its kind.	OK	OK
7.5.2 Are the geographical boundaries of the project activity identified correctly?	/2/	DR	CAR 21: Geographical boundaries of the project activity were identified the table included in the common practice analysis. However, the table is not complete (the right side of the table is not visible), thus the PDD shall be corrected by the PP accordingly.	<del>CAR 21</del>	OK

7.5.3 Does the PDD provide an explanation why this region was selected and deemed more appropriate and is this explanation traceable and reliable?	/2/	DR	<p>CAR 22: PDD does not provide an explanation in the common practice analysis section why the region was selected and deemed more appropriate, thus the PDD shall be corrected by the PP accordingly.</p> <p>CL 36</p> <p>Evaluation of ‘Common practice analysis’:</p> <ul style="list-style-type: none"> <li>• Please indicate source of information,</li> <li>• Step 2 (a) requires discussion on applicable geographical area which is missing in the PDD,</li> <li>• Table 13: <ul style="list-style-type: none"> <li>i. Please include the start date of the plants in the table,</li> <li>ii. Please use only English words</li> </ul> </li> </ul>	<del>CAR 22</del> <del>CL 36</del>	OK
7.5.4 Are there similar operational project activities, other than CDM activities, “widely observed and commonly carried out” in the defined region?	/2/	DR	According to the analysis performed by the project participant based on the step wise procedure of reference /16/, there are no similar operational activities other than CDM..	OK	OK
7.5.5 In case there are similar commercially operated project activities, other than CDM activities, already “widely observed and commonly carried out” in the defined region, are there essential distinctions between the CDM project activity and the other similar activities?	/2/	DR	Not applicable since there no similar activities other than CDM.	OK	OK
<b>8. Monitoring plan (VVS Section 7.12.14 )</b>					

8.1	Are all parameters required by the selected approved methodology or tool identified and listed in the PDD? Note: not all methodologies indicate monitoring parameters in tabular form or by reference to the variables used in formulae; Nonetheless, all parameters indicated in the methodology and applicable to the project must be listed in the PDD, omissions due to non-applicability be justified.	/2/	DR	All parameters required by the methodology (net electricity generation supplied by the project plant to the grid in a year y) are identified and listed in the PDD.	OK	OK
8.2	Is the measurement method clearly stated for each value to be monitored and deemed appropriate?  Does the monitoring plan record data in the original form as generated, providing QA/QC procedures to be used on the measurement method?	/2/	DR	CAR 23: As per guidelines for completing the section B.7.1 and annex 4 of the PDD shall include the following information as part of the QA/QC procedures:  <ul style="list-style-type: none"> <li>Place where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a specification which accepted industry standards or national or international standards will be applied.</li> <li>Procedures of the data storage.</li> <li>Information regarding the back-up meter.</li> <li>Calibration procedures including the frequency of the measurement equipment's.</li> <li>Accuracy class should be included in order to determine of measurement method is appropriate.</li> </ul>	CAR 23	OK
8.3	Are values of the ex-ante parameters / monitoring parameters selected correctly and conservative in accordance to methodology or tools? See the NOTE in section 3.6.1 above!	/2/	DR	Yes, values of the parameters are estimated according to studies and public information.	OK	OK

8.4	Is the measurement equipment for each parameter described and deemed appropriate?  Are the locations of all measurement equipment clearly identified and consistently described, incl. process flow-charts contained in the PDD?	/2/	DR	Please refer to CAR 22	<del>CAR 22</del>	OK
8.5	Is the measurement accuracy addressed and deemed appropriate?	/2/	DR	Please refer to CAR 22	<del>CAR 22</del>	OK
8.6	Are procedures in place on how to deal with erroneous measurements and are the corrective actions identified?	/2/	DR	Yes, it is indicated in Annex 4 of the GSP (Note: As PDD is later updated under VVS track, it is indicated in Appendix 5 of th latest PDD)	OK	OK
8.7	Is the frequency of measurement identified and deemed appropriate?	/2/	DR	Yes. Measurement of the generated electricity will be done continuously as identified in the GSP PDD.	OK	OK
8.8	Is the monitoring plan documented according to the approved methodology and in a complete and transparent manner?	/2/	DR	CAR 24: Project participant is requested to add detail description of the monitoring plan indicating responsibilities and institutional arrangements for data collection and archiving, indicating what sort of monitoring practices project participant will be implemented.	<del>CAR 24</del>	OK
8.9	Are the sampling, measurement methods and procedures defined?	/2/	DR	N/A	OK	OK
8.10	Are procedures identified for maintenance of monitoring equipment and installations?	/2/	DR	Please refer to CAR 24	<del>CAR 24</del>	OK
8.11	Are the equipment calibration intervals identified and justified? Is the calibration conducted by accredited person or intuition?	/2/	DR	Calibration time interval was identified as once per year. Calibration will be performed by the grid owner, the Federal Commission of Electricity.	OK	OK

8.12 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	/2/	DR	CAR 25: No procedures have been identified for the day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation.	<del>CAR-25</del>	OK
8.13 Are the monitoring arrangements described in the monitoring plan feasible within the project design?	/2/	DR	The monitoring arrangements described in the monitoring plan (electricity meter, measurement requency, calibration frequency and data cross-checking) are feasible within the project design.	OK	OK
8.14 Are the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, sufficient to ensure that the emission reductions achieved by / resulting from the project activity can be reported ex post and verified?	/2/	DR	Please refer to CAR 23	<del>CAR-23</del>	OK
8.15 Do the PPs make provisions for personnel training needs?	/2/	DR	CAR 26: No provisions had been included in the PDD, thus relevant information shall be addressed accordingly.	<del>CAR-26</del>	OK
8.16 Is the authority and responsibility of overall project management clearly described?	/2/	DR	CAR 27: The PP is requested to include in the PDD the Organization chart regarding the management of the CDM project.	<del>CAR-27</del>	OK
8.17 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	/2/	DR	CAR 28: There are no procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions, thus the PDD shall be corrected by the PP.	<del>CAR-28</del>	OK
8.18 Are procedures identified for review of reported results/data?	/2/	DR	Yes, data handling is established in Annex of the GSP PDD. (Note: The PDD is later updated to VVS track , they are established in Appendix 5 of the latest PDD)	OK	OK

8.19 Does responsibilities and institutional arrangements for data collection and archiving in place? Is the data archiving period for this project activity stated in the PDD and appropriate?	/2/	DR	CAR 29: Data archiving is stated to be in electronic way. However, archiving period shall be added in the PDD monitoring plan.	<del>CAR 29</del>	OK
8.20 Is the monitoring parameters for all project emissions captured?	/2/	DR	Yes, all the monitoring parameters are stated in the Annex 4 of CDM PDD.	OK	OK
8.21 Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later?	/2/	DR	Please refer to CAR 27	<del>CAR 27</del>	OK
8.22 Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/2/	DR	Please refer to CAR 23 & 29	<del>CAR 23</del> <del>CAR 29</del>	OK
8.33 Is operational and management structure in place to implement the monitoring plan?	/2/	DR	Please refer to CAR 27	<del>CAR 27</del>	OK
<b>8.2 Monitoring of the leakage</b>					
8.2.1 Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	/2/	DR	NA, leakage is not considered by the Methodology.	OK	OK
8.2.2 Is the choice of project leakage indicators made according to selected methodology in a reasonable and conservative manner?	/2/	DR	NA, leakage is not considered by the Methodology.	OK	OK
8.2.3 Is the measurement method clearly stated and deemed appropriate for each leakage value?	/2/	DR	NA, leakage is not considered by the Methodology.	OK	OK
<b>9. Sustainable development(VVS Section 7.5 )</b>					



9.1 Does the LoA from the Mexico DNA contain the confirmation that the proposed CDM project activity contributes to the sustainable development of the host Party?	/3-4/	DR	Please refer to CAR 1  CAR 40 Please revise Section F of the PDD Table 13, as the LOAs have already been provided to the DOE.	<del>CAR 4</del> <del>CAR 40</del>	OK
9.2 If PDD indicates any additional environmental benefits of the project, other than GHG emission reductions, were those benefits properly substantiated?	/3- 4/	DR	CAR 30: PDD states natural resources conservation as an additional environmental benefit. Project participant states that environmental benefits will be provided in accordance to SEMARNAT (Ministry of Environment and Natural Resources) environmental program. However, indicators are not included in the PDD.	<del>CAR 30</del>	OK
<b>10. Stakeholders' consultation and comments (VVS Section 7.5 &amp; 7.14)</b>					
10.1 Were the stakeholders identified in appropriate and complete manner?	/29 -33/	DR	CAR 31: As per VVS 3.0 paragraph 138, Invitation, participants list, and summary of the comments received in the PDD shall be provided to the DOE.	<del>CAR 31</del>	OK
10.2 Are the identified stakeholders plausible?	/29 -33/	DR I	Please refer to CAR 31	<del>CAR 31</del>	OK
12.3 Does PDD describe the means being used to invite local stakeholder's comments?	/29 -33/	DR	CAR 32: Regarding the Stakeholders' the PP is requested to: a) Describe in the PDD the means of invitation and communication with the stakeholders. b) Evidence of the receipt of the questionnaires shall be submitted to the DOE.	<del>CAR 32</del>	OK
12.4 Were those means appropriate?	/29 -33/	DR	Please refer to CAR 31 & 32	<del>CAR 31</del> <del>CAR 32</del>	OK
12.5 Was the project presented to the stakeholders in unbiased manner?	/29 -33/	DR	Please refer to CAR 31 & 32	<del>CAR 31</del> <del>CAR 32</del>	OK

12.6 If a stakeholder consultation process is required by regulations/laws in the Mexico, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	/29 -33/	DR	Please refer to CAR 31 & 32	<del>CAR 31</del> <del>CAR 32</del>	OK
12.7 Is a summary of the stakeholder comments provided in the PDD?	/29 -33/	DR	Please refer to CAR 31 & 32	<del>CAR 31</del> <del>CAR 32</del>	OK
12.8 Has due account of any stakeholder comments been taken by PPs and reflected in the PDD?	/29 -33/	DR	Please refer to CAR 31 & 32	<del>CAR 31</del> <del>CAR 32</del>	OK
<b>11. Environmental impacts(VVS Section 7.13)</b>					
11.1 Is the documentation supplied by the PPs regarding environmental impacts relevant and accurately reflected in the PDD?	/2/	DR	CAR 33: The latest approval of the Environmental Impact Assessment shall be provided to the DOE, in accordance with current technical characteristics of the project activity.	<del>CAR 33</del>	OK
11.2 Is an environmental impact assessment (EIA) required for the CDM project activity?	/2/	DR	Please refer to CAR 33	<del>CAR 33</del>	OK
In case an EIA is required, has the EIA has been approved by local authorities and is the outcome accurately reflected in the PDD?	/2/	DR	Please refer to CAR 33	<del>CAR 33</del>	OK
11.4 Does the PDD include a brief description of the environmental effects of the project, including transboundary?	/2/	DR	Please refer to CAR 33	<del>CAR 33</del>	OK
11.5 Are those effects properly addressed in the design of the project activity?	/2/	DR	Please refer to CAR 33	<del>CAR 33</del>	OK
11.6 Does the project comply with environmental legislation in the Mexico?	/2/	DR	Please refer to CAR 33	<del>CAR 33</del>	OK

**Table 2: List of Requests for Corrective Action (CAR) and Clarification (CL)**

Validation / Verification Standard

(25) The DOE shall raise a corrective action request (CAR) if one of the following occurs:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (b) The CDM requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

(26) The DOE shall raise a clarification request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

The wording of CAR/CL shall clearly address nonconformity or seek clarification, and avoid instructive / consultative language in order to prevent actual or perceived consultancy.

No.	CAR/CL	Observation (CAR/CL)	Reference	Summary of project owner response	Validation team conclusion
1	x	<b>CAR 1</b> As per VVS 3.0 paragraph 38 the PP shall be submitted the LoAs of each Party indicated as being involved in the proposed CDM project activity in section A.3.		The LoAs are attach they are presented as follow per each project participant: P121_VAL_137: LOA CEMEX International Finance Company (Private entity). P121_VAL_124: LOA CO2 Global Solutions International S.A. (Private entity) P121_VAL_112: LOA Ventika S.A. de C.V.	Three LoA have been provided by project participant: a) DNA in Mexico (for CIFCO and Ventika), b) DNA in UK (for CIFCO) and c) DNA in UK (for CO2 Sols). The letters fulfill the requirements of paragraph 38 of VVS 2.0 <b>CAR 1 is closed.</b>
2	x	<b>CAR 2:</b> The Letter MoC shall be submitted to the DOE.		The Letter MoC is the following document: P121_VAL_138  <b><u>Further request from DOE :</u></b> Stamped MoC or a signed written statement from the authorized primary person or shall be provided to the DOE  <b><u>Furthe response from PP:</u></b>  It is correct the MoC in format VVS because the PDD is in format VVS too.	The project participant used the MoC form version 2.1 for VVS. <b>CAR 2 is closed</b>

					<p><b><u>Further request from DOE :</u></b>  As per "PROCEDURES FOR MODALITIES OF COMMUNICATION BETWEEN PROJECT PARTICIPANTS AND THE EXECUTIVE BOARD", the MoC signature may be either an authenticated handwritten signature, accompanied with a company seal or stamp if appropriate, or cryptographic electronic signature enrolled in the CDM Information System. PP is requested to submit the MoC according to the procedure.</p> <p><b><u>Further response from PP :</u></b>  Please refer to the documents P121_VAL_176, P121_VAL_177 and P121_VAL_178. They are letters that confirm the validity of the signature in the MoC.</p> <p><b><u>Further request from DOE (2):</u></b>  Geographic coordinates with +/-shall not include abbreviation for north (N) and west (W). PP is requested to remove it.</p> <p>Throughout PDD, the correct abbreviation for sources of gas, i.e. subscript for CO<sub>2</sub>, CH<sub>4</sub> shall be indicated as per methodology; apply the same for methodology equations.</p> <p><b><u>Further request from PP (2):</u></b></p>	
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					The PDD was corrected according the abbreviation for sources of gas and it was eliminated the N and W in the coordinates.	
3	x		<b>CAR 3:</b> Parties and project participants (PP) listed in the section A.4 shall be consistent with the appendix 1 of the PDD.		<p>Corrections have been made. Please see document: P121_VAL_125</p> <p><b><u>Further request from DOE:</u></b></p> <p>Information in section A.4 of the PDD states that CO2 Global Solutions International S.A is a United Kindgom entity and the LoA confirms that fact, however in the information used in Annex I CO2 Global Solutions International S.A is based in Spain. Project participant is requested to explain why the entity countries do not match.</p> <p><b>CAR 3 is open.</b></p> <p><b><u>Further answer from the PP:</u></b></p> <p>United Kingdom is the country that has issued the Letter of Approval (LoA) for CO2 Global Solutions International S. A. as a Party Involved (according the glossary of CDM terms a Party Involved is “A Party that has ratified the Kyoto Protocol and that provides written approval”. Spain corresponds to the country where CO2 Global Solutions International has its offices.</p>	<p>Parties and project participants listed in the section A.4 are consistent within the PDD under the VVS track. Furthermore, PP has clarified that UK is the Party Involved that issued the LoA for CO2 Global Solutions International S.A, even when its central offices are in Spain.</p> <p><b>This CAR is CLOSED</b></p>
4	x		<b>CAR 4:</b> PDD used by project participant is not the latest template available at the UNFCCC, due to the following issues:		<p>a)Corrections have been made. Please see document: P121_VAL_125</p> <p>b) Corrections have been made. Please see document: P121_VAL_125</p>	<p>PP has utilized the latest template available at the UNFCCC for the PDD.</p> <p><b>This CAR is CLOSED</b></p>

			<p>a) Project participant edited the main header of the PDD template changing the version number and the issuance date of the template by the version number and issuance date of project participant PDD.</p> <p>b) Project participant used a table in section B.6.2 that does not match with the table in the PDD template.</p> <p>c) Project participant used a table in section B.7.1 that does not match with the table in the PDD template.</p> <p>d) The geographic coordinates shall presented as per UNFCCC format, in the decimal format with +/- sign only and should have a precision of 4 (four) decimals, such information shall be stated for each Wind turbineaa and the monitoring towers for the wind assessment.</p>		<p>c) Corrections have been made. Please see document: P121_VAL_125</p> <p>d) Corrections have been made. Please see document: P121_VAL_125</p> <p><b><u>Further request from DOE:</u></b> PDD used by project participant is version 04.0 for VVS and the last version available for VVS is 04.1. Project participant is requested to use the most updated version of PDD for VVS.</p> <p><b>CAR 4 is open.</b></p> <p><b><u>Further answer from the PP:</u></b> Corrections have been made in the PDD. Please see the document P121_VAL_144.</p>	
5	x		<p><b>CAR 5 (4.1 and 4.1b):</b> The scope of activities was not found in the description of the project activity. As per VVS the DOE shall confirm that the description of the proposed CDM project activity as contained in the PDD sufficiently covers all relevant elements, is accurate and that it provides the reader with a clear understanding of the nature of the proposed CDM project activity.</p> <p>4.1c) The wind farm will be located in General Bravo, in the state of Nuevo Leon.</p>		<p>Corrections have been made in the PDD.</p> <p>a) The scenario prior the starting date of the project activity has been described</p> <p>b) The description of the scope of activities has been described.</p> <p>c) The baseline scenario has been described according the methodology ACM 0002 version 12.3.0</p> <p>Please see document: P121_VAL_125</p>	<p>The scope of activities has been included in section A.1 of the PDD as requested by VVS 2.0.</p> <p><b>CAR 5 is closed.</b></p>
6		x	<p><b>CL 6:</b> a) The PP is requested to clarify the installed capacity as per stated in the CFE study.</p> <p>b) The PP is requested to refer the operational lifetime of the equipment.</p>		<p>a) The instaled capacity of the project according to the CFE study, is off 252 MW, in total in wich Ventika S.A. de C.V. will have 126.5 MW (P121_VAL_120).</p>	<p>PP has clarified the installed capacity as per stated in the CFE study and submitted evidence of the operational lifetime.</p>

				<p>b) The reference of the lifetime of the wind turbines has been added in the PDD (P121_VAL_125).</p> <p>Additionality in order to support the information please refer to documents.  P121_VAL_135 – Lifetime of Siemens turbine  P121_VAL_136 – Wind energy facts that show the typical lifetime of a wind turbine.</p> <p>In both supports is shown that the lifetime of the wind turbine is 20 years. This information was stated in the PDD.</p> <p><b><u>Further request from DOE:</u></b>  Document PP121_VAL_120 is a letter that mentions the total installed capacity of the wind to be constructed. Neither the document is the CFE study nor does it mention the capacity of Ventika wind farm (126.5 MW). Project participant is requested to provide the evidence where the installed capacity of the Ventika Wind Farm Project is stated. Lifetime has been properly supported by evidence.  <b>CL 6 is open.</b></p> <p><b><u>Further answer from the PP:</u></b>  Ventika S.A. de C.V. is in process to obtain the update for the CRE permit; this document will be send to the DOE in the moment that the CRE emit the permit.</p>	<b>CL 6 is closed</b>
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				<p><b><u>Further request from DOE (2):</u></b> PP shall clarify the reason for changing the installed capacity and is requested to confirm if this will not change the designed area for the wind farm.</p> <p><b><u>Further request from PP (2):</u></b>  The installed capacity was updated to 124.20 MW with the intention to be in accordance with the update of the generation permit of the CRE (document P121_VAL_152) that establishes an installed capacity up to 252.00 MW.</p> <p>And taking into account that the wind turbine has a nominal power of 2.3 MW by turbine, the maximum installed capacity that the project activity can have is of 124.20 MW (54 turbines).</p> <p>The designed area to the project activity will not change. As you can see in the table 1 of the PDD there are 54 turbines.</p> <p><b><u>Further request from DOE (3):</u></b>  It is noted that there will be stages and phases of power installation as described in pg. 10 of the PDD. The project description in Section A.1 needs to include the expected start of project supplying to the grid and the phases of</p>	
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				<p>project implementation for clarity.</p> <p>In PDD pg. 11, The intention for the statement <i>'An important issue is that the capacity factor for a wind farm is considerably lower than for the fossil fuel power plants. Project activity provides 37.90% of the output, therefore wind power should be considered as an additional energy source for the grid and not as the main one due to the uncertainty of availability implied'</i> in Section B.4 is not understood. Please request for rephrasing of sentence.</p> <p><b><u>Further request from PP (3):</u></b></p> <p>The project will not be implemented in stages; the commercial operation is expected to start on 15/07/2014 as is indicated in the section C of the PDD. The paragraph on page 10 was corrected.</p> <p>The sentence was rephrasing to be clearer.</p>	
7		x	<p><b>CL 7:</b> The PP is requested to clarify whether a FSR has been considered to to proceed with the investment in the project.</p> <p>In such case a wind study shall be provided in order to determine the feasibility of the zone.</p>	<p>The wind study is the following document: P121_VAL_117.</p> <p><b><u>Further request from DOE:</u></b></p> <p>The document provided by the PP consists in a mesoscale simulation in order to provide an estimate of the anticipated preliminary energy yield of</p>	<p>PP has clarified that no FSR was considered to proceed with investment in the project, the financial model submitted to the DOE was the one considered to proceed with the investment in the project</p> <p><b>CL 7 is closed</b></p>

				<p>the project. However, the same document states "It should be noted that while every effort was taken by GL GH to ensure the highest level of accuracy as possible in the energy yield calculation process, this wind resource assessment should not be used as the basis for financial calculations or final energy yield estimates. Mesoscale mapping of the wind resource is a very powerful prospecting tool but should only be used for that purpose. Long-term measurements from an on-site wind monitoring tower are the only effective means to accurately verify a site's potential". Therefore the study provided is considered to be a preliminary result of project's energy yield. Project participant is requested to present a formal FSR with long term measurements in order to get a more accurate estimation of energy yield.</p> <p><b>CAR 8 is open.</b></p> <p><b><u>Further answer from the PP:</u></b></p> <p>The plant load factor proportioned by Garrad Hassan from the document P121_VAL_117 was obtained using a simulation performed using the Canadian software program Anemoscope. This type of study provides a valid value according to the early development of this project that will be operating in 2014.</p>	
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				<p>Garrad Hassan visited the place of the project in August of 2011 with the objective of obtaining topographic and roughness characteristics of the area surrounding the project. This measurement is needed to perform the simulation. It is state in the document that due to the fact that this is a preliminary analysis a conservative scenario was use for the development of the simulation. With thiswe want to state that the values result of this assessment are conservative (38.7%).</p> <p>Other references of the conservativeness of this value are presented below:</p> <p>Also according to a publication done by “Global Wind Energy Council”<sup>4</sup> (P121_VAL_097) in 2010 regarding the wind potential in Mexico, we want to quote the following:</p> <p><i>“5. The northern and central regions of Mexico in the states of Nuevo León, Coahuila, Chihuahua and Sonora, with lower capacity factors in the range of 20% to 30%.”</i></p> <p>With this we want to clarify that the value of 38.7% that we are using is a value above the one expected for this zone, hence conservative.</p>	
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<sup>4</sup>[www.gwec.net/index.php?id=119](http://www.gwec.net/index.php?id=119)

					<p>Also another reference that the value we are using is conservative was obtained using the information of the “Atlas de Potencial Eólico de Nuevo León<sup>5</sup>” (P121_VAL_141) publish by the government .In page 22 detail information of the municipality of General Bravo (where the project is located regarding wind potential) we obtained the average wind velocity of the area: 6.3+/- 1.2 m/seg.</p> <p>In order to be conservative is used the higher value: Velocity= 7.5 m/seg.</p> <p>Using the Sales Power curve obtained from the turbines brochure (P121_VAL_128) in page 6 we obtained the value of the power produce without losses of our turbines in the area.</p> <p>Power without losses=900 kW=0.9MW</p> <p>We also know from the graph the maximum energy yield is 2,300 KW=2.3MW</p> <p>To obtained the capacity factor of the project=0.9MW/2.3MW=39.13% The value obtained with this calculation is of 39.13% ,comparing this number to the one obtained from Garrad Hassan</p>	
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<sup>5</sup> [http://200.23.43.29/eolico/Atlas\\_de\\_Potencial\\_Eolico\\_de\\_Nuevo\\_Leon.pdf](http://200.23.43.29/eolico/Atlas_de_Potencial_Eolico_de_Nuevo_Leon.pdf)

				<p>(38.7%) we can observe that is slightly above it. The reason of this is because this number does not consider energy losses due the transmission line, so it will be lower if it considers them. For this reason the value calculated by Garrad Hassan is a valid scenario and conservative because we are using the highest value of generation of the zone.</p> <p>The documents that support this information are the following:</p> <p>P121_VAL_142: Calculation of the load factor .</p> <p>P121_VAL_141:Atlas de potencial eólico de Nuevo León.</p> <p>P121_VAL_128:Turbines brochure.</p> <p><b><u>Further request from DOE (2):</u></b></p> <p>Based on good practices &amp; Wind Resource Assesment Handbook from <a href="http://www.nrel.gov/wind/pdfs/22223.pdf">http://www.nrel.gov/wind/pdfs/22223.pdf</a>, the wind study encompasses state-of-the-art measurement and analysis techniques at multiple heights on tall towers (e.g., 50 m) for a measurement duration of at least one year. Therefore, the PP is requested to clarify the reason to take only six months of measurement, considering that in the report from Garrad Hassan is stated “Due to the fact that only 6 months of measured wind data have been used there is still a high uncertainty linked to</p>	
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				<p>this preliminary energy yield estimation.”</p> <p><b><u>Further response from PP</u></b></p> <p>The year of physical measurements is not finished yet. For this reason and with the intention to assure the best estimation of the plant load factor, Garrad Hassan takes for their calculations 6 months of real measurements and the other 6 months are using the mesoscale simulation. Then, a completely year is used for the calculation of the plant load factor.</p> <p><b><u>Further request from DOE (3):</u></b> According to the preliminary study by Garrad Hassan, wind measurements started in late September 2011 and the study was delivered on September 2012, the PP is requested to clarify why not more measurements were taken into account for the capacity factor calculation</p> <p><b><u>Further response from PP (3):</u></b></p> <p>The measurements were taken into account for the period of September 2011 to March 2012 because the calculation of the plant load factor requires treatment in the information; and when the PP requested an updated version of the wind study (the request was made on August) Garrad Hassan</p>	
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				<p>had the calculations based in measurements until March.</p> <p><b><u>Further request from DOE (4):</u></b> PP shall state clearly if a FSR document was used for the investment decision</p> <p><b><u>Further response from PP (4):</u></b> At today the investment decision is not already taken place, a FRS is not available at this moment.</p> <p><b><u>Further request from DOE (5):</u></b> Since no FSR is available and the investment decision for the project activity has not been taken, project participant is requested to have a letter from Garrad Hassan that states that their wind study could be used for taking the investment decision and its accuracy is good enough to determine the wind feasibility of the zone.</p> <p><b><u>Further response from PP (5):</u></b>  As the starting date of the project activity is a future date, the investment decision was first defined as the date in which the investment analysis finalized (01/11/2011). However the project activity had updates in the type of the technology and in the hectares of the land after the start of Validation; therefore the wind study had to be updated and the investment decision</p>	
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					<p>date was changed to the date in which all the final inputs were obtained. It is important to remark that the IRR in the version 1 of the economic model (used for the PDD in public consultation, see document P121_VAL_088) and the final version (see document P121_VAL_157) is below than the benchmark value, this proves that the project activity needs the incentives of the CDM for its development.</p> <p>The investment decision is taken by Ventika and Garrad Hassan is not involved in it, therefore a letter from Garrad Hassan is not necessary.</p>	
8	x		<p><b>CAR 8:</b> In the GSP- PDD the methodology ACM0002 version 12.1.0 is referenced. The PP is requested to correct these inconsistencies, in order to be aligned with the most updated version.</p>		<p>Corrections have been made to methodology ACM0002 version 12.3.0.</p> <p>All the applicable conditions and monitoring variables are according this new methodology version.</p> <p>Please see document: P121_VAL_125</p>	<p>Project participant has made the corrections to PDD using a valid version of the approved methodology, ACM0002, version 12.3.0.</p> <p><b>CAR 8 is closed.</b></p>
9	x		<p><b>CAR 9:</b> a) As per guidelines for completing PDD the section B.1 shall include all the relevant tools used in the PDD. Furthermore, the applicability of each used tool shall be addressed in the section B.2.</p> <p>b) Date of completion of baseline study shall be stated in section B.4 of the PDD.</p>		<p>a) Corrections have been made. Please see document: P121_VAL_125</p> <p>b) Section B.8.8 do not exit any more in the new template of the PDD. So the date of completion of the baseline study was added in section B.4. Please see document: P121_VAL_125</p>	<p>a) All the relevant tools required by the approved methodology have been included in section B.1 of the PDD and the applicability criteria were addressed properly in section B.2.</p> <p>b) The date of completion of the baseline study has been included in section B.4.</p>

						<b>CAR 9 is closed.</b>
10	x		<p><b>CAR 10:</b> a) As part of the determination of baseline emissions and the investment analysis for project related to renewable energy generation, The plant load factor shall be defined ex-ante in the CDM-PDD, as per EB 48 annex 11.</p> <p>b) In accordance with the methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” is stated that for the most renewable power generation project activities, PE=0. However, it’s also clearly stated that some project activities may involve projects emission that can be significant, thus the PP shall clarify why these emissions were not accounted for the project activity.</p> <p>c) Table A.4.4 related to the total number of crediting year shall be corrected to 7 years instead 21 years.</p> <p>d) Table B.6.4 of the estimation of emission reductions shall be consistent with the ERs spreadsheet.</p>		<p>a) Corrections have been made. Please see document: P121_VAL_125 In section B.6.2 Data and parameters fixed ex ante.</p> <p>b) Corrections have been made in section B.6.1. in order to explain each of the project emissions (Hydro, Geothermal, Fuel Consumption) and the explanation why these emissions are depreciated of the project activity, Please see document: P121_VAL_125</p> <p>c) This table is no longer in section A.4.4. on the PDD new format. It is now in section B.9.2. Corrections have been made. Please see document: P121_VAL_125</p> <p>d) Corrections have been made. Please see document: P121_VAL_125 and the information of the CER’s calculation is in the document P121_VAL_105.</p> <p><b><u>Further request from DOE:</u></b></p> <p>a) Plant load factor was not found in section B.6.2 of PDD, neither in all the PDD. Project participant is requested to all the plan load factor to the PDD.</p> <p>b) Project participant has addressed all the alternatives provided by the methodology and have justified that none of them are applicable to the project activity.</p> <p>c) Section B.9.2 was not found in the PDD. The amended table was found in section B.6.4 of the PDD.</p> <p>d) Table of section B.6.4 has been found to be consistent with the ER</p>	<p>PP has corrected the requested issues regarding the estimation of emissions reduction</p> <p><b>CAR 10 is closed</b></p>

				<p>spreadsheet.</p> <p><b>CAR 10 is open.</b></p> <p><b><u>Further answer from the PP:</u></b></p> <p>a) The plant load factor has been included in section B.6.2. of the PDD. This is also mentioned on section A.3. <i>Technologies and/or measures</i> of the PDD.</p> <p><b><u>Further request from DOE (2):</u></b></p> <p>Energy annual generation and Emissions Reductions are not consistent between the Financial model, PDD and EF calculation. PP is requested to address consistency between these documents and their sources.</p> <p>Energy annual generation calculation has not sources in the EF calculation</p> <p><b><u>Further response from PP (2):</u></b></p> <p>The Financial model, PDD and EF calculation were corrected.</p> <p>The sources were added in the EF calculation.</p> <p><b><u>Further request from DOE (3):</u></b></p> <p>Installed capacity is also an input value and it shall be referenced. PP is requested to address it in the ER calculations</p> <p>Geographic coordinates format shall</p>	
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				<p>have +/- and maximum 4 decimals within the whole PDD</p> <p>The latest guideline for common practice analysis (EB 69) shall be utilized</p> <p><b><u>Further response from PP (3):</u></b></p> <p>The installed capacity was referenced in the ER calculations, see document P121_VAL_158.</p> <p>The coordinated were corrected in all the PDD.</p> <p>The latest guideline for common practice analysis (EB 69) was used. You can find the common practice calculation in the document P121_VAL_170 and the “Step 4. Common practice analysis” in the PDD was updated too.</p>	
11	x		<p><b>CAR 11:</b> Project participants shall provide a reliable evidence of the estimation on Electricity generation and whether the approach adopted is conservative reflecting the real situation of the site.</p>	<p>The estimation of the electricity generation where obtained from the following evidence: The wind study, where we obtained the capacity factor of 38.7%:P121_VAL_117</p> <p>The way to calculate the electricity generation was the following: Electricity generation = Power Plant Capacity * Capacity Factor*8760.</p>	<p>PP has addressed the electricity generation according to the installed capacity and the plant load factor validated by a third party. <b>CAR 11 is closed</b></p>

				<p>This two documents where use in the calculation of the electricicty generation as you can see in this document: P121_VAL_118</p> <p><b><u>Further request from DOE:</u></b></p> <p>The document provided by the PP consists in a mesoscale simulation in order to provide an estimate of the anticipated preliminary energy yield of the project. However, the same document states "It should be noted that while every effort was taken by GL GH to ensure the highest level of accuracy as possible in the energy yield calculation process, this wind resource assessment should not be used as the basis for financial calculations or final energy yield estimates. Mesoscale mapping of the wind resource is a very powerful prospecting tool but should only be used for that purpose. Long-term measurements from an on-site wind monitoring tower are the only effective means to accurately verify a site's potential". Therefore the study provided is considered to be a preliminary result of project's energy yield. Project participant is requested to present a formal FSR with long term measurements in order to get a more accurate estimation of energy yield.</p> <p><b>CAR 8 is open.</b></p> <p><b><u>Further answer from the PP:</u></b></p>	
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				<p>The plant load factor proportioned by Garrad Hassan from the document P121_VAL_117 was obtained using a simulation performed using the Canadian software program Anemoscope. This type of study provides a valid value according to the early development of this project that will be operating in 2014.</p> <p>Garrad Hassan visited the place of the project in August of 2011 with the objective of obtaining topographic and roughness characteristics of the area surrounding the project. This measurement is needed to perform the simulation. It is state in the document that due to the fact that this is a preliminary analysis a conservative scenario was use for the development of the simulation. With thiswe want to state that the values result of this assessment are conservative (38.7%).</p> <p>Other references of the conservativeness of this value are presented below:</p> <p>Also according to a publication done by “Global Wind Energy Council”<sup>6</sup> (P121_VAL_097) in 2010 regarding the wind potential in Mexico, we want to quote the following:</p>	
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<sup>6</sup>[www.gwec.net/index.php?id=119](http://www.gwec.net/index.php?id=119)

				<p><i>“5. The northern and central regions of Mexico in the states of Nuevo León, Coahuila, Chihuahua and Sonora, with lower capacity factors in the range of 20% to 30%.”</i></p> <p>With this we want to clarify that the value of 38.7% that we are using is a value above the one expected for this zone, hence conservative.</p> <p>Also another reference that the value we are using is conservative was obtained using the information of the “Atlas de Potencial Eólico de Nuevo León <sup>7</sup>” (P121_VAL_141) publish by the government .In page 22 detail information of the municipality of General Bravo (where the project is located regarding wind potential) we obtained the average wind velocity of the area: 6.3+/- 1.2 m/seg.</p> <p>In order to be conservative is used the higher value: Velocity= 7.5 m/seg.</p> <p>Using the Sales Power curve obtained from the turbines brochure (P121_VAL_128) in page 6 we obtained the value of the power produce without losses of our turbines in the area.</p>	
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<sup>7</sup> [http://200.23.43.29/eolico/Atlas\\_de\\_Potencial\\_Eolico\\_de\\_Nuevo\\_Leon.pdf](http://200.23.43.29/eolico/Atlas_de_Potencial_Eolico_de_Nuevo_Leon.pdf)

					<p>Power without losses=900 kW=0.9MW</p> <p>We also know from the graph the maximum energy yield is 2,300 KW=2.3MW</p> <p>To obtained the capacity factor of the project=0.9MW/2.3MW=39.13% The value obtained with this calculation is of 39.13% ,comparing this number to the one obtained from Garrad Hassan (38.7%) we can observe that is slightly above it. The reason of this is because this number does not consider energy losses due the transmission line, so it will be lower if it considers them. For this reason the value calculated by Garrad Hassan is a valid scenario and conservative because we are using the highest value of generation of the zone.</p> <p>The documents that support this information are the following:</p> <p>P121_VAL_142: Calculation of the load factor . P121_VAL_141:Atlas de potencial eólico de Nuevo León. P121_VAL_128:Turbines brochure.</p> <p><b><u>Further request from DOE(2):</u></b> The mesoscale simulation with the PLF of 38.7% mentioned above was not accepted by the DOE, but PP has submitted to the DOE the document "Preliminary Energy Yield Estimate for</p>	
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				<p>the Ventika I and II Wind FarmsW, dated 24/09/2012 where it is stated a PLF of 37.9%. Nevertheless, PP shall clarify why only 6 months or real measurements were taken into account.</p> <p><b><u>Further reponse from PP(2):</u></b></p> <p>The year of physical measurements is not finished yet. For this reason and with the intention to assure the best estimation of the plant load factor, Garrad Hassan takes for their calculations 6 months of real measurements and the other 6 months are using the mesoscale simulation. Then, a completely year is used for the calculation of the plant load factor.</p> <p><b><u>Further request from DOE(3):</u></b> Please refer to CL 7</p> <p><b><u>Further response from PP(3):</u></b></p> <p>The measurements were taken into account for the period of September 2011 to March 2012 because the calculation of the plant load factor requires treatment in the information; and when the PP requested an updated version of the wind study (the request was made on August) Garrad Hassan had the calculations based in measurements until March.</p>	
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12	x	<p><b>CL 12:</b> There are no risks or uncertainties identified in the PDD for the calculation of emission reduction. However, project participant has been requested to clarify their claim for not including coal under the low-cost/must run category and the result of this clarification may influence the emission reduction estimation.</p>	<p>A low-cost/must-run resources are defined as power plants with low marginal generation. They typically include hydro, geothermal, wind, low-cost biomass, nuclear and solar generation.<sup>8</sup></p> <p>Coal is not included under the low-cost/must-run category, because the Mexican coal-fired power plants cannot be considered must-run plants (for example, the largest coal-fired plant, Carbón II in Nava, in 2008 produced with a capacity factor of 71.5% - this being clearly over what a must-run plant would achieve).</p> <p>This is clarifying also in the PDD. P121_VAL_125.</p> <p><b><u>Further request from DOE:</u></b></p> <p>Low cost/must run resources are also power plants that are dispatched independently of the daily or seasonal load of the grid (EB 63, Annex 9, page 5, footnote 2). The Carbon II power plant mentioned by project participant has a capacity factor of 71.5% which implies that such power plant was operated the same percentage of time during 2008, thus that power plant could be considered as a must run resource. Also, there is no a justification of why the conclusion achieved for one coal power plant can be extended to all</p>	<p>PP has clarified that coal plants in Mexico are not part of the low cost/must run resources list.</p> <p><b>CL 12 is Closed</b></p>
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<sup>8</sup> <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v2.2.1.pdf> page 5

					<p>coal power plants in Mexico. The statement included in the PDD "Coal is not included under the low-cost/must run category, because the Mexican coal-fired power plants cannot be considered must-run plants" and the example provided are not considered to be a justification of project participant claim since there is no way to validate that statement. Project participant should properly explain why "Mexican coal-fired power plants cannot be considered must-run plants".</p> <p><b>CL 12 is open.</b></p> <p><b><u>Further answer from the PP:</u></b></p> <p>The operational costs of fossil fuel fired power plants in Mexico are much higher than the ones based on hydro, geothermal and wind resources. In case the grid would reduce its operation during a lower load demand period, the coal-fired power plants would be asked to undertake its function in order to maximize the utilization of hydro, geothermal and wind power plants that will consume renewable resources for electricity generation with lower costs. The evidence of the marginal costs for the production of energy from different energy sources is provided through the file P121_VAL_146 (page 46 section 7.1 table "Long-run marginal costs tariffs". Taking into consideration the latest</p>	
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					information it can be affirmed that fossil fuels power plants in Mexico can not be considered as low-cost/must-run resources.	
13		x	<p><b>CL 13:</b> a) The PP is requested to provide reliable evidence, and clarify whether the timeline as prior CDM consideration submitted in the PDD, is in line with the project implementation history, evidence regarding the starting date e.g. contracts with consultants for CDM/PDD/methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology to the CDM Executive Board, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat., in order to asses that the incentive from the CDM was seriously considered in the decision to proceed with the project activity.</p>		<p>This CL, has been assessed in B.5 of the document: P121_VAL_125. Evidence use for this clarification: P121_VAL_057:Mail of acceptance of the PRIOR from CDM Secretariat. P121_VAL_133:Memmorandum of the meeting for the evaluation of the project. P121_VAL_067:Photographs of the stakeholders meeting. P121_VAL_089: Attendance list, surveys of the stakeholders consultation.</p> <p><b><u>Further request from DOE:</u></b> Project participant has provided evidence of: (a) memorandum of the meeting for evaluating the project, (b) the acceptance mail of prior consideration of CDM sent by the UNFCCC Secretariat, (c) photographs and (d) attendance lists of the stakeholders meeting. However, there is no evidence of other milestones included in the timeline such as the electricity permission granted by CRE, the usufruct contract signed, and the e-mails sent to the Mexican DNA and the confirmation from Interministerial Commission on Climate Change of the reception project activity prior CDM consideration.</p> <p><b>CL 13 is open.</b></p>	<p>Reliable evidence regarding the prior CDM consideration was submitted to the DOE, And the PP has stated that date which has been agreed by the PP as the decision to proceed with the project activity on 01/11/2011, which it is the date when investment analysis were finalized. DOE</p> <p><b>CL 13 is closed</b></p>

				<p><b><u>Further answer from the PP:</u></b></p> <p>The evidence of missing milestones are presented below:</p> <p>P121_VAL_087:Permission granted by CRE  P121_VAL_044:Usufruct contract  P121_VAL_056: Email of the Mexican DNA.  P121_VAL_057:Email confirmation of the Prior CDM Consideration</p> <p><b><u>Further request from DOE:</u></b></p> <p>Date stated in the Permission granted by CRE is not consistent with the date stated in the PDD</p> <p><b><u>Further response from PP:</u></b></p> <p>The correction was made in the Table 6 of the PDD.</p>	
14	x		<p><b>CAR 14:</b> Timetable stated in the PDD, indicating relevant information regarding the development of the project and the main events related to the CDM development shall be corrected, estimated dates cannot be considered as a prior CDM consideration.</p>	<p>This CL, has been assessed in B.5 of the document: P121_VAL_125.</p> <p><b><u>Further request from DOE :</u></b></p> <p>In PDD pg 11, There is a gap between the event of ‘Electricity generating permit’ and the ‘Expected P/O for turbine’, i.e. between December 2011 and February 2013. Please update and include the following and ensure there is no long gap up to expected start date</p>	<p>Project participant has provided accurate dates.  <b>CAR 14 is closed.</b></p>

				<p>of project:</p> <ul style="list-style-type: none"> <li>b) FSR,</li> <li>c) Webhosting of PDD, and</li> <li>d) Site visit, and</li> <li>e) Approval of EIA.</li> </ul> <p><b><u>Further response from PP :</u></b></p> <p>The available data were included in the PDD table 6.</p> <p><b><u>Further request from DOE (2):</u></b> Project participant is requested to include in table 6 of the PDD the wind study carried out by Garrad Hassan since no FSR is available. <b>CAR 14 is open.</b></p> <p><b><u>Further response from PP (2):</u></b></p> <p>The table 6 was updated; it includes the date of the wind study.</p>	
15		x	<p><b>CL 15:</b> The PP is requested to clarify the difference related to the geographical location stated in the Prior consideration form with the stated PDD.</p>	<p>The different between the PRIOR and the PDD is because in the PRIOR the location was not exactly the central point of the project, and in the PDD this was corrected. Corrections have been made. Please see document: P121_VAL_125</p> <p><b><u>Further request from DOE:</u></b> Project participant is requested to demonstrate, e.g. using a satellite photo, that the location provided in the prior</p>	<p>The project activity geographical boundary was submitted to the DOE. Furthermore, PP has clarified that Prior Consideration is not needed as per PDD was published prior to the start date .</p> <p><b>CL 15 is CLOSED</b></p>

				<p>CDM consideration is inside project activity geographical boundaries.  <b>CL 15 is open.</b></p> <p><b><u>Further answer from the PP:</u></b>          Because the projects were such on an early stage, there was a confusion regarding the coordinates presented in the PRIOR form. The right coordinates for the project Ventika are : +25.7796 N -98.7231 W, and for Ventika II are: + 25.7489 N - 98.7355 W.</p> <p>This information has been corrected in the PDD (P121_VAL_144)</p> <p>According to the “Clean Development Mechanism Project Standard “ (Version 01.0)</p> <p><i>If the start date of a proposed CDM project activity, as determined in paragraph 57 , is prior to the date of publication of the PDD for the global stakeholder consultation, project participants shall demonstrate that the CDM benefits were considered necessary in the decision to undertake the project as a proposed CDM project activity.</i></p> <p>For our project the start date (February 2013 according to the PDD) is after the stakeholder consultation (which was from the 25 November to the 25 of December 2011) for this reason there is</p>	
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					<p>no need to demonstrate that the CDM benefits were considered necessary in the decision to undertake the project as a proposed CDM project activity.</p> <p>Nevertheless as requested the coordinates used for the Prior are shown in the last file and locate a point within the marked polygon. See file P121_VAL_147. And it is clearly seen that they are inside the project area.</p>	
16	x		<p><b>CAR 16:</b> Project participant is requested to state whether the individual or body that took the decision to proceed with the project activity have/had the authority to do so.</p>		<p>The document P121_VAL_133 is the evidence of the meeting that took place the 24 of march 2011, for the evaluation of the project. In this meeting Mr. Patricio Gonzalez -legal representative of Ventika S.A. (evidence of this statement can be found in P121_VAL_015), participate in the evaluation, and according to the las document he have the authority two make the decision about the developing of the project.</p> <p><b><u>Further request from DOE:</u></b></p> <p>The supporting document P121_VAL_015 was not found in the evidence package, therefore crosschecking based on documented evidence could not be carried out.</p> <p><b>CAR 16 is open.</b></p> <p><b><u>Further answer from the PP:</u></b></p> <p>Page 19 it is establish that Mr. Patricio Gonzalez Villareal is the legal</p>	<p>PP has clarified that Patricio Gonzalez have the authority to take decision to proceed with the project activity and evidence was submitted.</p> <p><b>CAR 16 is closed</b></p>



					representative of the company.  The evidence can be found in : P121_VAL_015.	
17		x	<b>CL 17:</b> Due to the time lapse between the starting of the validation (25th November 2011) and the expected starting date of the project activity (February 2013), project participant must clarify how they will commit funds to the project in advance of receiving a positive validation opinion.		As it was explained in the validation visit. The project will not be develop if the project is not register as CDM.CEMEX wich is part of Ventika S.A. , have its own internat procedures related to the develop of new projects. The CAPEX will not be approve until the project has the CDM registration.	Project participant has explained that there are no committed funds with project activity unless that project achieves CDM registration. <b>CL 17 is closed.</b>
18	x		<b>CAR 18:</b> The PP is requested to remove the date stated in section C.2.2..		Corrections have been made. Please see document: P121_VAL_125	PDD has been amended in section C.2..2. <b>CAR 18 is closed.</b>
19	x		<b>CAR 19:</b> Regarding the presented investment analysis, the PP is requested to clarify or correct the following issues accordingly:  a) The assessment period varies from a 2011 – 2031 scenario with CERs, to a 2013 – 2033 scenario without CERs, thus these inconsistencies shall be corrected by the PP.		Corrections have been made. Please see document: P121_VAL_118 <b><u>Further request from DOE:</u></b> The PP is requested to clarify the following points: a) Change in the total investment currently 281,658,234 USD instead 336,113,904 USD as per stated in the GSP-PDD. b) Change in the installed capacity currently 126.5 instead 126.4 as per stated in the GSP-PDD. c) Change in the No. of Turbines currently 55 instead 79 as per stated in the GSP-PDD. d) Change in the total area of the land 7,600 ha instead 7,000 ha as per stated in the GSP-PDD. e) Change in the capacity factor currently 38.70% instead 45% as per stated in the GSP-PDD.	PP has corrected the inconsistencies on the investment analysis and clarified the major changes. <b>CAR 19 is closed</b>

					<p><b><u>Further request from the PP:</u></b></p> <ul style="list-style-type: none"> <li>a) The change in the investment was due to the fact that the turbines were changed to be Siemens SWT 2.3 MW.</li> <li>b) The change in the installed capacity is because of the change in the turbines (2.3 MW instead of 1.6 MW).</li> <li>c) This is also because the change in the turbines, the new turbines have a higher capacity (2.3 MW), for this reason we need less.</li> <li>d) The change in the total area was because, as it was explained in the validation visit a small portion of land was still being in the process of being bought. We update the area because the process was finished.</li> <li>e) The capacity factor first used, as it was explained in the validation visit, was an approximation done by the technicians. The value of 38.7% is a study develop by Garrad Hassan ( a third party).</li> </ul> <p><b><u>Further request from DOE(2):</u></b> PP is requested to indicate in table in section B.5, the event that indicates the investment decision date.</p>	
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					<p>As per guideline for completing CDM PDD shall be in the format DD/MM/YYYY, PP shall revise the whole document.</p> <p>PP is requested to provide a vertical analysis in which the scenario where the benchmark is reached with the investment, operating costs and the capacity factor. In doing so, PP shall justify why this scenario would be improbable.</p> <p><b><u>Further response from PP (2):</u></b></p> <p>The starting date of the project activity was added in the Table 6 of the PDD. The investment decision is not happen yet, for this reason the investment analysis was made taking into account the commencement of validation (25/11/2011)</p> <p>The dates in the PDD (section C) were corrected according the guideline for completing CDM PDD.</p> <p>A break even analysis was elaborated in the Financial model (spreadsheet Break Even Analysis) and the results are the following:</p> <p>Investment. To reach the benchmark the investment shall diminish in 17.70% (49,270,180 USD). This is not probably to happen because all the quotes are</p>	
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				<p>properly supported; on the contrary it is probably an investment increase because it will take place in 2013 and the prices will increase at least the inflation.</p> <p>Operating Costs. To reach the benchmark the operating costs shall diminish in 73.50% (8,322,584 USD). It is not probably to happen because in the case of the land rent cost there is a signed contract, in the case of O&amp;M and transmission costs depends directly to the number of turbines and the generation, respectively and they are already established.</p> <p>Capacity Factor. To reach the benchmark the capacity factor shall increase in 17.20% (44.42% of capacity factor). It is not probably to happen because this is a high capacity factor even for the zones as Oaxaca that has the higher potential of wind in the country.</p> <p><b><u>Further request from DOE(3):</u></b> PP has addressed the input values of the investment analysis at the time of the commencement of the validation (25/11/2011). Therefore, PP is requested to submit the reference where it is stated that this can be suitable or appropriate.</p> <p><b><u>Further response from PP(3):</u></b></p>	
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				<p>Please refer to the document P121_VAL_172. It is an answer from UNFCCC about a consultation of the input values of the investment analysis when a project activity does not have yet defined the investment decision. UNFCCC says the following: “In the context of such a scenario the investment analysis should be validated to be correct at the point of the investment decision or the commencement of validation if no clear investment decision has been made.”</p> <p><b><u>Further request from DOE(4):</u></b> PP shall further explain If the investment decision has not yet happened, what the meeting for the evaluation of the project Ventika wind farm on 24/03/2011 is about.</p> <p>PP shall ensure that ALL input values were taken at the moment of investment decision date in the investment analysis.</p> <p><b><u>Further response from PP (4):</u></b> The meeting was mainly for select the location of the project activity and to discuss the importance of the CDM in the development of the project activity, with this is proved that the project considers the register of the CDM from the beginning. In this meeting was not decided the investment decision; see</p>	
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				<p>document P121_VAL_133.</p> <p>As the investment decision has not been taken yet, the reference date for the economic model is the start of the Validation process. You can see in the economic model (see document P121_VAL_157) all dates for each input data. The dates that are after to the start of the Validation process are the following:</p> <ul style="list-style-type: none"><li>- The turbine and O&amp;M quotation. This was because the model of the turbine was updated in February 2012, then the costs need to be updated too.</li><li>- A portion of land was added in January 2012 (600 ha) because until that date the PP had the certain of the use of these lands.</li><li>- The plant load factor was updated in September 2012, this was because the DOE requested more assurance in the wind study and Garrad Hassan delivered a new version of the wind study until that date.</li></ul> <p>You can see that the updates in the economic model were necessary to be in accordance with the project activity and for comply with the same requirements of the Validation Process.</p>	
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					<p><b><u>Further request from DOE(5):</u></b></p> <p>Even some parameters have been revised after the decision, the original values still have to be used in the IRR calculation. The changes to the values however will still need to be included and discussed in the PDD total investment analysis to show that the IRR is still below the benchmark after the initial changes. PP is requested to revise it</p> <p><b><u>Further response from PP (5):</u></b></p> <p>The updated investment decision is when all the final inputs for the economic model were obtained. In the Sub-step 2c. of the PDD was included a paragraph explaining that the benchmark cannot be reached in any scenario, consistently proving that the project activity needs the CDM incentives.</p>	
20		x	<p><b>CL 20:</b></p> <ul style="list-style-type: none"> <li>a) The PP is requested to clarify why the Investment and construction of road is depreciated.</li> <li>b) The PP is requested to clarify whether the project will be 100% financed with equity (please refer to comments provided).</li> </ul>		<p>Corrections have been made. Please see document: P121_VAL_118. In the document is shown the depreciation of the construction of road.</p> <p><b><u>Further request from DOE:</u></b></p> <p>Considering that the model was developed 100% of equity. The PP is requested to clarify how the project is in</p>	<p>PP has clarified that project activity will be 100% equity and benchmark has been calculated with a free risk bond rate plus a country risk premium, which are standards in the financial market.</p> <p><b>CL 20 is CLOSED</b></p>

				<p>compliance with “Guidelines on the assessment of investment analysis version 05.0 paragraph17.</p> <p><b><u>Further request from the PP:</u></b></p> <p>Fist we will like to clarify that the project is being evaluated with project IRR, because the project do not have financing. The evidence can be found in P121_VAL_149.</p> <p>According to what it is state in the “Guideline on assessment of investment analysis” version in paragraph 17.</p> <p>We will like to clarify that the project is not using an internal benchmark, because Ventika S.A. de C.V. is a new company that was created in 2011 and this is the first project they want to develop .</p> <p>The use of an internal benchmark only applies to companies that have experience developing project with similar characteristics. And for the project participant, that is not the case.</p>	
21	x		<p><b>CAR 21:</b> Geographical boundaries of the project activity were identified the table included in the common practice analysis. However, the table is not complete (the right side of the table is not visible), thus the PDD shall be corrected by the PP accordingly.</p>	<p>Corrections have been made. Please see document: P121_VAL_125</p> <p><b><u>Further request from DOE:</u></b></p> <p>PP shall include a statement of the</p>	<p>Project participant has properly corrected the table in the common practice analysis. <b>CAR 21 is closed.</b></p>



					geographical boundary in the PDD  <b><u>Further request from PP:</u></b>  It was included in the Step 4 of the PDD.	
22	x		<b>CAR 22:</b> PDD does not provide an explanation in the common practice analysis section why the region was selected and deemed more appropriate, thus the PDD shall be corrected by the PP accordingly.		Corrections have been made. Please see document: P121_VAL_125	Project participant has properly explained why region was selected and deemed more appropriate. <b>CAR 22 is closed.</b>
23	x		<b>CAR 23:</b> As per guidelines for completing the section B.7.1 and annex 4 of the PDD shall include the following information as part of the QA/QC procedures: <ul style="list-style-type: none"> <li>Place where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a specification which accepted industry standards or national or international standards will be applied.</li> <li>Procedures of the data storage.</li> <li>Information regarding the back-up meter.</li> <li>Calibration procedures including the frequency of the measurement equipment's.</li> <li>Accuracy class should be included in order to determine of measurement method is appropriate.</li> </ul>		Corrections have been made. Please see document: P121_VAL_125. This information is included in section B.7.1. Data and parameters to be monitored.	Project participant has addressed properly: (a) the place where data will be measured including a statement related to whose regulations metering devices must fulfill, (b) data storage, (c) information of main and back up meters, (d) calibration to be carried out in meters and (e) accuracy class of meters. <b>CAR 23 is closed.</b>
24	x		<b>CAR 24:</b> Project participant is requested to add		Corrections have been made. Please see	Project participant has added

			detail description of the monitoring plan indicating responsibilities and institutional arrangements for data collection and archiving, indicating what sort of monitoring practices project participant will be implemented.		document: P121_VAL_125	the responsibilities and institutional arrangements for data collection and archiving indicating what type of monitoring practices will be implemented. <b>CAR 24 is closed.</b>
25	x		<b>CAR 25:</b> No procedures have been identified for the day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation.		Corrections have been made. Please see document: P121_VAL_125 <b><u>Further request from DOE:</u></b> The procedures were not found in the amendments to the monitoring plan. <b>CAR 25 is open.</b>  <b><u>Further request from the PP:</u></b> Corrections have been made in section B.7.3. Please see document: P121_VAL_144	Procedures regarding the data handling were amended in the PDD <b>CAR 25 is closed</b>
26	x		<b>CAR 26:</b> No provisions had been included in the PDD, thus relevant information shall be addressed accordingly.		Corrections have been made. Please see document: P121_VAL_125	The provisions were included in the PDD. <b>CAR 26 is closed</b>
27	x		<b>CAR 27:</b> The PP is requested to include in the PDD the Organization chart regarding the management of the CDM project.		Corrections have been made. Please see document: P121_VAL_125	Project participant included the organization chart related with the CDM project management. <b>CAR 27 is closed.</b>
28	x		<b>CAR 28:</b> There are no procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions, thus the PDD shall be corrected by the PP.		The PDD has been corrected, please refer to section B.7.3 of the PDD. Please see document: P121_VAL_125 <b><u>Further request from DOE:</u></b> Procedures for emergency preparedness of cases where emergency can cause unintended emissions were not found. <b>CAR 28 is open.</b>	PP has stated in the monitoring plan the emergency preparedness for cases where emergencies can cause unintended emissions. <b>CAR 28 is closed</b>

					<b><u>Further request from the PP:</u></b> Corrections have been made in section B.7.3. Please see document: P121_VAL_144	
29	x		<b>CAR 29:</b> Data archiving is stated to be in electronic way. However, archiving period shall be added in the PDD monitoring plan.		Corrections have been made. Please see document: P121_VAL_125  Data archiving time has been added to the monitoring plan of the PDD. <b>CAR 29 is closed.</b>	
30	x		<b>CAR 30:</b> PDD states natural resources conservation as an additional environmental benefit. Project participant states that environmental benefits will be provided in accordance to SEMARNAT (Ministry of Environment and Natural Resources) environmental program. However, indicators are not included in the PDD.		The indicators were not included because the resolution of the Environmental Assessment from SEMARNAT has not been received. Nevertheless we have the latest receipt from SEMARNAT of the approval of the Environmental Impact Assessment of the project with : P121_VAL_129  <b><u>Further request from DOE:</u></b> Corrective Action Request will remain open until SEMARNAT issues the environmental approval of the project activity. <b>CAR 30 is open.</b>  <b><u>Further information from the PP:</u></b> Ventika S.A. de C.V. is in process to obtain the SEMARNAT permit, it will be provided to the DOE in the moment that Ventika has it.  <b><u>Further request from DOE (2):</u></b> Corrective Action Request will remain open until SEMARNAT issues the environmental approval of the project	PP has addressed the environmental benefits accordance to SEMARNAT and evidence was submitted to the DOE <b>CAR 30 is closed</b>

					activity.  <b><u>Further response from PP (2):</u></b>  The environmental permit was granted by SEMARNAT on October 08, 2012 (document P121_VAL_145). The PDD section D was updated with the information of the environmental permit.	
31	x		<b>CAR 31:</b> As per VVS 3.0 paragraph 138, Invitation, participants list, and summary of the comments received in the PDD shall be provided to the DOE.		The information requested can be find in the following documents: Participants list: P121_VAL_025 Presentation use in the meeting: P121_VAL_028 Photographs of the Stakeholders consultation: P121_VAL_067. Evidence of the Stakeholder consultation of the municipal authority: P121_VAL_111. It is important to clarify that the consultation invitation was done by telephone, due to the fact (as it is explained in the PDD section D) , the population in the area is very scarce.	Documents P121_VAL_025 and P121_VAL_111 were not found in the documents package sent by project participant, however the information of those documents was found in document P121_VAL_089. <b>CAR 31 is closed.</b>
32	x		<b>CAR 32:</b> Regarding the Stakeholders' the PP is requested to: a) Describe in the PDD the means of invitation and communication with the stakeholders. Evidence of the receipt of the questionnaires shall be submitted to the DOE.		Corrections have been made. Please see document: P121_VAL_125. The information requested can be find in the following documents: Inquiry answered by the attendants: P121_VAL_089.	The project participant has described the invitation means to the stakeholders consultation as well as the evidence of questionnaires applied to local stakeholders. <b>CAR 32 is closed.</b>
33	x		<b>CAR 33:</b> The latest approval of the Environmental Impact Assessment shall be provided to the DOE, in accordance with current		The information requested can be find in the following documents: Latest receipt of the approval of the	Approval of the EIA from the SEMARNAT was submitted to the DOE

			technical characteristics of the project activity.		<p>Environmental Impact Assessment of the project: P121_VAL_129</p> <p><b><u>Further request from DOE:</u></b> Corrective Action Request will remain open until SEMARNAT issues the environmental approval of the project activity. <b>CAR 33 is open.</b></p> <p><b><u>Further information from the PP:</u></b> Ventika S.A. de C.V. is in process to obtain the SEMARNAT permit, it will be provided to the DOE in the moment that Ventika has it.</p> <p><b><u>Further request from DOE(2):</u></b> Environmental approval of the project activity has not been submitted to the DOE. <b>CAR 33 is open.</b></p> <p><b><u>Further information from the PP:</u></b>  The environmental permit was granted by SEMARNAT on October 08, 2012 (document P121_VAL_145). The PDD section D was updated with the information of the environmental permit.</p>	<b>CAR 33 is closed</b>
34		X	<p><b>CL 34</b></p> <p>b. The evidences to eliminate alternatives need to be provided and validated for :</p> <ul style="list-style-type: none"> <li>• Alternative 1, and</li> <li>• Alternative 3.</li> </ul>	PDD p. 13	<p>The main evidence to eliminate the alternative 1 is the economic model (see document P121_VAL_157); the project IRR is lower than the benchmark, then will be very difficult to develop the wind farm without the CDM incentive.</p>	

			<p>b) Conclusion for sub-step 1(b) is unclear.</p>	<p>Moreover in the common practice calculation you can see that the operative wind farms in Mexico have the support of the CDM.</p> <p>The evidence to eliminate the alternative 3 is the “Electricity Sector Outlook 2010-2025 (Prospectiva del sector eléctrico 2010-2025)” page 160 (see document P121_VAL_093). In the table 40 the Subtotal Noreste where is localized the project does not have increase in the hydro for the next years; and biomass is not included in the forecasting.</p> <p>The conclusion of sub-step 1(b) was corrected.</p> <p><b><u>Further request from the PP:</u></b> Project participant has provided the evidence that supports the elimination of alternatives 1 and 3. This evidence is considered to be adequate. However, sub-step 1b does not explicitly conclude whether project activity is consistent with mandatory laws and regulations.</p> <p><b><u>Further response from the PP(2):</u></b> The sub-step 1b was updated in the PDD.</p>	
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35		X	<p><b>CL 35</b></p> <p>In the investment analysis:</p> <ul style="list-style-type: none"> <li>• Formula for the calculation of benchmark value need to be shown in the PDD,</li> <li>• Source for the input values in Table 8 need to be included/referenced in the PDD,</li> <li>• For sensitivity analysis, please include the discussion in the PDD in accordance with the assessment in the spreadsheet. Include discussion on likelihood of the variation.</li> </ul>	PDD p. 13-16	<p>The formula of benchmark calculation was included in Sub-step 2b of the PDD.</p> <p>The table 8 was referenced in the PDD.</p> <p>The discussion on likelihood of the variation was included in the PDD section Sub-step 2d. Sensitivity Analysis.</p>	<p>Project participant has amended properly the PDD by including the benchmark formula, the source of the input values in table 8 and the discussion of the sensitivity analysis.</p> <p><b>CL 35 is closed.</b></p>
36		X	<p><b>CL 36</b></p> <p>Evaluation of ‘Common practice analysis’:</p> <ul style="list-style-type: none"> <li>• Please indicate source of information,</li> <li>• Step 2 (a) requires discussion on applicable geographical area which is missing in the PDD,</li> <li>• Table 13: <ul style="list-style-type: none"> <li>iii. Please include the start date of the plants in the table,</li> <li>iv. Please use only English words</li> </ul> </li> </ul>	PDD p. 17	<p>The sources of information were included in the table 13 of the PDD.</p> <p>The discussion on the applicable geographical area was added on the Step 4. Common practice analysis.</p> <p>The start date of the plants is not public available, see Table 5 p. 203 of the “Prospektiva del sector eléctrico 2010-2025”. But all of them already are installed and in functions because as the name says, they are the main plants in operation and the document was published by SENER before to the global stakeholder consultation of the project activity.</p> <p>The table was corrected to the English.</p>	<p>PP has indicated the source of information for the common practice analysis, has addressed discussion on applicable geographical area and PP has included the start date of the plants in the table 13, all this in English</p> <p><b>CL 36 is closed</b></p>

					<p><b><u>Further request from DOE:</u></b> Project participant has included the source of information for the common practice analysis, a brief discussion on the applicable geographical area and have amended table 13 by using only English words. However the start date of plants in table was not included.</p> <p><b><u>Further response from PP:</u></b>  The table 13 was updated in the PDD, including all the publicly available starting dates and fulfilling the requisites of the latest version of the guidelines of the common practice</p>	
37		X	<p><b>CL 37</b></p> <ol style="list-style-type: none"> <li>Appendix 4 of the PDD has to show the step-wise calculation for <math>EF_{grid}</math> transparently.</li> <li>LCMR demonstration for selection of Simple OM calculation is also requested to be included.</li> </ol>	PDD pg 48	<p>The sources of information were included in the table 13 of the PDD.</p> <p>The discussion on the applicable geographical area was added on the Step 4. Common practice analysis.</p> <p>The start date of the plants is not public available, see Table 5 p. 203 of the “Prospectiva del sector eléctrico 2010-2025”. But all of them already are installed and in functions because as the name says, they are the main plants in operation and the document was published by SENER before to the global stakeholder consultation of the project activity.</p> <p>The table was corrected to the English.</p>	<p>The appendix 4 of the PDD shows the step-wise calculation for <math>EF_{grid}</math> transparently and LCMR demonstration for selection of Simple OM was included.</p> <p><b>CL 37 is closed</b></p>



					<p><b><u>Further request from DOE:</u></b> Project participant has included the source of information for the common practice analysis, a brief discussion on the applicable geographical area and have amended table 13 by using only English words. However the start date of plants in table was not included.</p> <p><b><u>Further response from PP:</u></b>  The table 13 was updated in the PDD, including all the publicly available starting dates and fulfilling the requisites of the latest version of the guidelines of the common practice.</p>	
38	X		<p><b>CAR 38</b> Refer Grid emission factor calculation, worksheet 'EF<sub>Grid OM</sub>':</p> <ul style="list-style-type: none"> <li>Table 15 in PDD is not consistent with worksheet rows 38&amp;39. Please correct accordingly.</li> <li>Cell A28 indicates 'Internal' as the type of fuel. Please indicate what kind of fuel it is,</li> <li>The unit indicated in cell A43 is not GWh but the figures are directly added to MWh without using factor. Please check.</li> </ul>	PDD pg. 20 & EFgrid spreadsheet	<p>The table 15 in PDD was corrected according to the economic model.</p> <p>Cell A27 is not a type of fuel; it is a type of technology (internal combustion).</p> <p>The correct unit is MWh, it was corrected in the economic model</p>	<p>PDD and EF spreadsheet have been properly corrected. <b>CAR 38 is closed.</b></p>
39	X		<p><b>CAR 39</b> Equation 5 of the BM calculation and it's demonstration in Appendix 4 is not in accordance with the tool to calculate emission</p>	PDD pg. 23, 32 & 50	<p>The Appendix 4 was corrected in the PDD.</p>	<p>Appendix 4 of the PDD has been amended. <b>CAR 39 is closed.</b></p>

			factor for an electricity system.			
40	X		<b>CAR 40</b> Please revise Section F of the PDD Table 13, as the LOAs have already been provided to the DOE.	PDD pg. 43	The paragraph was corrected.	PP has addressed that LoAs were delivered already to the DOE in section F <b>CAR 40 is closed</b>
41		X	<b>CL 41</b> PP shall clarify if methodology would be updated to the latest version.	Methodology	It is not necessary to update the methodology; the projects with this methodology can Requests for registration until 11 Jan 2013.	Project participant has clarified that up to this moment it is not necessary to update the PDD to the last version of the methodology. <b>CL 41 is closed.</b>
42	X		<b>CAR 42</b> In section B.6.3 PDD states that details of the OM calculation are found in Appendix 3, however this information should be found in Appendix 4.	PDD section B.6.3	The PDD was updated.	PP has updated the section B.6.3 to be consistent with the referenced Appendix. CAR 42 is closed

**Table 3: List of forward action requests (FARs)**

Validation / Verification Standard

(27) The DOE shall raise a forward action request (FAR) during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.

FAR number	Reference	Summary of project owner response	Validation team conclusion
FAR01: During the Validation stage, the project is in early stage of its implementation and the start date of the project is not fixed during this stage. During 1st verification, verifying DOE shall check project implementation in accordance with the PDD.		<del>The DOE in the Verification stage will be the responsible of prove that the implementation of the project activity is according to the established in the PDD.</del> The Project will be implemented as described in the PDD. We agree on FAR01 and that the DOE selected for the 1 <sup>st</sup> verification, shall check the project implementation in accordance with the PDD.	The issue in FAR will be addressed and closed at the verification phase



## Appendix B

### Certificates of Competence

## Qualification

Lemus Martinez-Estape, Rafael Arturo /

## Emission Trading

### United Nations Framework Convention on Climate Change

Auditor No.:  
(AuditorenRegNr)

Appointed:  
(Zugelassen)

☒ ja

Qualification Level:  
(Qualifikationsstufe)

Lead Auditor

External:  
(Externer)

☐ ja

Add. reviewer:  
(Zusätzlicher Prüfer)

☐ yes

EAC Scopes:  
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)  
CDM 13 - Waste handling and disposal

Add. qualification:  
(zus. Qualifikation)

First Appointment:  
(Erstberufung)

06/07/2011

Valid to:  
(Gültig bis)

05/07/2014

Remarks:

Valid for TA 1.2, 13.1

Languages:

Spanish  
English

## Experience Exchange

Date

Location

Remarks

Accreditation(s)

## Monitoring

Latest Monitoring:  
(letzte Beurteilung)

Next Monitoring:  
(nächste Beurteilung)

Remarks:

[View / Edit Monitoring](#)

## History of scope allocation

Date: 2011-07-07  
Change: EAC CDM, CDM added  
By: Manfred Brinkmann  
Reason: Valid for TA 1.2, 13.1

#### History

Created:	30/06/2011 09:08:28 a.m.	Luis Javier Cerecedo/Mex/TUV
Modified:	10/05/2012 03:39:17 p.m.	Arturo Lemus/Mex/TUV
	10/05/2012 03:35:53 p.m.	Arturo Lemus/Mex/TUV
	08/05/2012 03:53:10 p.m.	Arturo Lemus/Mex/TUV
	03/05/2012 10:33:34 p.m. ZE8	
	07/07/2011 03:42:19 p.m. ZE9	
	07/07/2011 03:39:54 p.m. ZE9	
	30/06/2011 09:08:42 a.m.	

## Qualification

Avendaño Reyes, Guadalupe /

## Emission Trading

### United Nations Framework Convention on Climate Change

Auditor No. :  
(AuditorenRegNr)

Appointed:  
(Zugelassen)

☒ ja

Qualification Level:  
(Qualifikationsstufe)

Lead Auditor

External:  
(Externer)

☐ ja

Add. reviewer:  
(Zusätzlicher Prüfer)

☐ yes

EAC Scopes:  
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)  
CDM 13 - Waste handling and disposal

Add. qualification:  
(zus. Qualifikation)

First Appointment:  
(Erstberufung)

04/03/2010

Valid to:  
(Gültig bis)

03/03/2013

Remarks:

Valid for TA 1.2, 13.1

Languages:

Spanish  
English

## Experience Exchange

Date

Location

Remarks

Accreditation(s)

## Monitoring

Latest Monitoring:  
(letzte Beurteilung)

Next Monitoring:  
(nächste Beurteilung)

Remarks:

[View / Edit Monitoring](#)

## History of scope allocation

Date: 2010-03-05  
Change: EAC CDM, CDM, CDM added  
By: Manfred Brinkmann  
Reason:

#### History

Created:	28/01/2010 08:30:36 a.m.	Luis Javier Cerecedo/Mex/TUV
Modified:	04/02/2011 11:52:14 a.m. ZE9	Manfred Brinkmann/Jpn/TUV
	04/02/2011 11:51:58 a.m. ZE9	Manfred Brinkmann/Jpn/TUV
	04/02/2011 11:49:32 a.m. ZE9	Manfred Brinkmann/Jpn/TUV
	14/09/2010 03:59:20 p.m. ZE9	Manfred Brinkmann/Jpn/TUV



## Qualification

Bracamontes Hinojosa, Héctor /

## Emission Trading

### United Nations Framework Convention on Climate Change

Auditor No.:  
(AuditorenRegNr)

Appointed:  
(Zugelassen)

☒ ja

Qualification Level:  
(Qualifikationsstufe)

Trainee

External:  
(Externer)

☐ ja

Add. reviewer:  
(Zusätzlicher Prüfer)

☐ yes

EAC Scopes:  
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)  
CDM 13 - Waste handling and disposal

Add. qualification:  
(zus. Qualifikation)

First Appointment:  
(Erstberufung)

02/01/2011

Valid to:  
(Gültig bis)

13/11/2014

Remarks:

TA 1.2, 13.1

Languages:

Spanish  
English  
French  
German

## Experience Exchange

Date

Location

Remarks

Accreditation(s)

## Monitoring

Latest Monitoring:  
(letzte Beurteilung)

Next Monitoring:  
(nächste Beurteilung)

Remarks:

[View / Edit Monitoring](#)

### History of scope allocation

Date: 2012-10-08  
Change: EAC CDM, CDM added  
By: Praveen Urs  
Reason:

### History

Created:	17/11/2011 12:02:26 p.m.	Luis Javier Cerecedo/Mex/TUV
Modified:	09/10/2012 02:51:08 p.m.	Hector Bracamontes/Mex/TUV
	08/10/2012 06:12:34 p.m. ZE8	Praveen Urs/Chn/TUV
	08/10/2012 06:11:39 p.m. ZE8	Praveen Urs/Chn/TUV
	15/03/2012 04:28:54 p.m.	
	15/03/2012 04:28:47 p.m.	
	14/03/2012 04:02:48 p.m. ZE8	
	17/11/2011 12:02:38 p.m.	

### Export to ICMS

Last Export:

## Qualification

Muniandy, Kamala Devi /

## Emission Trading

### United Nations Framework Convention on Climate Change

Auditor No.:  
(AuditorenRegNr)

Appointed:  
(Zugelassen)

☒ ja

Qualification Level:  
(Qualifikationsstufe)

Lead Auditor

External:  
(Externer)

☐ ja

Add. reviewer:  
(Zusätzlicher Prüfer)

☒ yes

EAC Scopes:  
(EAC Branchen)

CDM 05 - Chemical industry  
CDM 12 - Solvents use  
CDM 13 - Waste handling and disposal  
CDM 11 - Fugitive emissions from production and consumption of  
halocarbons and sulphur hexafluoride

Add. qualification:  
(zus. Qualifikation)

First Appointment:  
(Erstberufung)

02/09/2012

Valid to:  
(Gültig bis)

01/09/2015

Remarks:

TA 5.1/11.1/12.1  
TA 13.1

Languages:

English  
Indonesian  
malay  
Cantonese  
Mandarin

## Experience Exchange

Date

Location

Remarks

Accreditation(s)

## Monitoring

Latest Monitoring:  
(letzte Beurteilung)

Next Monitoring:  
(nächste Beurteilung)

Remarks:

### History of scope allocation

Date: 2012-10-15  
Change: EAC CDM, CDM, CDM, CDM added  
By: Praveen Urs  
Reason:

### History

Created:	24/09/2012 10:51:19 a.m. ZE8	KamalaDevi Muniandy/Chn/TUV
Modified:	15/10/2012 05:10:44 p.m. ZE8	Praveen Urs/Chn/TUV
	24/09/2012 10:51:37 a.m. ZE8	KamalaDevi Muniandy/Chn/TUV

### Export to ICMS

Last Export:

## Qualification

Deng, Cuiping /

## Emission Trading

### United Nations Framework Convention on Climate Change

Auditor No. : (Auditoren RegNr)			
Appointed: (Zugelassen)	<input checked="" type="checkbox"/> ja	Qualification Level: (Qualifikationsstufe)	
External: (Externer)	<input type="checkbox"/> ja	Add. reviewer: (Zusätzlicher Prüfer)	<input checked="" type="checkbox"/> yes
EAC Scopes: (EAC Branchen)	CDM 01 - Energy industries (renewable - / non-renewable sources) CDM 05 - Chemical industry CDM 11 - Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride CDM 12 - Solvents use		
Add. qualification: (zus. Qualifikation)			
First Appointment: (Erstberufung)	10/09/2010	Valid to: (Gültig bis)	10/08/2013

Remarks: Appointed as Technical Reviewer for TA 1.2 TA 5.1, 11.1, 12.1 and TA 4.1, 4.5, 8.2, 10.2 based on Annex D para 9 of Accreditation Standard

Languages:

## Experience Exchange

Date	Location	Remarks	Accreditation(s)
2010-12-21	Beijing	GC CDM Auditor Experience Exchange, Beijing, 2010-12-21to23 United Nations Framework Convention on Climate Change	

## Monitoring

Latest Monitoring:  
(letzte Beurteilung)

Next Monitoring:  
(nächste Beurteilung)

Remarks:

[View / Edit Monitoring](#)

### History of scope allocation

Date: 2010-11-11  
Change: EAC CDM, CDM, CDM, CDM added  
By: Manfred Brinkmann  
Reason: Appointed as Technical Reviewer for  
TA 1.2  
TA 5.1, 11.1, 12.1

### History

Created:	08/13/2010 11:19:43 AM	Cuiping Deng/Bj/Chn/TUV
Modified:	07/02/2012 03:09:41 PM	Praveen Urs/Chn/TUV
	07/02/2012 03:09:40 PM	Praveen Urs/Chn/TUV
	02/12/2012 05:35:34 PM	Praveen Urs/Chn/TUV
	02/12/2012 05:35:21 PM	
	11/11/2010 12:00:44 PM ZE9	
	11/11/2010 11:59:20 AM ZE9	
	11/11/2010 11:58:18 AM ZE9	
	08/13/2010 11:21:37 AM	