VALIDATION CHECKLIST

PROJECT TITLE: Construction and operation of the Hydraulic Power Plant Chicoasén II.

REFERENCE NUMBER: CV-11117-12 MEX
VERSION: 03
DATE: 09/Oct/2012

CLIENT NAME: Carbon Solutions de Mexico, S.A. de C.V.

AUDIT TEAM:

Team Leader: Miquel Picas Martinez
Technical and Local Expert:
Adrián Estrella – Local Expert and Trainee Auditor.
Agustín Salas – Local Expert and Trainee Auditor.

This document contains a generic Validation Protocol for CDM projects, which must be seen in conjunction with the Validation and Verification Guidelines and the Validation Report Template.

This validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet; and
- It ensures a transparent validation process by inducing the validator to document how a particular requirement has been validated and which conclusions have been reached;

This protocol contains two tables with generic requirements for validation projects. Table 1 shows the requirements that the GHG emission reduction project will be validated against. Table 2 consists of a checklist with validation questions related to one or more of the requirements in Table 1. The checklist questions may not be applicable for all investors, and should not be viewed as mandatory for all projects. Where a finding is issued, a corrective action request or clarification request are stated. The resolution and final conclusions of these requests should be described in Table 3 of this protocol.

Before this generic validation protocol can be applied to validate a specific project, the validator must review and adjust/amend the protocol to make it applicable to individual project characteristics and circumstances as well as individual investor criteria. The application of the validator's professional judgment and technical expertise should ensure that checklist amendments cover all necessary specific project requirements that have impact on project performance and acceptance of the project. Given the above, the checklist part of the protocol is neither exhaustive nor prescriptive.

Table 1: Conformity with general requirements

Checklist items	Requirements	Reference	Comments	Finding	Final finding
Parties					
- The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3.	Kyoto Protocol Art. 12.2		N/A	N/A	N/A
- The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof.	Kyoto Protocol Art. 12.2		See question A.3 below.	OK	OK
- The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC.	Kyoto Protocol Art. 12.2.		See question A.3 below.	OK	OK
Approval					
- The project shall have written approval of voluntary participation from the designated national authorities of each party involved.	Kyoto Protocol Art. 12.5a		See question A.3 below.	OK	OK
- The emission reductions should be real, measurable and give long-term benefits related to the mitigation of climate change.	Kyoto Protocol Art. 12.5b		See question A.4.4 below.	OK	OK
- Reduction in GHG emissions must be additional to any that would occur in absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity.	Kyoto Protocol Art. 12.5.c		See question A.2.6	OK	OK
- Potential public funding for the project from	Decision 17/CP.7		See question A.4.5	OK	OK

Checklist items	Requirements	Reference	Comments	Finding	Final finding
Parties in Annex I shall not be a diversion of official development assistance (ODA).					
- Parties participating in the CDM shall designate a national authority for the CDM. - Has the approval of participation been issued from the relevant DNA? - How is the validity and authenticity of the approval of participation verified for the proposed CDM project participant if in doubt?	CDM M&P §§29 VVM 01.2 §§47,48,53		See question A.3.1	OK	OK
- Does the LoA provided by DNA of each party unconditionally confirm the following information? - The Party is a Party to the Kyoto Protocol; - Participation is voluntary; - In the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country; - It refers to the precise proposed CDM project activity title in the PDD being submitted for registration.	CDM M&P §§28 CDM M&P §§30 VVM 01.2 §§45,46,125 EB 16 Annex 6		See question A.3.1	OK	OK
Modalities of Communication					
- Does the MoC prepared follow the "Procedures for Modalities of Communication between Project Participants and the Executive Board"?	EB 45 Annex 59		~~Please provide the Modalities of Communication to the DOE.~~ The Modalities of Communication format was provided to the DOE. This document has been signed by the two PPs of the project.	~~CAR #1~~ OK	OK
- Is the correct form "F-CDM-MoC" used?	EB 45 Annex 59 §§ 12		The form used is the last version approved by the EB.	OK	OK
- Does the statement of MoC incorporate the	EB 45 Annex 59		Yes. MoC provided include:	OK	OK

Checklist items	Requirements	Reference	Comments	Finding	Final finding
following provisions? - Title of the CDM project activity (and UNFCCC reference number if available); - Date of submission; - List of all project participants; - Clear designation of focal point for each scope of authority as described in section A above; - Contact details and specimen signature of each focal point and signing authority (to be entered separately in cases where the focal point is also a project participant); - Signatures (physical or electronic, when the latter is available) of all project participants confirming their agreement to the terms of the statement of modalities of communication.	§§ 12		• The title of the CDM project activity. • The date of submission. • A list of all project participants. • A clear designation of the focal point for each scope. • Contact details and specimen signature of each focal point. • Signatures of all project participants.		
- If applicable, does the implementation of the MoC follow the "Operational Guideline" in section C of EB 45 Ann 59?	EB 45 Annex 59 §§ 12				
Environmental impact					
- Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	CDM M&P §§37c		See section D below.	OK	OK
Stakeholder' comments					

Checklist items	Requirements	Reference	Comments	Finding	Final finding
- Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received.	CDM M&P §§37b		See question E.1	OK	OK
- Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available.	CDM M&P §§40		PDD was published for GSC on 09/05/2012. ~~Please provided an answer for comments received during the GSC~~ Comments and question have been answered by PP. For details see Validation Report Section 4.	~~CAR #2~~ OK	OK
Methodology					
- Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel.	CDM M&P §§37e		See section B below.	OK	OK
- A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	CDM M&P §§45c,d		See section B.4 below	OK	OK
- The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure.	CDM M&P §§47		See section B.4 below	OK	OK
- Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakesh Accords and relevant decisions of the COP/MOP.	CDM M&P §§37f		See section B.6 below.	OK	OK
Project Design Document					
- The PDD shall be in conformance with the	CDM M&P		PDD used by PP is version 03 which is the last PDD format published in	OK	OK

Checklist items	Requirements	Reference	Comments	Finding	Final finding
UNFCCC CDM-PDD format.	Appendix B		the UNFCCC website.		
SSC Project Activity					
- The proposed project activity shall meet the eligibility criteria for small scale CDM project activities set out in § 6 (c) of the Marrakesh Accords and shall not be a debundled component of a larger project activity.	Simplified M&P for SSC PA §§12a,c		N/A	N/A	N/A
- The proposed project activity shall confirm to one of the project categories defined for small scale CDM project activities and uses the simplified baseline and monitoring methodology for that project category.	Simplified M&P for SSC PA §§22e		N/A	N/A	N/A
- The project design document shall conform to the Small Scale CDM Project Design Document format and to the Guidelines for completing the simplified project design document (CDM-SSC-PDD).	Simplified M&P for SSC PA, Appendix A.		N/A	N/A	N/A

Table 2: Conformity of Project Activity and PDD

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
A. General description of project activity						
A.1. Title of the project activity						
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?		EB 41 Ann 12	/1/	Yes. The project activity is identified as "Construction and operation of the Hydraulic Power Plant Chicoasén II.	OK	OK
A.1.2. Is there any indication concerning the revision number and the date of the revision?		EB 41 Ann 12	/1/	Yes. At the time of the on-site validation the PDD revision number is 01 and dated on 23/Apr/2012.	OK	OK
A.1.3. Is this consistent with the time line of the project's history?		EB 41 Ann 12		N/A at the time of the on-site validation.	N/A	N/A
A.2. Description of the project activity						
A.2.1. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	58		/1/	Yes. See PDD section A.2. There it is indicated that the project consist of the construction of one hydroelectric facility in the bed of the Grijalva River. The facility will be located in the Chicoasén municipality, state of Chiapas in southern Mexico. Also it is indicated that the project construction will include: Access roads, warehouses, offices, storages, water derivation and spillway civil works, etc. The facility will operate with the water volume realized from the upstream hydroelectric facility Chicoasén I. The project will include the installation of 3 - 80.4 MW Kaplan turbines with a total capacity of 241,2 MW.	OK	OK
A.2.2. How is the description in PDD validated against the real practice or planning of the project activity? And what proofs are available and validated by the assessment team? Is the	59~64		/1/	During the on-site assessment, the validation team has checked that in the area there is no other facility other than the river. Also the validation team has checked documents such as contract purchase for turbines, budget to construct the Hydraulic Power Plant, EIA, etc. Please provide any document to check the description of the project	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
information provided by these proofs consistent with the information provided by the PDD?				activity.		
A.2.3. Is all information presented consistent with details provided by further chapters of the PDD?	59~64			Yes.	OK	OK
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD, in particular chapters A.4.2 "Technology to be employed by the project activity", B.3 "Description of the sources and gases included in the project boundary" and B.4 "Identification of the baseline scenario"?		EB 41 Ann 12		Yes, information presented is consistent with details provided in further chapters of the PDD.	OK	OK
A.2.5. Is a concise description (a couple of paragraphs) of the baseline, existing and project scenario included in the PDD?		EB 41 Ann 12	PDD	Yes. See PDD section A.2 The baseline scenario is the electricity delivered to the grid (National Interconnected System) 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".	OK	OK
A.2.6. Is it explained how the proposed project activity reduces greenhouse gas emissions making reference to the scenarios, emission sources and gases described in sections "A.4.3 Technology to be employed by the project activity" and "B.3 Description of the sources and gases included in the project		EB 41 Ann 12	PDD	The project activity will reduce GHG emission by replacing fossil fuel based technologies to produce electricity. The proposed technology will use kinetic energy to move a power generator to produce electricity; this technology does not emit GHG gases. No emissions of methane were taken into consideration in the project emission calculation because the power density of the project is greater than 10 W/m^2.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
boundary"?						
A.2.7. Is it included in PDD the view of the project participants on the contribution of the project activity to sustainable development (max. one page)?		EB 41 Ann 12	/1/ EIA	PP indicates that the project activity will contribute to the sustainable development at the local, regional and global levels in the following ways: Environmental sustainability: Use of renewable energy sources for electricity generation. Impulse of the environmental sustainability, diminishing explotation and exhaustion of natural, finite and non-renewable resources, like oil and natural gas. Non generation of any significant negative environmental impact during the construction and implementation of the project. Economic and social sustainability: Creation of new employment opportunities in the area (mainly during the construction but also along the lifetime of the HPP because maintenance and operation phases). Some regions in the country do not have energy generation infrastructures, the project activity will contribute to the improvement of the current situation satisfying the growing demand for electricity and making possible the distribution of energy to more isolated zones.	OK	OK
A.3. Project participants						
A.3.1. Have all project participants been listed in a consistent manner in the project documentation, and their participation in the project activity has been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? Is it confirmed that no entities other than those approved as project participants are included in these sections of the PDD?	44 51 52	EB 41 Ann 12	/1/	Project Participants are: • Comisión Fedreal de Electricidad (Public Entity) • Carbon Solutions de México, SA de CV (Private Entity). This information has been checked out through the Intention Letter signed between Comisión Federal de Electricidad and Carbon Solutions de Mexico, SA de CV signed on 31/01/2012. After reviewing this letter the validation team can conclude that there are no other project participants. Also as indicated in the Letter of Approval emitted by the Mexican DNA with reference number #304/2012 and dated on 15/06/2012 project participants are both above mentioned entities.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
A.3.2. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	52			Yes. See PDD Annex I there is included the contact information for project participants: Comisión Federal de Electricidad and Carbon Solution de México, SA de CV.	OK	OK
A.4. Technical description of the project activity						
A.4.1. Location of the project activity						
A.4.1.1. Is the physical location described in the PDD and provides for unique identification of the project activity? (e.g. Longitude/latitude)		EB 41 Ann 12	PDD	The project activity will be located at the Chicoasén Municipality, in the State of Chiapas in Mexico. PDD includes the coordinates of the project activity. During the on-site validation, the validation team has checked out every one of the coordinates included in the PDD. ~~Coordinates included in PDD correspond to the affected area identified in the E.I.A., please modify the project activity coordinates indicating those corresponding to the dam.~~ PP has provided a new version of the PDD which includes the coordinates where the dam will be located. Coordinates provided and included in the PDD have been crosschecked with those taken during the on-site visit, and are found correct.	OK ~~CL # 2~~ OK	OK
A.4.1.2. How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?		EB 41 Ann 12	PDD	During the on-site validation, the validation team has checked the following documents: • Land occupation contracts. • Licenses. • EIA, etc.	OK	OK
A.4.2. Category(ies) of project activity						
A.4.2.1. Does the PDD list the category(ies) of the proposed CDM project activity in line with the latest guidelines or requirements?		EB 41 Ann 12	PDD	The PP has categorized the project activity under the sectoral scope 1. Energy Industries (renewable - / non renewable sources). It is confirmed that the project activity is in line with the latest guidelines and requirements.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
A.4.3. Technology to be employed by the project activity						
A.4.3.1. Is the description included in PDD how the environmentally safe and sound technology and know-how is used, is transferred to the Host Party(ies)?		EB 41 Ann 12	PDD	In the current scenario the electricity is generated mainly from the burning of fossil fuels. The main sources of GHG emissions are the power fuel based plants. The project activity will substitute power generation plants using fossil fuels by renewable energy sources.	OK	OK
A.4.3.2. Is the purpose of the project activity as described in section "A.2 Description of the project activity" further explained in this section, taking the information provided in that section as a basis and including a detailed description of the baseline, existing and project scenario?		EB 41 Ann 12	PDD	Yes. As indicated before, the project activity consist in the installation of a hydropower facility with a net generation capacity of 240 MW, which is expected to produce 571,852.8 MWh/year with an average plant load factor of 27.2%, and with an expected operational lifetime of 50 years. The project activity will uses three turbines to produce electricity without emitting GHG. Each Kaplan turbine will have a nominal capacity of 80.4MW. The project will be connected to the Chicoasén II Substation. The voltage and length of the transmission line will be 400 kV and 9.3km.	OK	OK
A.4.3.3. Is the list of the equipments and systems available in baseline, existing and project scenario clearly mentioned in this section of the PDD? The information related to equipments, systems and activities that are auxiliary to the main scope of the project activity and do not interfere directly or indirectly with emissions of greenhouse gases and/or with mass and energy balances in the project activity should not be included.		EB 41 Ann 12		Yes. The project activity includes the installation of 3 Kaplan turbines.	OK	OK
A.4.3.4. Does the description of the technology to be applied provide		EB 41 Ann 12		Yes. See questions above.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance? – for the detail refer to EB 41, annex 12.						
A.4.4. Estimated amount of emission reductions over the chosen crediting period						
A.4.4.1. Is the form required for the indication of projected emission reductions correctly applied?		EB 41 Ann 12	PDD	Yes. See PDD section A.4.4. The crediting period will start on 01/jul/2017, with a total emission reductions of 2,994,360 tCO_2. Table 3 stars with 6 months in 2017, 9 complete years (from 2018 to 2026) and ends in the first half of 2027 covering the total of crediting 10 years.	OK	OK
A.4.4.2. Are the figures provided consistent with other data presented in the PDD?		EB 41 Ann 12		Yes. Both total estimated emission reductions and annual average over the crediting period of estimated reductions are consistent in section B.5 and B.6	OK	OK
A.4.5. Public funding of the project activity						
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?		EB 41 Ann 12	PDD	PP indicates that no public funding will be provided.	OK	OK
A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?		EB 41 Ann 12	PDD	Yes. The information provided in section A.4.5 is consistent with the one provided in Annex 2.	OK	OK
B. Application of a Baseline and Monitoring Methodology						
B.1. Title and reference of the approved baseline and monitoring methodology						
B.1.1. Are the title, reference and		EB 41	PDD	PP has used the ACM0002, version 12.3 "Consolidated baseline	OK	OK

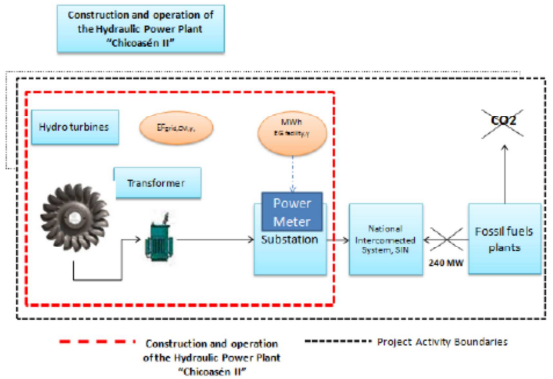
Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
version number of the approved baseline and monitoring methodology(ies) and/or tools clearly indicated?		Ann 12	ACM0002	methodology for grid-connected electricity generation from renewable sources". PP also indicates that the following tools have been used: • Tool to calculate the emission factor for an electricity system (v.02.2.1). • Tool for demonstration and assessment of additionality (v.06.0.0) • Combined tool to identify the baseline scenario and demonstrate additionality (v.04.0.0) • Tool to calculate project leakage CO_2 emissions from fossil fuel combustion (v.02) At the time of the validation on-site, the validation team concludes that the methodology and the tools used are clearly indicated in the PDD.		
B.1.2. Is the applied version the most recent one and/or is this version still applicable and valid?	68	EB 41 Ann 12	PDD ACM0002 and tools	At the time of the validation on-site, the validation team concludes that PP has used the most recent version or those used are still valid.	OK	OK
B.2. Justification of the choice of the methodology and why it is applicable to the project activity						
B.2.1. Is the applied methodology considered the most appropriate one?	65~70	EB 41 Ann 12	PDD ACM0002	According to the ACM0002 v.12.3.0 The methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plants at a site where no renewable power plant was operated prior to the implementation of the project activity. Also the methodology is also applicable under the following conditions: The project activity is the installation of a hydro power plant (either with a run-of-river reservoir or an accumulation reservoir). ACM0002, also indicates that in case of hydro power plants at least one of the following conditions must apply: • The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of the reservoirs, or • The project activity is implemented in an existing single or	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4W/m^2 after the implementation of the project activity, or • The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m^2 after the implementation of the project activity. As indicated in PDD, the project consists in the installation of a new power plant for renewable electricity generation that will be connected to the National Interconnected System (SIN). The project consists of in the installation of a new hydropower plant. A new water reservoir will be constructed and the power density of the power plant is greater than 4W/m^2 The power density is 127.25W/m^2.		
B.2.2. Is the choice of methodology justified and have the project participants shown that the project activity meets each of the applicability conditions of the approved methodology or any tool or other methodology component referred to therein?	71		PDD	Yes, see PDD section B.2 and question above.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
B.2.2.1. Criterion 1: (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant);			PDD ACM0002	Applicability checklist: Yes / No Criterion discussed in the PDD? YES Compliance provable? YES Evidences provided? YES Compliance verified? YES	OK	OK
B.2.2.2. Criterion 2: The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir),			/1/ ACM0002	Applicability checklist: Yes / No Criterion discussed in the PDD? YES Compliance provable? YES Evidences provided? YES Compliance verified? YES	OK	OK
B.2.2.3. Criterion 3: In case of hydro power plants: The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m2 after the implementation of the project activity			/1/ ACM0002	Applicability checklist: Yes / No Criterion discussed in the PDD? YES Compliance provable? YES Evidences provided? YES Compliance verified? YES	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
B.2.2.4. Criterion 4: The methodology is not applicable to the following: • Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; • Biomass fired power plants; • A hydro power plant2 that results 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/m2			/1/ ACM0002	Applicability checklist: Criterion discussed in the PDD? YES; Compliance provable? YES; Evidences provided? YES; Compliance verified? YES	OK	OK
B.2.3. How is the consistency of the documentation referred to in the PDD as well as its content quoted and interpreted in the PDD validated by the assessment team?	71		EIA	The validation team has check the information contained in the Environmental Impact Assessment in order to determine the information included in the PDD.	OK	OK
B.2.4. If any, what source other than that used in the PDD has been validated by the assessment team to cross check the compliance with the applicability conditions of the methodology?	71			Also during the on-site validation, the validation team has visited the place where it is planned to construct the reservoir, and it is confirmed that no existing reservoir is in the place it has to be build the project activity.	OK	OK
B.3. Description of the sources and gases included in the project boundary						
B.3.1. Is the project boundary clearly described, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of	78	EB 41 Ann 12	/1/	As indicated in ACM0002 v.12.3.0 project boundary consist in the spatial extent of the project boundary and includes the project power plant and all power plants connected physically to the electricity system that the CDM project activity is connected to.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
calculating project and baseline emissions for the proposed CDM project activity?						
B.3.2. Are all the sources listed and discussed in the PDD?	79		/1/	PDD includes the following sources: • Baseline emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.		
B.3.2.1. Source: Emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity Gas(es): CO_2 Type: Baseline Emissions			/1/ ACM0002	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? YES **Inclusion** / exclusion justified? YES Explanation / Justification sufficient? YES Consistency with monitoring plan? YES	OK	OK
B.3.2.2. Source: Emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity Gas(es): CH_4 Type: Baseline Emissions			/1/ ACM0002	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? YES Inclusion / **exclusion** justified? YES Explanation / Justification sufficient? YES Consistency with monitoring plan? YES	OK	OK
B.3.2.3. Source: Emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity Gas(es): N_2O Type: Baseline Emissions			/1/ ACM0002	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? YES Inclusion / **exclusion** justified? YES Explanation / Justification sufficient? YES Consistency with monitoring plan? YES	OK	OK
B.3.2.4. Source: For hydro power plants, emissions of CH_4 from the reservoir Gas(es): CO_2 Type: Project activity			/1/ ACM0002	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? YES Inclusion / **exclusion** justified? YES Explanation / Justification sufficient? YES Consistency with monitoring plan? YES	OK	OK

<table>
<tr><th>Checklist items</th><th>VVM V01.2 §§</th><th>EB requirement</th><th>References</th><th>Comments</th><th>Finding</th><th>Final Finding</th></tr>
<tr><td>B.3.2.5. Source: For hydro power plants, emissions of CH_4 from the reservoir
Gas(es): CH_4
Type: Project activity</td><td></td><td></td><td>/1/ ACM0002</td><td><table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>YES</td></tr><tr><td>Inclusion / exclusion justified?</td><td>YES</td></tr><tr><td>Explanation / Justification sufficient?</td><td>YES</td></tr><tr><td>Consistency with monitoring plan?</td><td>YES</td></tr></table></td><td>Ok</td><td>Ok</td></tr>
<tr><td>B.3.2.6. Source: For hydro power plants, emissions of CH_4 from the reservoir
Gas(es): N_2O
Type: Project activity</td><td></td><td></td><td>/1/ ACM0002</td><td><table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>YES</td></tr><tr><td>Inclusion / exclusion justified?</td><td>YES</td></tr><tr><td>Explanation / Justification sufficient?</td><td>YES</td></tr><tr><td>Consistency with monitoring plan?</td><td>YES</td></tr></table></td><td>OK</td><td>OK</td></tr>
<tr><td>B.3.3. What supporting documented evidence has been validated by the assessment team to assess the rational of the justification of inclusion/exclusions?</td><td>79</td><td></td><td>/1/</td><td>The validation team has used the information contained in PDD and it has been checked against ACM0002 v.12.3.0.</td><td>OK</td><td>OK</td></tr>
<tr><td>B.3.4. Does the PDD present a flow diagram of the project boundary, physically delineating the project activity, based on the descriptions provided in section A.4.3? Does the flow diagram of the project boundary clearly indicate all the equipments, systems and flows of mass and energy, emissions sources and gases included in the project boundary and the monitoring variables? Is the geographical extent transparently described as well?</td><td></td><td>EB 41 Ann 12</td><td></td><td>Yes. See PDD section B.3 where PP has included the following diagram:
 
</td><td>OK</td><td>OK</td></tr>
<tr><td colspan="7">B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario</td></tr>
<tr><td>B.4.1. Has the PDD identified the list</td><td>81</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
of plausible alternative baseline scenarios for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?						
B.4.2. Has any procedure contained in the applied methodology been correctly applied to identify the most reasonable baseline scenario?	82			Pls. mention how the procedure contained in the methodology is applied.		
B.4.3. If the selected methodology requires the use of tools (such as the "Tool for the demonstration and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality"), has the procedure contained in the applied methodology correctly applied?	82			~~In PDD section B.4 It has to be described how each step of the "Combined tool to identify the baseline scenario and demonstrate additionality" has been applied and transparently document the outcome of each step.~~ According to the ACM0002, it has to be used the Tool to calculate the emission factor for an electricity system, also the step by step use of the Tool for demonstration and assessment of additionality is indicated in section B.5.	~~CL #2~~ OK	OK
B.4.3.1. Does the list of alternatives include as one of the options that the project activity is undertaken without being registered as a proposed CDM project activity?	106(a)			No, the alternative are: 1. The construction and operation of a fossil fuel power plant, a natural gas combined cycle power plant. 2. Continuation of the current situation.	OK	OK
B.4.3.2. Does the list contain all plausible alternatives considered to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity, on the basis of the assessment	106(b)			Yes, PDD also includes the continuation of the current situation, which is that CFE does not implement the project activity, this scenarios consist in the continuation of the current practices, which is the use of carbon intensive electricity sources.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
team's local and sectoral knowledge?						
B.4.3.3. Do the alternatives comply with all applicable and enforced legislation?	106(c)			Yes. Alternative scenarios comply with all applicable legislation, especially with the Electricity Public Service Law. Also the project has obtained the no objection vote by the Environmental and Natural Resource Ministry (SEMARNAT), and has already processed the water concession by the National Water Commission (CNA).	OK	OK
B.4.4. If the methodology requires several alternative scenarios to be considered in the identification of the most reasonable baseline scenario, are all scenarios considered by the project participants supplementary to those required by the methodology, reasonable in the context of the proposed CDM project activity and that no reasonable alternative scenario has been excluded based on financial expertise and local and sectoral knowledge?	83			As indicated above, PP have considered two possible scenarios: • The construction and operation of a fossil fuel power plant, a natural gas combined cycle power plant. • Continuation of the current situation. Alternative 1 was chosen because is the most efficient way to produce energy, plus the facility chosen has the most expensive electricity production cost among the natural gas combined cycle options.	OK	OK
B.4.5. Have the baseline scenarios identified reasonably based on the assumptions, calculations and rationales used, as described in the PDD? Are the documents and sources referred to in the PDD correctly quoted and interpreted? How is the information provided in the PDD cross checked, e.g. base on other verifiable and credible sources, such as local expert opinion, if available?	84			Yes, baseline scenario has been determined as the continuation of the current situation. All calculations, documents and sources are correctly quoted in the PDD. During the validation process they have been cross-checked through their sources.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
B.4.6. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity, including "relevant national and/or sectoral policies and circumstances"? Have all these relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	85			Yes. See question B.4.3.3.	OK	OK
B.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 proposed CDM project activity?	86			Yes.	OK	OK
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality)						
B.5.1. Prior consideration of CDM – EB 62, Annex 13, *Guidelines on the Demonstration and Assessment of Prior Consideration of the CDM*						
B.5.1.1. Has it provided in PDD an implementation timeline of the proposed CDM project activity?		EB 62 Ann 13	/1/	Yes. See PDD section B.5.	OK	OK
B.5.1.2. If the project activity start date is prior to the date of publication of the PDD for stakeholder comments, how is it demonstrated that the CDM benefits were considered	98			N/A	N/A	N/A

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
necessary in the decision to undertake the project as a proposed CDM project activity?						
B.5.1.3. How is it validated that the project activity is in accordance with the EB 62 Annex 13, *Guidelines on the Demonstration and Assessment of Prior Consideration of the CDM*?	100	EB 62 Ann 13		Project Activity starting date will be after 02/08/2008. As established in *Guidelines on the Demonstration and Assessment of Prior Consideration of the CDM* para #2, CFE made the prior CDM communication to the UNFCCC on 31/01/2012, this data has been validated through the website: (http://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html).	OK	OK
B.5.2. Investment analysis – EB 62 Annex 5, *Guidelines on the Assessment of Investment Analysis*						
B.5.2.1. If investment analysis is used, does the evidence provided in the PDD show that the proposed CDM project activity would not be: - The most economically or financially attractive alternative; or - Economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs).	108		/1/	Yes. Outcome of the investment analysis shows that the project activity is not economically or financially attractive, because the levelized energy cost of the project is much higher that the most expensive method among the gas combined cycle electricity generating facilities.	OK	OK
B.5.2.2. In case of applying investment analysis of the additionality tool: Is the analysis method identified appropriately? How is it demonstrated the applied analysis method is the most appropriate one?		EB 62 Ann 5 EB 39 Ann 10	/1/ COPAR	The financial indicator used is $/kWh according to the document "Cost and Parameters for the Formulation of Investment Projects in the Electricity Sector (COPAR). As indicated in PDD, this indicator is useful to compare two or more projects giving the same product and also it is used by the Mexican government when comparing two electricity generation projects.	OK	OK
B.5.2.3. In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic	109(a)	EB 62 Ann 5		N/A	N/A	N/A

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
benefits other than CDM income?		EB 39 Ann 10				
B.5.2.4. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	109(b)	EB 62 Ann 5 EB 39 Ann 10	/1/ COPAR	Yes. See question B.5.2.2 above.	OK	OK
B.5.2.5. In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	109(c)	EB 62 Ann 5 EB 39 Ann 10		N/A	N/A	N/A
B.5.2.6. In case of Option II or Option III: Is the most suitable benchmark selected with a plausible justification provided?	112	EB 62 Ann 5 EB 39 Ann 10	/1/ COPAR	Yes, as indicated before, Mexican Government and CFE uses this kind of indicator when comparing two electricity generation projects.	OK	OK
B.5.2.7. In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity? How the correctness of the computation is verified (spreadsheet)?	111(d)	EB 62 Ann 5 EB 39 Ann 10	/1/ COPAR	Yes. The calculation of financial figures for the $/kWh is correctly done. The total levelized cost of electricity production corresponds to the sum of the investment levelized cost, the fuel levelized cost and the operation and maintenance levelized cost, considering its expected lifetime. The expected lifetime of the project activity is 50 years. - As indicated, PP has chosen a natural gas combined cycle power plant of 283.36 MW of installed capacity. This option has been chosen because is the most efficient way to produce energy, with a levelized cost of 60.68 USD/MWh, as indicated in COPAR. - Unit cost is determined by PP as 1,646,229 USD/MW. This cost is calculated dividing the investment cost (395,095,000 USD) by the installed capacity (240 MW). - Then the Capital Recovery Factor is calculated taking into account the expected lifetime (50years) and the discount rate (0.12%).	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				- After PP calculates the Present Value Factor, which is 1.267. - The last component to determine is the Annual Net Generation per MW installed, PP takes the following data and parameters the Plant load factor (0.27) and the Self consumption (0.50%), resulting in 2,370.81 MWh/MW. In order to calculate the Levelized Energy Cost for the project activity, PP multiplies the parameters described above, resulting in 94.59 USD/MWh. ~~Please provide evidence of how the investment cost has been determined.~~ PP also calculates Levelized energy cost for O&M: - O&M Total cost is 230.77 USD/MW. - Unit cost is calculated dividing the O&M total cost (230.77USD/MW) by the installed capacity (240MW) resulting in 961,542USD/MW. - Present value factor is 0.18240. The Levelized Energy Cost for O&M is 7.95USD/MWh. ~~Please provided evidence of how the O&M cost has been determined.~~ ~~Also it has to be clarified why O&M total is multiplied by 10^6 in sheet 2.A LEC Chicoasen II cell F48.~~ ~~It has to be clearly indicate where has the present value factor taken from.~~ PP in order to calculate the Levelized Energy cost of Fuel uses the following data: - The total cost of water use is 174.84USD/MW. - Unit cost is calculated dividing the total cost of water use (174.84USD/MW) by the installed capacity (240MW) resulting in 728,500USD/MW. - The present value factor used is 0.18240. The Levelized Energy cost for fuel results in 6.03 USD/MWh. ~~Please provide evidence of how the total cost of water use has been determined.~~	~~CL #3~~ ~~CL #3~~ ~~CL #3~~ ~~CL #3~~ ~~CL #3~~	

<table>
<tr><th>Checklist items</th><th>VVM V01.2 §§</th><th>EB requirement</th><th>References</th><th>Comments</th><th>Finding</th><th>Final Finding</th></tr>
<tr><td></td><td></td><td></td><td></td><td>~~Also it has to be clarified why the total cost of water use is multiplied by 10^6 in sheet 2.A LEC Chicoasen II cell F58.~~
~~It has to be clearly indicated where has the present value factor taken from.~~
The Total Investment Levelized Energy Cost results in 108.57USD/MWh.
PP has responded correctly or has provided the evidence that were requested.
All calculations have been made by PP using a spreadsheet, which contains all data, all parameters and formulae.
The validation team has checked out all data to its external source, also formulae included in the spreadsheet have been checked out, all formulae used in the analysis in the spreadsheet are readable and all relevant cells are viewable and unprotected.</td><td>~~CL #3~~
~~CL #3~~
OK</td><td></td></tr>
<tr><td>B.5.2.8. How are the parameters and assumptions used in calculating the relevant financial indicator verified by the assessment team? How is the accuracy and suitability of these parameters verified?</td><td>111(a)</td><td></td><td></td><td>The parameters and assumptions used in calculating the levelized energy cost are based on data information provided by PP, and also crosschecked with publicly available sources.
Through crosscheck with third-party or publicly available sources, the accuracy and suitability of these parameters are verified by the validation team.</td><td>OK</td><td>OK</td></tr>
<tr><td>B.5.2.9. How are the parameters crosschecked against third-party or publicly available sources, such as invoices or price indices?</td><td>111(b)</td><td></td><td></td><td>
<table>
<tr><th>PARAMETER</th><th>UNIT</th><th>VALUE</th><th>CROSSCHEKED</th></tr>
<tr><td>Investment</td><td>USD</td><td>395,095,000.00</td><td>395,095,000.00</td></tr>
<tr><td>Plant Load Factor</td><td>%</td><td>27.2</td><td>27.2</td></tr>
<tr><td>Project lifetime</td><td>Years</td><td>50</td><td>50</td></tr>
<tr><td>Discount rate</td><td>%</td><td>12</td><td>12</td></tr>
<tr><td>Self consumption</td><td>%</td><td>0.50</td><td>0.50</td></tr>
<tr><td>O&M cost</td><td>USD/MW</td><td>230.77</td><td>230.77</td></tr>
<tr><td>Present Value Factor</td><td>-</td><td>0.18240</td><td>0.18240</td></tr>
<tr><td>Water use cost</td><td>USD/MW</td><td>174.84</td><td>174.84</td></tr>
</table>
</td><td>~~CL #3 & 4~~</td><td>OK</td></tr>
<tr><td>B.5.2.10. Have the feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity</td><td>111(c) 113</td><td></td><td></td><td>Yes, the validation team has cross checked information that was publicly available such as COPAR 2011, Mexican Ministry of Finance, etc.</td><td>OK</td><td>OK</td></tr>
</table>

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
and the project participants been reviewed to verify the accuracy of financial calculations? In case that the decision is made relying on FSR, - Has the FSR been the basis of the decision to proceed with the investment in the project activity? - Are the values used in the PDD and associated annexes fully consistent with the FSR? - Are the input values from the FSR valid and applicable at the time of the investment decision, via cross-checking or other appropriate manner?						
B.5.2.11. Is a sensitivity analysis conducted in order to assess whether the conclusion regarding the financial attractiveness is robust to reasonable variations in the critical assumptions? Were only variables that constitute more than 20% of either total project costs or total project revenues subjected to reasonable variation?	111(e)	EB 62 Ann 5		The sensitivity analysis is conducted by a range more than ±10% and the Investment and the Plant Load Factor does not pass the benchmark in this range. An extreme analysis is concluded to show that the project never will reach the benchmark. The result of the sensitivity analysis shows that the conclusion of the investment is robust. Investment and the plant load factor are considered in the sensitivity analysis.	OK	OK
B.5.2.12. In case of PLF, is the PLF chosen in a conservative manner, in accordance with the "Guidelines for the reporting and validation of plant load factors"?		EB 48 Ann 11		PP has chosen 27.20% as plant load factor. The plant load factor is taken from the feasibility report, which indicates that the plant load factor is determined by the HPP Ing. Manuel Moreno Torres, because the project activity does not have regulation capacity. HPP Ing. Manuel Moreno Torres is located upstream in the Grijalva	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				River. ~~According to the Guidelines for the reporting and validation of plant load factors (v.01), please provided evidences on how the Plant Load Factor for the HPP Ing. Manuel Moreno Torres is determined.~~ PP has provided the evidences requested, see Validation Report.	~~CL #5~~ OK	
B.5.2.13. It the lifetime of facilities demonstrated in accordance with the "Tool to determine the remaining lifetime of equipment"?		EB 50 Ann 15		PP considerer a lifetime of 50 years, the same term that was used as the horizon in the economic and financial evaluation.	OK	OK
B.5.3. Barrier analysis – EB 50 Annex 13, *Guidelines for Objective Demonstration and Assessment of Barriers*						
B.5.3.1. Is a complete list of barriers developed that prevent the implementation of the proposed project and the different alternatives to occur?	115	EB 50 Ann 13		According to the "Tool for demonstration and assessment of additionality" (version 06.0.0) as the project activity is not economically / financially attractive, the barrier analysis (Step 3 of the Tool) is not applicable.	OK	OK
B.5.3.2. Is transparent and documented evidence provided on the existence and significance of these barriers?	117(a)	EB 50 Ann 13		N/A	N/A	N/A
B.5.3.3. Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	117(b)	EB 50 Ann 13		N/A	N/A	N/A
B.5.3.4. How is confirmed that the CDM does alleviate the barriers presented?		EB 50 Ann 13		N/A	N/A	N/A
B.5.4. Common practice analysis – EB 63 Annex 12, *Guidelines on Common Practice*						
B.5.4.1. Have other activities in the applicable geographic area similar		EB 63 Ann 12		According to the Guidelines on Common Practice v.01.0, PP has identified other activities in the applicable geographical area within an	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
to the project activity been identified and are these activities appropriately analyzed by the PDD? Is there any justification of the choosing of the geographic area provided in PDD if the area is smaller the host country?				output range as ±50% (120-360MW). PP has identified all plants within this output range and these are connected to the National Interconnected System.		
B.5.4.2. Are the essential distinctions between the proposed CDM project activity and the other similar activities clearly justified?		EB 63 Ann 12		PP has included in table 10 of the PDD, the list of power plants connected to the National Interconnected System, also it is indicated the type of process that each power plant uses.	OK	OK
B.5.4.3. How is the "Stepwise approach for Common Practice" of the EB 63 Annex 12 applied to analyze the common practice?		EB 63 Ann 12		PP follows the stepwise as indicated in "Guidelines in common practice" V.01.0. Step 1: Output range 240MW ±50% = 120-360MW. Step 2: N_{all} = 34. Step3: N_{diff} = 28 Step 4: F=1- N_{diff}/ N_{all}=1-(28/34)=0.17. The proposed project activity is not a common practice as the factor F is less than 0.2 and N_{all} - N_{diff} is 6.	OK	OK
B.6. Emission reductions						
B.6.1. Explanation of methodological choices						
B.6.1.1. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring?	89 92	EB 41 Ann 12		According to the Approved consolidated baseline and monitoring methodology ACM0002 (version 12.3.0), PP uses the following equations: Emission Reductions: $ER_y = BE_y - PE_y$. Where: Project Emissions; $PE_y=PE_{FF,y}+PE_{GP,y}+PE_{HP,y}$ $PE_{FF,y}$ does not apply as the project activity will not be	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				any use of fossil fuels for electricity generation. $PE_{GP,y}$ does not apply as the project activity does not involve the development of a geothermal electricity facility. $PE_{HP,y}$ = 0 as project activity power density is 127.27 W/m^2. Then PE_y=0. Baseline Emissions; $BE_y=EG_{PJ,y}$ x $EF_{grid, CM, y}$ As project activity is the installation of a new grid-connected renewable power plant $EG_{PJ,y}$ = $EG_{facility, y}$. Therefore $EG_{facility, y}$ for the project activity is 571,852.8 MWh, No leakage emissions are considered according to the ACM0002. In order to calculate $EF_{grid, CM}$, PP uses the "Tool to calculate the emission factor for an electricity system" (Version 02.2.1).		
B.6.1.2. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	90	EB 41 Ann 12		Yes, see question above.	OK	OK
B.6.1.3. If the methodology provides for selection between different scenarios or cases or options or default values for equations or parameters, has been an adequate justification provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence)? If yes, have correct equations and parameters been	90	EB 41 Ann 12		Yes, see question B.6.1.1	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
used, in accordance with the methodology selected?						
B.6.1.4. How is the justification given in the PDD for the choice of data and parameters used in the equations verified, including references to any other data sources used?	91 93			PP has justified the selection of data and parameters in PDD. $EG_{facility,\ y}$ = 571,852.8 MWh. This data is calculated taking into account the installed capacity (240MW) multiplied by 8760 (hours/year) and plant load factor. As indicated above, PP has provided evidence. See Validation report.	~~CL #3~~ OK	OK
B.6.1.5. Is the choice of options to determine the emissions factor (OM, BM) justified in a suitable and transparent manner?				For the calculation of the OM, PP chooses Option B and justifies in PDD. For the calculation of the BM, PP chooses Option 2 and justified in PDD. For the calculation of the CM, PP chooses Weighted average CM.	OK	OK
B.6.1.6. Are the steps as defined per the "Tool for calculation of emission factor for electrical systems" correctly applied by the project participants?				For the calculation of the $EF_{grid,\ CM}$ follows the steps indicated in the "Tool to calculate the emission factor for an electricity system" (Version 02.2.1). Step 2: PP has chosen Option I with only grid power plants are included in the calculation. Step 3: PP has chosen Simple OM as the low-cost/must-run resources in Mexico are well below 50% of total grid generation. Also PP chooses the Ex-ante option as data publicly available normally is published at the end of the year after the end of the reporting year. Step 4: PP has chosen Option B, as data is available. $$EF_{grid,OM,simple,y} = \frac{\sum_i FC_{i,y} \cdot NCV_{i,y} \cdot EF_{CO2,i,y}}{EG_y}$$ PP takes data from 2008, 2009 and 2010. Step 5: PP has chosen Option 1 using the following equation:	OK	OK

<table>
<tr><th>Checklist items</th><th>VVM V01.2 §§</th><th>EB requirement</th><th>References</th><th>Comments</th><th>Finding</th><th>Final Finding</th></tr>
<tr><td></td><td></td><td></td><td></td><td>$$EF_{grid,BM,y} = \frac{\sum_m EG_{m,y} \cdot EF_{EL,m,y}}{\sum_m EG_{m,y}}$$
Step 6: PP calculates the weighted average CM using the equation as follows:
$$EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$$</td><td></td><td></td></tr>
<tr><td colspan="7">B.6.2. Data and parameters that are available at validation</td></tr>
<tr><td>B.6.2.1. For the data that will not be monitored during the crediting period and but has been determined and will remain fixed, how is it verified that all the assumptions and data sources are appropriate and calculations are correct, applicable to the proposed CDM project activity and will result in a conservative estimate of the emission reductions?</td><td>91</td><td>EB 41 Ann 12</td><td></td><td>Main data are available through official resources including yearbooks, website of Mexican Ministry of Energy (SENER), and IPCC default values. The data have been verified by the validation team by crosscheck with these official resources.</td><td>OK</td><td>OK</td></tr>
<tr><td>B.6.2.2. Parameter: $EF_{grid, CM,}$ y
Combined margin CO_2 emission factor for grid connected power generation in year y.</td><td></td><td></td><td></td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table></td><td>OK</td><td>OK</td></tr>
<tr><td>B.6.2.3. Parameter: $EF_{CO2, j, y}$</td><td></td><td></td><td></td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr></table></td><td>OK</td><td>OK</td></tr>
</table>

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
CO_2 emission factor of fossil fuel type *i* in year *y*.				Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.6.2.4. Parameter: A_{BL} Area of the reservoir measured in the surface of the water.				Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	OK	OK
B.6.2.5. Parameter: Cap_{BL} Installed capacity of the hydro power plant before the implementation of the project activity.				Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	OK	OK
B.6.2.6. Parameter: $\eta_{m,y}$ Average net energy conversion efficiency of power unit.				Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.6.2.7. Parameter: Cap_{PJ} Installed capacity of the hydro power after the implementation of the project activity.				Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	OK	OK
B.6.2.8. Parameter: A_{PJ} Area of the reservoir measured in the surface of the water after the implementation of the project activity.				Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	OK	OK
B.6.2.9. Parameter: $FC_{i,y}$ Amount of fossil fuel type consumed in year.				Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				Choice of data correctly justified? — Yes Measurement method correctly described? — Yes		
B.6.2.10. Parameter: $NCV_{i,y}$ Net calorific value (energy content) of fossil fuel type in year.				Data Checklist — Yes / No Title in line with methodology? — Yes Data unit correctly expressed? — Yes Appropriate description of parameter? — Yes Source clearly referenced? — Yes Correct value provided? — Yes Has this value been verified? — Yes Choice of data correctly justified? — Yes Measurement method correctly described? — Yes	OK	OK
B.6.3. *Ex ante* calculation of emission reductions						
B.6.3.1. Are the GHG calculations documented in a complete and transparent manner?		EB 41 Ann 12		Yes, documented in a complete and transparent manner in the ER spreadsheet.	OK	OK
B.6.3.2. Is each equation applied in a manner that enables the reader to reproduce the calculation (spreadsheet)?		EB 41 Ann 12		Yes, each equation is applied and it is reproducible in the ER spreadsheet.	OK	OK
B.6.3.3. Are additional background information and/or data provided in Annex 3, including relevant electronic files (i.e. spreadsheets)? Are the data and parameters included in these files consistent with each other?		EB 41 Ann 12		Yes, all additional background information and data are provided in Annex 3 and in the presented spreadsheets. Also data and parameters are consistent.	OK	OK
B.6.4. Summary of the *ex-ante* estimation of emission reductions						
B.6.4.1. Will the project result in fewer GHG emissions than the baseline		EB 41 Ann 12		Yes, the project activity will not result in any GHG emissions, the baseline is electricity generation from grid-connected power plants,	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
scenario?				which fossil fuels dominate.		
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?		EB 41 Ann 12		Yes. Table indicates per each year the following information: • Estimation of PA emissions: 0. • Estimation of Baseline Emissions: 299,436. • Estimation of leakage: 0. • Estimation of overall emission reductions: 299,436.	OK	OK
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?		EB 41 Ann 12		Yes. Estimation of overall emission reductions stars at the second half of the 2017 year and ends at the first half of the 2027 year.	OK	OK
B.6.4.4. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?		EB 41 Ann 12		Yes. Data presented in this section is consistent with data presented in other chapters and sections of the PDD.	OK	OK
B.7. Application of the monitoring methodology and description of the monitoring plan						
B.7.1. Data and parameters monitored						
B.7.1.1. For data and parameters will be monitored on implementation and hence become available only after validation of the project activity, how is it confirmed that the estimates provided in the PDD for these data and parameters are reasonable?	91			These data have been determined by the FSR taking into account the plant load factor of the project activity.	OK	OK
B.7.1.2. Parameter: $EG_{facility, y}$ Quantity of the net electricity generation supplied by the project activity to the grid in year *y*.				Monitoring Checklist / Yes / No Title in line with methodology? / Yes Data unit correctly expressed? / Yes Appropriate description of parameter? / Yes Source clearly referenced? / Yes	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
				Correct value provided for estimation? Yes Has this value been verified? Yes Measurement method correctly described? Yes Correct reference to standards? N/A Indication of accuracy provided? N/A QA/QC procedures described? Yes QA/QC procedures appropriate? Yes		
B.7.2. Description of the monitoring plan						
B.7.2.1. Is the monitoring plan consistent with the approved methodology?	122			Yes.	OK	OK
B.7.2.2. Does the monitoring plan contain all necessary parameters?	123(a)			Yes. Monitoring plan includes: • Calibration of the electricity meters every 2 years. • Monitoring data adjustment procedures. • Internal GHG audit procedures. • Etc.	OK	OK
B.7.2.3. Is the operational and management structure described in PDD? Are the responsibilities for and institutional arrangements for data collection and archiving clearly indicated?		EB 41 Ann 12		Yes. See PDD Annex 4. There PP has included a matrix which defines different tasks and who is responsible to execute, who is responsible for overseeing and assuring quality of data, etc.	OK	OK
B.7.2.4. Does the monitoring plan reflect good monitoring practice appropriate to the type of project activity? Does the monitoring plan include the data management and quality assurance and quality control procedures, which are sufficient to ensure that the emission reductions achieved	123(b)	EB 41 Ann 12		Yes. Monitoring plan reflects good monitoring practice, and those are appropriate to the type of project activity. Yes. Monitoring plan includes data management and quality assurance even includes quality control procedures.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
by/resulting from the proposed CDM project activity can be reported ex post and verified?						
B.7.2.5. Is there any relevant further background information provided in Annex 4? If any, is the information consistent?		EB 41 Ann 12		Yes. Main information about monitoring plan is included in Annex 4. This information is consistent with the information included in PDD section B.7.	OK	OK
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)						
B.8.1. Is there any indication of a date when the baseline was determined?		EB 41 Ann 12		Yes. In PDD section B.8 it is indicated, that the baseline was determined on 23/04/2012.	OK	OK
B.8.2. Is this consistent with the time line of the PDD history?		EB 41 Ann 12		~~Please modify the PDD in order to include in the timeline of events of the project activity the validation that is going on, and other events such as the contract between C.F.E. and Carbons Solutions de México, SA de CV.~~ ~~Also, please provide copy of the e-mails sent by PP to the UNFCCC and the Mexican DNA for prior consideration~~. PP has modified the PDD including in the timeline the information requested, also e-mails for prior consideration has been provided.	~~CL #6~~ OK	OK
B.8.3. Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?		EB 41 Ann 12		Yes. Carbon Solutions de México, SA de CV represented by Alfonso Lanseros, is responsible for the application of the baseline and monitoring methodology.	OK	OK
B.8.4. Is information provided whether this person / entity also considered a project participant?		EB 41 Ann 12		Yes. Carbon Solutions de México, SA de CV is a project participant.	OK	OK
C. Duration of the project activity / crediting period						
C.1. Duration of the project activity						

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?		EB 41 Ann 12		Yes. Project activity starting date will be 31/10/2012.	OK	OK
C.1.2. Is a description provided how this start date has been determined, and is a description of the evidence available to support this start date?		EB 41 Ann 12		The starting date is determined by the date of the signature of the contract of the construction of the project activity.	OK	OK
C.2. Choice of the crediting period and related information						
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?		EB 41 Ann 12		The crediting period chosen is 10 years not renewable.	OK	OK
D. Environmental Impacts						
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts						
D.1.1. Has the analysis of the environmental impacts of the project activity been sufficiently described?	131			Yes. The environmental impact assessment for the proposed project activity was performed by the University of Sciences and Arts of Chiapas. The EIA was completed and presented to the SEMARNAT (Natural Resources and Environmental Secretary) on 30/06/2011. ~~Please provide Chapter IV of the EIA to the DOE.~~ Chapter IV of the EIA has been provided (P124_VAL_146)	OK ~~CL #7~~	OK
D.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	132			Yes. Mexican requirements about EIA are regulated by the LGEEPA (General Law of Ecological Balance and Environmental Protection). The EIA performed was approved by the SEMARNAT on 09/09/2011.	OK	OK
D.1.3. Will the project create any adverse environmental effects?	132			Environmental impacts identified are considered moderate. EIA also establishes mitigation measures in order to reduce those impacts.	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
D.1.4. Were transboundary environmental impacts identified in the analysis?	132			No transboundary environmental impacts were identified in the EIA	OK	OK
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party						
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	132			Yes. See PDD section D.	OK	OK
D.2.2. Does the project comply with environmental legislation in the host country?	132			Yes. See questions D.1 above	OK	OK
E. Stakeholder's comments						
E.1. Brief description how comments by local stakeholders have been invited and compiled						
E.1.1. Have local stakeholders been invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	128			Yes, a local stakeholder consultation was held on 10/04/2012, while the project activity was published on the UNFCCC website on 09/05/2012.	OK	OK
E.1.2. How the relevant stakeholders been consulted? Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	129(a)			The stakeholders' consultation consisted in a presentation by members of the CFE. The process is clearly described in PDD section E.	OK	OK
E.1.3. Have appropriate media been used to invite comments by local stakeholders?		EB 41 Ann 12		Stakeholders where invited by invitation letters and e-mails.	OK	OK
E.1.4. If a stakeholder consultation process is required by regulations/ laws	128			According to the Mexican laws and regulations the stakeholder consultation is not a mandatory requirement unless it is required by a	OK	OK

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?				third party.		
E.2. Summary of the comments received						
E.2.1. Is a summary of the stakeholder comments received provided?	129(b)	EB 41 Ann 12		Yes. See PDD Section E.2.	OK	OK
E.3. Report on how due account was taken of any comments received						
E.3.1. Has due account been taken of any stakeholder comments received?	129(c)	EB 41 Ann 12		No negative comments where received during the stakeholder process.	OK	OK
F. Annexes 1 - 4						
F.1. Annex 1: Contact Information						
F.1.1. Is the information provided consistent with the one given under section A.3?		EB 41 Ann 12		Yes. Project Participants are consistent with the information given in section A.3	OK	OK
F.1.2. Is the information on all private participants and directly involved Parties presented?		EB 41 Ann 12		Yes, information on all private participants (Caron Solutions de México, SA de CV) is presented.	OK	OK
F.2. Annex 2: Information regarding public funding						
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?		EB 41 Ann 12		There will be no public funding from Annex I Parties. This information is in accordance with the information provided in Section A.4.5	OK	OK
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?		EB 41 Ann 12		N/A	N/A	N/A

Checklist items	VVM V01.2 §§	EB requirement	References	Comments	Finding	Final Finding
F.3. Annex 3: Baseline information						
F.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?		EB 41 Ann 12		Yes, the information is consistent with data presented in other parts and sections of the PDD	OK	OK
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?		EB 41 Ann 12		Yes. Data has been verified by crosschecking it with its sources.	OK	OK
F.4. Annex 4: Monitoring information						
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?		EB 41 Ann 12		Yes. Information provided in this section is consistent with data presented in other parts of the PDD	OK	OK
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?		EB 41 Ann 12		Yes. See question B.7 above.	OK	OK
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?		EB 41 Ann 12		Yes. See question B.7 above	OK	OK