VALIDATION REPORT

CAMCO CARBON INTERNATIONAL LIMITED

VALIDATION OF THE MACEDONIAN MICROSCALE GRID-CONNECTED HYDROELECTRICITY PROGRAMME

REPORT NO.BULGARIA-VD/0006/2012

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BUREAU VERITAS CERTIFICATION

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Camco Carbon International Limited	JI/CDM Manager Ryumin Oleg

Summary:

Bureau Veritas Certification has conducted the validation of Macedonian Microscale Grid-connected Hydroelectricity Programme , with Camco Carbon International Limited acting as CME, which is located in the Republic of Macedonia, on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the validation process is a list of Clarification Requests, Corrective Actions Requests, and Forward Actions Requests (CLs, CARs and FARs), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the PoA and the proposed CPA MAC0001-Jablanica correctly apply the baseline and monitoring methodology AMS-I.D. "Grid connected renewable electricity generation" ver.17 and meets all relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests the registration of the project as a CDM project activity.

Report No.:	Subject Group:	
COUNTRY-VD/0006/2012	CDM	
Project title:		
Macedonian Microscale Grid-connected Hydroelectricity Programme		
Work carried out by:		
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Internal Technical Review carried out by:		
Mr. Ashok Mammen		
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Work approved by:
Flavio Gomes

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Abbreviations

BVCH	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
FAR	Forward Action Request
GHG	Green House Gas(es)
MoV	Means of Verification
MP	Monitoring Plan
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1. INTRODUCTION

Camco Carbon International Limited has commissioned Bureau Veritas Certification to validate its CDM project Macedonian Microscale Grid-connected Hydroelectricity Programme (PoA) and MAC0001-Jablanica CPA at tthe Republic of Macedonia.

This report summarizes the findings of the validation of the PoA and CPA performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1. Objective

The objective of a validation is to provide a through and independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan, and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design, as documented, is sound and reasonable, and meets the applicable CDM requirements and 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, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the requirements of paragraph 37 of the CDM M&Ps, the applicability conditions of the selected methodology and guidance issued by the Board.

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

1.3. Validation Team

The assessment team and internal technical reviewer team consist of the following personnel:

FUNCTION	NAME	TA 1.2	TASK PERFORMED*
Team Leader	Mr. Tomas Paulaitis	☒	☒**DR** ☒**SV** ☒**RI** ☐**TR**
Technical Specialist	Mr. Viktor Milkov	☒	☒**DR** ☒**SV** ☐**RI** ☐**TR**
Internal Technical Reviewer (ITR)	Mr. Ashok Mammen	☒	☐**DR** ☐**SV** ☐**RI** ☒**TR**

*DR = Document Review; SV = Site Visit; RI = Report issuance; TR = Internal Technical Review

2. METHODOLOGY

The overall validation, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual, issued by CDM Executive Board at its 55th meeting on 30/07/2010 /39/ The protocol shows, in a 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;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

2.1. Review of Documents

The PoA-DD and CPA-DD) submitted by Camco Carbon International Limited and additional background documents related to the project design and baseline was reviewed.

Furthermore, cross checks were made between information provided in PoA-DD and CPA-DD, and information from sources other than those used.

To address Bureau Veritas Certification corrective action and clarification requests, Camco Carbon International Limited revised the PoA-DD and CPA-DD and resubmitted them on 13/11/2012.

The validation conclusions presented in this report relate to the project as described in the PoA-DD version 1.7 /2/ and CPA-DD version 1.9 /6/.

2.2. Follow-up Interviews

On 18-19/04/2012, Bureau Veritas Certification performed a site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Camco Carbon International Limited and the CPA implementing entity MHE Jablanica DOO, Skopje were interviewed (see References). No visit to the construction site was made during the site visit because the construction works of SHPP Jablanica had not started yet.

The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Camco Carbon International Limited - Coordinating/managing entity (CME);	➢ Project background information and CDM consideration. ➢ Project technology, operation and maintenance. ➢ Project approval and implementation status. ➢ Project management and monitoring plan.

MHE Jablanica DOOSkopjeCPA implementing entity)	➢ Stakeholder consultation process. ➢ Common practice in the area. ➢ Government policies related to the project activity.
Local Stakeholder	➢ Project background in details ➢ Stakeholder comments ➢ Social and environmental impact of the project
Camco Carbon International Limited (the Consultant)	➢ Applicability of selected methodology. ➢ Baseline determination. ➢ Emission reductions calculation. ➢ Emission reduction monitoring plan.

2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the validation is to resolve issues that require further elaboration, research or expansion prior to Bureau Veritas Certification's positive conclusion on the project design.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable, verifiable and additional emission reductions;

(b) The applicable CDM requirements have not been met;

(c) There is a risk that emission reductions cannot be monitored or calculated.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A Forward Action Request (FAR) may also be raised during validation, to identify issues related to project implementation that require review during the first verification of the project activity.

To guarantee the transparency of the validation process, the issues raised, the responses provided by the project participants, the means of validation of such responses and references to any resulting changes in the PoA-DD and CPA-DD or supporting annexes are documented in the Validation Protocol in Appendix A.

2.4. Internal Technical Review

The validation report underwent an Internal Technical Review (ITR) before requesting registration of the project activity.

The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for

conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

- The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs and CLs during the validation exercise, review of sample documents.

The reviewer may raise Clarification Requests to the validation team and will discuss these matters with the Team Leader.

After the agreement of the responses to the Clarification Requests from the validation team as well as the PP(s), the finalized validation report is accepted for further processing such as uploading via the UNFCCC interface.

3. VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in 3 CAR(s), 7 CL(s) and 1 FAR(s).

The CARs and CLs were closed out based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section corresponds to the VVM paragraph.

3.1. Approval (43-44)

The letter of approval has not been received at the time of the on-site visit, hence CL1 was issued: “Please, provide from the project participants a written approval of voluntary participation from the designated national authority of each Party involved.”

The Letter of Approval was issued by Ministry of Environment and Physical planning of the Republic of Macedonia on 23/11/2012 and by NL Agency Ministry of Infrastructure and the Environmental (The Netherlands) on 29/11/2012 for project participant Camco Carbon International Limited.

Bureau Veritas Certification received the Letters of Approval from the project participant. Bureau Veritas Certification does not doubt the authenticity of the said letters, since the validation team verified the original documents.

The letter of approval clearly states that Republic of Macedonia has ratified the Kyoto Protocol and that the approval is for voluntary participation in the CDM project activity. Also, the Letter of approval states that the project activity contributes to sustainable development.The Letter of Approval issued by NL Agency Ministry of Infrastructure and the Environmental (The Netherlands) states that the Netherlands is Party to the Kyoto Protocol, the participation is voluntary and the letter refers to the proposed CDM project activity title in the PoA-DD. Hence CL1 is resolved and closed.

3.2. Authorization (49)

The participation for project participant Camco Carbon International Limited has been approved by Parties of the Kyoto Protocol yet, see section 3.1 above.

3.3. Sustainable Development (52)

The host Party's DNA has confirmed the contribution of the Project to the sustainable development of the host Party yet, please refer to section 3.1 of this report.

3.4. Project Design Document (55)

Bureau Veritas Certification hereby confirms that the SSC-PoA-DD and a real case SSC-CPA-DD (MAC0001-Jablanica) complies with the latest forms of the guidance documents for completion of SSC-PoA-DD and SSC-CPA-DD. Further it is confirmed that The PoA-DD Version 1.0, dated 22/12/2011 and CPA-DD Version 1.0, dated 29/02/2012, submitted by the CME for web-hosting were assessed by validation team for completeness and found that they are meeting the requirements laid down by "Programme of Activities Design Document form" version 01.0 /35/.

The GSP version of the specific CPA MAC0001-Jablanica was erroneously put on the form for large scale projects, i.e. CDM-CPA-DD and corrected in the later versions.

The last revised versions of the SSC-PoA-DD and SSC-CPA-DD are also found in accordance with "Programme of Activities Design Document form" version 01.0 /35/.

Hence, validation team confirmed that the PoA-DD and the CPA-DD are in accordance with para.57/VVM.

3.4.1. Specific PoA Requirements

a. Eligibility criteria for Enrolling CPA

According to the "Clarifications regarding the procedures for registration of a Programme of Activities as a single CDM Project Activity and issuance of Certified Emission Reductions for a Programme of Activities" Version 01 /36/, a full additionality assessment is not required in the context of component project activities (CPA), rather the confirmation of additionality for CPAs should be concluded by means of the eligibility criteria.

"Macedonian Microscale Grid-connected Hydroelectricity Programme "managed by Camco Carbon International Limited clearly establishes eligibility criteria for inclusion of a project as a CPA under the PoA in section A4.4.2 of PoA-DD. There are 11 eligibility criteria identified and established by CME. The validation team has validated these criteria and found that selected criteria are in line with the CDM PoA requirement "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" Version 01 [37] as well as the approved methodology used by the CME to develop this PoA. List of criteria validated by the validation team is as given below.

To be eligible for inclusion each CPA needs to provide documented evidence that all eligibility criteria have been met. Moreover, each CPA shall include the following checklist in the CPA-DD to prove its compliance with the requirements of the PoA:

1. Project type, category and technology fit
   - 1.1. The CPA installs =<5 MW and falls into the following type and categories as defined by Appendix B of the 'Simplified modalities and procedures for small scale CDM project activities':
     - Type I - Renewable energy project
     - Category: I.D. – Renewable energy technologies that supply electricity to a grid
     - Sub-category: Renewable energy generation units utilizing hydropower for electricity generation.
   - 1.2. The plant should be a run-of-river power plant. According to the World Commission of Dams (2000), a run-of-river hydro power plant is characterized as having "dams that created a hydraulic head in the river to divert some portion of the river flows. They have no storage reservoir or limited daily poundage."
   - 1.3. The plant should be a Greenfield plant and must not involve retrofitting or modifying of an existing facility for renewable energy generation.
   - 1.4. To ensure there is no leakage, no energy generating equipment should be transferred from another activity to the CPA and no existing equipment is going to be transferred to another activity.
2. Eligibility as microscale project activity
   - 2.1. The CPA has installed capacity of <=5MW, in conjunction with the "General Guidelines to SSC CDM methodologies" (ver. 19).
   - 2.2. The project activities should remain under the threshold of 5MW each year of the crediting period. In cases where *ex ante* projected emissions reductions show an increase during the crediting period, project activities that go beyond the microscale limits in any year of the crediting period are not eligible.

2.3. If multiple sites are included under a single CPA, the aggregate capacity of the CPA is under the 5MW constraint.

3. Location, boundary, and additionality

3.1. The CPA should be consistent with the geographical boundary set in section A.4.1.2 of the PoA-DD.

3.2 The CPA should be able to demonstrate its additionality as described in Section E.5.1 of the PoA-DD.

4. Methodological fit

The CPA should meet all applicability conditions as listed in the most recent version of methodology AMS-I.D and explained in section E.2 of PoA-DD.

5. The starting date of the CPA should be after the date of commencement of the PoA validation, i.e. the date when the PoA-DD is first published for global stakeholder consultation (in line with the CDM Glossary of Terms, Version 06). The owner of the CPA should be able to confirm the start date of the project activity through documentary evidence.

6. Debundling check

The CPA should be able to demonstrate that it is not a debundled component of a larger project, as set out in section A.4.4.1 of the PoA-DD.

7. Double counting check

The CPA should be able to demonstrate that it is not a debundled component of a larger project, as set out in section A.4.4.1 of the PoA-DD.

8. Public funding

The CPA should indicate if the project received any public funding from Annex I Parties. In case funding from Annex I Parties was received, affirmation that this funding does not result in a diversion of official development assistance should be given.

9. Environmental impact assessment

The CPA should provide a state approved environmental impact assessment (EIA) report.

10. Stakeholder consultations

The CPA should be able to provide relevant evidence that comments from local stakeholders were invited and compiled.

11. Management and legal matters

11.1. The CPA must comply with all testing and certification requirements for hydropower technologies in the host country of Macedonia.

11.2. The CPA must agree to comply with the prescriptions of the operational and management procedures set out in section A.4.4.1 of the PoA-DD.

11.3. The CPA must agree to adhere to the monitoring plan (section A.4.4.2 of the PoA-DD) and collect monitoring data (as specified by the parameters as listed in sections E.6.3 and E.7.1 of the PoA-DD).

11.4. The CPA should be implemented as a voluntary initiative and not due to mandatory policies or regulations.

11.5. The CPA should enter in a contractual agreement with the CME to regulate the ownership and transfer of the emission reductions.

Based on the detailed validation of Eligibility criteria for inclusion of PoA, the validation team herewith confirms that:

- The eligibility criteria are verifiable and are in compliance with EB 65 Annex 3.
- The eligibility criteria established by the CME are sufficiently objective and Comprehensive enough to permit the assessment of the inclusion of CPAs in the PoA.

b. Operational and Management Arrangement for the PoA (166)

As described in the PoA-DD, the CME is responsible for the management of PoA and monitoring plan for each individual CPA. Operational management plan presented by the CME in the PoA-DD, Version 1.7 dated 23/10/2012 ***/2/*** is found comprehensive and is in compliance with "Procedure for Registration of a Programme of Activities as a single CDM project activity and issuance of certificate emission reduction for a Programme of Activities", Version 04.1 ***/38/***.

The CME has defined roles and responsibilities for various roles in the management of this PoA and it is evident that Monitoring plan for the PoA is established and comprises of important elements as listed below:

(I) A record keeping system for each CPA under the PoA - CME has established a record keeping system wherein each CPA will be identified by an unique identification number and at the time of CPA inclusion

(II) A system /procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA – CME has established a record keeping system wherein each CPA will be identified by an unique identification number and at the time of CPA inclusion CME will cross check with UNFCCC, CD4 CDM Data and VCS registry to ensure that the CPA is not registered either single CDM project or part of PoA. Also CME has made a provision to obtain declaration in writing as a Mandate from CPA operators that "there is no double counting of CERs from this CPA under any CDM Project or CPA in another PoA". This is found in compliance with EB 55 Annex 38 Para 6(i).

(III) The SSC CPA included in the PoA is not a de-bundled component of another CDM programme activity (CPA) or CDM project activity. – CME has established an arrangement to ensure that CPA included in the PoA is not a de-bundled component of another PoA or CDM project activity. As per the eligibility check condition no 12 above, CME will verify each CPA against Para 8,9 and 10 of EB 54 Annex 13.

(IV) The CPA Operators are aware and have agreed that their activity is being subscribed to the PoA – CME will be signing Contract with each CPA operator whose CPA will be included in the PoA.

CME has established a comprehensive, CME Management manual ***/40 /*** to comply with the eligibility criteria. This manual describes a management system such as: (i) organization chart, (ii) responsibility of each position, (iii) training, (iv) document control, (v) procedures for technical review of CPA inclusion, (vi)

procedures for avoiding double counting, (vii) non-conformity and corrective & preventive actions, (vii) Internal Audit Review, (viii) Management Review, (ix) Continuous Improvement, etc.
Hence Validation team concluded that the operational and management arrangement for this PoA is in line with applicable EB guidelines as well as VVM Para 166

c. Validation of the First Specific CPA-DD (MAC0001-Jablanica CPA)(168)

The MAC0001-Jablanica CPA complies with all the eligibility criteria and therefore is eligible to be included under the PoA. The justifications are as follows:

(1) The new project fulfills all applicability conditions of AMS-I.D methodology, version 17;

(2) There is no enforced regulation in Macedonia that requires the building of small hydro-power plants;

(3) The CPA is in compliance with all laws and regulations in Macedonia,

(4) The CPA is approved by CAMCO as the managing entity;

(5) The CPA has total installed rated capacity of the water turbine is 3.624 MW which is less than the established capacity limit of 5 MW as per the Approved Methodology condition AMS I.D, Version 17 .

This has been further confirmed during the site visit and interviews with the project participants. Detailed discussion about Validation of MAC0001-Jablanica CPA is provided further in this Validation Report.

3.5. Changes in the Project Activity (17)

The major differences between the final PoA-DD version 1.7 and CPA-DD version 1.9 and the webhosted PoA-DD version 1.0 and CPA-DD version 1.0 are listed in Table 2 below:

Table 2 Changes between the final PoADD/CPA-DD, and the webhosted PoA-DD/CPA-DD

Item	PoA-DD version 1.0 (Webhosted)	PoA-DD version 1.7 (Final)	Validation Opinion
Name of the Project participant	"Camco Carbon Limited	Camco Carbon International Limited	The name of the company Project participant is correctly listed
Second host country	United Kingdom of Great Britain and Ireland	The Netherlands	The host country is corrected
v. Procedures for inclusion of a CPA in the PoA	-	Additional check for additionality added: Decision if Approach A or B, as set in Section E.5.2, is applicable for the particular CPA. In case of Approach A, no additional information will be reviewed – the CPA is automatically additional. In case of Approach B, additionality analysis as per the relevant guidance will be carried. Additional requirement for avoiding double counting added: Will adhere to the contract for the ownership and transfer of the emission reductions under the Clean Development Mechanism of the UNFCCC.	The additional checks contribute to make the additionality and double counting check check more transparent and precise and in line with the PoA guidelines.

C.2.Documentation on the analysis of the environmental impacts, including transboundary impacts	-	Statement added: Not available on the PoA level.	The amendmend corresponds to the requirements of the "Programme of Activities Design Document form" version 01.0
E.5.1. Assessment and demonstration of additionality for a typical SSC-CPA	-	New explanations added regarding the demonstration of additionality of a microscale projects – Approach A and Approach B	The amendmend corresponds to the requirements of the "Guidelines for Demonstrating Additionality of Microscale Project Activities" (Version 04)
E.6.3 NVC of lignite used in plant m during year y	-	Data of Bitola and Oslomej added	The correction was required by the auditor
E.7.1 EGy	-	Additional information added regarding the calibration of the electric meters.	The amendment clarifies the responsibilities for calibration of the electric meters.
Emission Factor of the Macedonian grid	0.968	0.953	Change is affected as result of response to CL7 (NVC values for lignite were not referenced correctly for a year 2009 and hence revised emission reduction spreadsheet *Macedonian SHPP PoA_ER_ver.1.1.* was provided for validation). All used data where reviewed by validation team during site visit and

			was found in line with initial source of data (ELEM annual reports 2008, 2009, 2010 where used for lignite NCV values).
Assessment and demonstration of additionality	Guidelines for demonstrating additionality of microscale project activities" ver. 03 (EB 63) was used to asses and demontrate additionality.	Guidelines for demonstrating additionality of microscale project activities" ver. 04 (EB 68) was used to asses and demontrate additionality.	During the validation process new version of guidelines was issued (20/07/2012), therefore final PDD version 1.7 was amended in line with requirements of the valid version.
Item	CPA-DD version 1.0 (Webhosted)	CPA-DD version 1.9 (Final)	Validation Opinion
Turbine capacity	3.023 MW	3.624 MW	The difference is less than 10% and has no significant influence on the project. It is due to the fact that the final technical design is not yet decided. FAR 1 is placed in the Validation Protocol in this respect.
Working hours annually	3,443.9 h/y	3,381 h/y	The difference is less than 10% and has no significant influence on the project. It is due to the fact that the final technical design is not yet decided. FAR 1 is placed in the Validation Protocol in this respect.
Generated electric	10,411 MWh	11,112 MWh	The difference is less than 10% and has no

energy per annum			significant influence on the project. It is due to the fact that the final technical design is not yet decided. FAR 1 is placed in the Validation Protocol in this respect.
Emission Reductions per annum estimated	10,107 tCO_{2e}	10,590 tCO_{2e}	The difference is less than 10% and has no significant influence on the project. It is due to the fact that the final technical design is not yet decided.
CPA-DD form	The specific CPA MAC0001-Jablanica was erroneously put on the form for large scale projects, i.e. CDM-CPA-DD	The CPA was put on the proper SSC-CPA-DD form	The CPA used the proper SMALL-SCALE CDM PROGRAMME ACTIVITY DESIGN DOCUMENT FORM (CDM-SSC-CPA-DD) - Version 01

3.6. Project Description (64)

The proposed PoA aims to facilitate the development of small scale grid-connected hydropower technologies in the Republic of Macedonia.
A typical CPA included in the PoA will be:

- Newly build hydro power generation unit(s) using run-of-the-river equipment; and
- Supplying electricity to the Macedonian national grid; or supplying electricity to an identified consumer via national/regional grid by means of contractual agreement; and
- Having installed capacity less than or equal to 5MW (i.e., microscale).

The MAC0001-Jablanica CPA is a newly built hydro-electric power plant located in the Former Yugoslav Republic of Macedonia, near the village of Piskupstina, municipality of Struga on Jablanica river, which has geographical coordinates of north latitude 41°19’13” and east longitude 20°36’05”.

The CPA involves the construction of 3.624 MW run-of-the river plant (one vertical Pelton turbine with 6 nozzles) that will supply electricity to the Macedonian grid.

The project activity employs standardized SHPP technology which has been used worldwide, is safe to the environment, and has minimum degree of maintenance requirements. The design of the intake structures ensures that the installed flow is captured while the biological minimum is

released into the river bed. The intake structures will also be equipped with a fish passage and the design itself will be incorporated into the natural surroundings. This also applies to the settling basin. The design of the power houses will provide safe operation during the lifetime of the project and will also be designed in such a manner that will provide minimal impact to the natural surroundings. No dams will be constructed and there will be no risk of floods. The electromechanical equipment that will be installed is of such design that provides a high degree of safety and poses no threat to the environment.

The accuracy and completeness of the project description was validated by assessment of the following documentation:

SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011. /9/

Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000. /10/

Equipment Purchase Agreement signed between MHE Jablanica DOO, Skopje and Global Hydro Energy GMBH, dated 06.09.2012. /11/

All documents presented by the PP to the auditing team were original with original signatures and stamps and were considered authentic and reliable..

The First CPA MAC0001-Jablanica will result in annual emission reductions of 105,897 tCO_{2e} during the ten years of its fixed crediting period.

The validation team confirms that the estimated PLF of 38.59 % is sourced from Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000. /10/, which is complying with the Para. 2 of "Guidelines for the Reporting and Validation of Plant Load Factors" version 01.

The validation did not reveal any information indicating that the Project can be seen as a diversion of official development assistance (ODA) funding towards the host country.

The processes undertaken by the validation team to validate the accuracy and completeness of the project description include conducting a site inspection and interviews to the office of the CPA implementing entity, reviewing available designs and feasibility/hydrology studies, conducting comparison analysis with equivalent projects.

The audit team conducted a visit to the office of the company MHE Jablanica DOO in Scopje and did not conducted a visit to the construction site because construction works on the project have not started yet.

Bureau Veritas Certification hereby confirms that the project description in the final PoA-DD version 1.7 and CPA-DD version 1.9 is accurate and complete in all respects.

3.7. Baseline and Monitoring Methodology

3.7.1. Applicability of the selected Methodology (77)

According to the eligibility criteria for inclusion of a CPA in Macedonian Microscale Grid-connected Hydroelectricity Programme, the CPA should meet all applicability conditions as listed in the most recent version of methodology AMS-I.D.

The CPA MAC0001 - Jablanica uses the most recent approved baseline and monitoring methodology AMS-I.D, Version 17 – "Grid connected renewable electricity generation" /17/. The applicability of the selected methodology is justified and assessed as follows:

Applicability condition (1):
This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:

a. Supplying electricity to a national or a regional grid; or
b. Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.

Assessment: The CPA MAC0001-Jablanica will use hydro power to supply electricity to the national grid. Hence this condition is met. In order to verify this condition the audit team studied the SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /9/ and the Equipment Purchase Agreement signed between MHE Jablanica DOO, Skopje and Global Hydro Energy GMBH, dated 06.09.2012 /11/.

Applicability condition (2):
This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).

Assessment: The SHPP is Greenfield plant, hence this condition is met. This was confirmed by the audit team by studying the SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /9/ and the Equipment Purchase Agreement signed between MHE Jablanica DOO,. Skopje and Global Hydro Energy GMBH, dated 06.09.2012 /11/. This was also confirmed by the tender documents for the concession on water and Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000 /10/.

Applicability condition (3):
Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:

- The project activity is implemented in an existing reservoir with no change in the volume of reservoir;
- The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m2;

- The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m2.

Assessment: The CPA MAC0001-Jablanica does not use reservoirs, hence this criteria is not applicable.This was confirmed by the audit team by studying the SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /9/ and the tender documents for concession on water from Jablanica river /14/ which do not envisage the construction of a dam and the Environmental Impact Assessment Report /12/ prepared for the project.

Applicability condition (4):
If the new unit has both renewable and nonrenewable components (e.g. a wind/diesel unit), the eligibility limit of 15MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15MW.

Assessment:
The CPA MAC0001-Jablanica does not involve any non-renewable components. This criterion is therefore not applicable. The SHPP capacity is 2.287 MW, which is within the limit of 15 MW set in the chosen (small-scale) methodology. This was confirmed by the audit team by studying the SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /9/ and the Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000 /10/.

Applicability condition (5):
Combined heat and power (co-generation) systems are not eligible under this category.
Assessment: The CPA MAC0001-Jablanica does not involve any CHP (co-generation). This criterion is therefore not applicable.

Applicability condition (6):
In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.

Assessment: The criterion is not applicable.

Applicability condition (7): In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.

Assessment: The criterion is not applicable.

Bureau Veritas Certification hereby confirms that the selected baseline and monitoring methodology, tool and other methodology component is previously approved by the CDM Executive Board, and is applicable to the CPA MAC0001-Jablanica, which complies with all the applicability conditions therein.

3.7.2.Project Boundary (80)

The PoA-DD states that the goal of the Macedonian Small Scale Grid-connected Hydroelectricity Programme (hereafter referred to as 'the PoA') is to develop a series of micro scale (=<5MW) hydroelectric plants in the Republic of Macedonia. The geographical boundaries of the PoA are the borders of the Republic of Macedonia.

The validation team has validated the project boundary of the CPA by:

(a) Assessing the relevant documents including SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /9/ and the Equipment Purchase Agreement signed between MHE Jablanica DOO, Skopje and Global Hydro Energy GMBH, dated 06.09.2012 /11/. This was also confirmed by the tender documents for the concession on water and Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000 /10/ as well as the tender documents for concession on water from Jablanica river /14/. The concession given to MHE Jablanica DOO is for a site situated in the Republic of Macedonia as visible from the tender documents.

The spatial extent of the first CPA MAC0001-Jablanica boundary is clearly defined in line with AMS-I.D, Version 17 – "Grid connected renewable electricity generation" /20/ as including the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to.

The CPA MAC0001-Jablanica boundary includes the intake, penstock and powerhouse (including substation). The electricity imported by the CPA MAC0001-Jablanica is accounted in the net electricity exported by the project activity. There are no other sources of project emissions. Hence, in line with the methodology, the Project participant has considered project emissions as zero. Further, the first CPA does not involve any transfer of equipment from or to the project activity and thus there is no leakage accountable to the project activity .

The greenhouse gas and emission sources included in the project boundary of CPA MAC0001-Jablanica is only CO_2 emissions from electricity generation in fossil fuel fired power plants that is displaced due to the project activity ..

Bureau Veritas Certification hereby confirms that the identified boundary of the first CPA MAC0001-Jablanica and the selected sources and gases are justified for the CPA. The validation team did not identify any emission sources that will be affected by the implementation of the proposed CPA and which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology.

3.7.3.Baseline Identification (87-88)

The procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied.

The methodology AMS-I.D ver. 17 prescribes baseline for the Project activity. The Macedonian Microscale Grid-connected Hydroelectricity Programme and CPA MAC0001-Jablanica is the

installation of a new grid-connected renewable power plant/unit. Hence, the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources in line with paragraph 10 of AMS-I.D ver. 17.

The DOE confirms that methodology AMS-I.D ver. 17 does not provide different options for equation above.

The Emission Factor can be calculated as follows:
a) The combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the approved methodology "The tool to calculate the emission factor for the electricity system".
OR
b) The weighted average emissions (in tCO2/MWh) of the current generation mix.

In the PoA-DD, the combined margin is calculated as per the
"Tool to calculate the Emission Factor for an electricity system", version 02.2.1.

The calculations are carried out in the Excel spreadsheet (file ER_Macedonian SHPP Bundle III_ver1.4.xlsx) and are based on data from an official data source.

This data is based on the tools to calculate the emission factor for the electricity system. The Project participant has applied weight factors for the OM and BM [50% & 50% respectively] as specified in the tool to arrive at the emission factor for the combined margin. Accordingly, the combined margin emission factor value for the Macedonian national grid is 0.953 t CO2/MWh.

Complying with para.87 and 88/VVM, the validation team hereby confirms that:

a) All the assumptions and data used by the project participants that need to be taken into consideration are given in the PoA-DD and the specific CPA-DD, including their references and sources.
b) All documentation used and relevant for establishing the baseline scenario and correctly quoted and interpreted in the PoA-DD and specific CPA-DD.
c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidences and can be deemed reasonable.
d) Relevant national and/or sectoral policies and circumstances are considered and listed in the specific PoA-DD and CPA-DD.
e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

3.7.4. Algorithms and/or Formulae used to determine Emission Reductions (92-93)

The steps taken and the equations and parameters applied in the PoA-DD and CPA-DD to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected methodology including applicable tool(s).

As required under AMS-I.D ver. 17, the project participant has calculated the baseline emissions by multiplication the quantity of net electricity supplied to the grid and the grid emission factor.
Baseline emissions:
The baseline emissions are the product of electrical energy baseline EG_{BL}, y expressed in MWh of electricity produced by the renewable generating unit multiplied by an emission factor:

$BE_y = EG_{BL,\,y} * EF_{CO2,gr\,id,\,y}$

Where:

BE_y = Baseline Emissions in year y (t CO2)
$EG_{BL,\,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
$EF_{CO2,\,grid,\,y}$ = CO2 Emission Factor of the grid in year y (t CO2/MWh).

Emission factor of the electrical grid:

1) According to "Tool to calculate emission factor for an electricity system" version 2.2.1 ***/***22***/***, the baseline emission factor was calculated as following 6 steps using most recent data source available publicly. By accessing and cross-checking available documents, the validation team confirms that the calculation in the PoA-DD is conducted consistently with provided documents.
   As per "Tool to calculate emission factor for an electricity system" version 2.2.1 /22/, 6 steps herein are conducted to calculate the emission factor:

   Step 1: Identify the relevant electricity systems
   Macedonian national electricity grid was selected as the electric power system of the PoA . The national grid of Macedonia is connected to the neighboring countries' electricity systems. From the options that the Tool specifies for how to treat emissions from connected electricity systems' imports, this Project uses the option of 0 tCO2/MWh.
   - The validation team is able to confirm that the identified electric power system of the Project is consistent with "Tool to calculate emission factor for an electricity system" version 2.2.1 /22/**.** The geographical extent of the Project activity system has been documented transparently and all grid power plants connected to the system have been identified.

   Step 2: Choose whether to include off – grid power plant in the project electricity system

Option I (only grid power plants are included in the calculation) is selected to calculate the operating margin and build margin emission factor. The project electricity system (i.e., the Macedonian Power Grid) includes only grid power plants and no off-grid generation.

   Step 3: Select a method to determine the operating margin (OM)

According to the procedures set in the "Tool to calculate the emission factor for an electricity system" (version 02.2.1) /22/, the calculation of the Operating Margin emission factor ($EF_{grid,OM,y}$) is based on one of the following four methods:

1. Simple OM, or
2. Simple adjusted OM, or
3. Dispatch Data Analysis OM, or
4. Average OM.

For the purposes of this project activity, the Simple OM (1) method is applicable since less than 50% of the total generation in the project electricity system (i.e., Macedonian national grid) comes from low-cost/must run resources in average of the five most recent years

For the calculation of the simple OM emission factor, the *ex-ante* option is selected. Since the emission factor has to be determined once at the validation stage, no monitoring and recalculation of the emissions factor during the crediting period is required. The data vintage prescribed by the Tool for the *ex-ante* option is a 3-year generation-weighted average. The most recent data available at the time of submission of the PoA-DD to the DOE for validation is the 3-year generation-weighted average for 2008, 2009 and 2010.

Step 4: Calculate the operating margin emission factor according to selected method
According to the procedures set in the "Tool to calculate the emission factor for an electricity system" (version 02.2.1), the simple OM emission factor is calculated as weighted average CO2 emissions per unit of grid electricity generation (tCO2/MWh) of all generating power plants serving the system, excluding low-cost/must-run power plants units.
From the two Options presented by the Tool to calculate the simple OM, this project utilizes Option A: Calculation based on average efficiency and electricity generation of each plant. Since all of the necessary data for Option A is available (i.e., emission factors and electricity generation of each plant), Option B is ruled out.
The data sources are deemed reasonable and the validation team confirms that the calculation can be replicated using the data and parameter provided in the PoA-DD .

Step 5: Calculate the build margin (BM) emission factor
The build margin emissions factor is the generation-weighted average emission factor (tCO2/MWh) of all power units m during the most recent year y for which power generation data is available,
The validation team hereby confirms that the data source and approaches taken are deemed reliable.

Step 6: Calculate the Combined margin (CM) emission factor:
According to "Tool to calculate emission factor for an electricity system" version 2.2.1 ***/***22***/***, the simple OM emission factor ($EF_{grid,OM,y}$) is calculated as 0.833 tCO_2e/MWh. Similarly, the BM emission factor ($EF_{Grid.BM,y}$) is calculated as 1.024 tCO_2e/MWh.

Therefore the combined baseline emission factor is determined ex-ante will remain fixed during the first crediting period:

$$EF_{Grid,CM,y} = 0.833x\ 0.5 + 1.024\ x\ 0.5 = 0.853\ tCO_2e/MWh$$

Emission reductions: The algorithm to calculate the emission reductions from the CPAs is described as:

ERy = BEy – PEy– Ly.

Where:
ERy is Emission reductions in year y (t CO2/y);
BEy is Baseline Emissions in year y (t CO2/y);
PEy is Project Emissions in year y (t CO2/y);
LEy is Leakage Emissions in year y (t CO2/y).

Since all the CPAs under this PoA are newly installed renewable energy project activities, therefore the GHG emission from the project activity is considered as zero (PEy = 0). As the technology used in this project is neither transferred to nor transferred from another activity, the leakage is considered to be zero (Ly = 0).
Hence emission reductions are equal to baseline emissions.

The validation team assessed the calculations of estimated emission reductions and found them correct:
The estimated annual average of **10,590 tCO2e** over the crediting period of emission reductions for the first CPA MAC0001-Jablanica represents a reasonable estimation using the assumptions of electricity production forecast given by the project and emission factor validated in section 3.8.3 of this report. The validation team confirms that the estimates of baseline emissions can be replicated using the information provided:

Parameter, Value	Source of Information	Validation Justification
Annual electricity supply to the grid, 11,112 MWh/y	Project designs Hydrology studies	The validation team accepts these estimates for the gross annual electricity generation since it meets the requirements as specified in the guidance for reporting and validation of Plant Load Factor (EB 48, Annex 11).
CO2 Emission Factor of the grid, 0.953 t CO2/MWh)	Refer 3.8.3 above.	Refer 3.8.3 above

In order to cross-check the information and data given in the PDD and relevant to the calculation of the Macedonian electrical grid emission factor the audit team studied the following documentation:

ER calculation tables (filename: Macedonian SHPP PoA_ER_ver.1.0.xlsx) /7/

ER calculation tables (filename: Macedonian SHPP PoA_ER_ver.1.2.xlsx) /8/

SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /9/

Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000 /10/

Contract signed between MHE Jablanica DOO and Camco Carbon International Limited , dated 12.09.2012 /11/

Equipment Purchase Agreement signed between MHE Jablanica DOO, Skopje and Global Hydro Energy GMBH, dated 06.09.2012 /12/

Preparation of the GHG Inventory for the Second National Communication under UNFCCC, 2010. Final Version of the National Inventory Summary Report /25/

Annual report of energy regulatory commission of Macedonia for 2010 (http://www.sobranie.mk/ext/materialdetails.aspx?Id=76e522b6-b6f6-4447-865e-446c1d560824) /26/

Elem Annual report 2010 (http://www.elem.com.mk/images/stories/godisni%20izvestai/

Godisen%20izvestaj%20za%20proizvodstvo%202010g.pdf) /27/

Elem Annual report 2009

(http://www.elem.com.mk/images/stories/godisni%20izvestai/ELEM-AR09-MKD-FINAL%20ZA%20WEB%201.pdf) /28/

Elem Annual report 2008 (http://www.elem.com.mk/images/stories/godisni%20izvestai/ELEM-AR09-MKD-FINAL%20ZA%20WEB%201.pdf /29/

All documents checked were retrieved from official company and government web-sites and are authentic and reliable. The documents presented by the PP to the auditing team were original with original signatures and stamps.The validation team has reviewed the calculations of project emissions, baseline emissions, leakage emissions and emission reductions. Corresponding calculations were carried out based on the ER calculation sheet /8/.The parameters and equations presented in the PoA and the specific CPA-DD and related documentations have been compared with the information and requirements presented in the methodology and respective tools.

It is important to notice that the Build and the Operating Margin were calculated using the ex-ante option in the specific CPA-DD, so no ex-post update will be necessary during the crediting period.
The assumptions and data used to determine the emission reductions are listed in the specific CPA-DD and all the sources have been checked and confirmed.

Complying with para 92 and 93/VVM, Bureau Veritas Certification hereby confirms that:

(a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;

(b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;

(c) All values used in the PDD are considered reasonable in the context of the proposed project activity;

(d) The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

(e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

3.8. Additionality (97)

As required by article 154 from the ‘Clear Development Mechanism Project Standard’ (EB 65, ver. 01.0): ”The coordinating/managing entity shall consider that a full additionality assessment is not required in the context of CPA. Instead, the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria”. Therefore, PP has stated correctly that the CPAs should demonstrate their additionality through fulfilling certain eligibility criteria for inclusion in the PoA.
Eligibility Criteria 3.2 is the relevant 'additionality test' for the CPAs (PoA-DD section A.4.2.2). This eligibility criteria is "derived from all the relevant requirements of the "Guidelines for demonstrating additionality of microscale project activities" (EB 68, ver. 04) in accordance with Article 8 of the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (version 01.0, EB 65).

As long as a new CPA can demonstrate that it meets the conditions for one of the presented approaches, the CPA shall be deemed additional. The set of conditions for each approach (A and B) and how demonstration of their fulfillment shall be performed at the time of inclusion of a CPA is summarized and explained comprehensively in PoA-DD Section E.5.2:

Approach A:
The Macedonian DNA submitted a recommendation on specific renewable energy technologies to be considered additional in Macedonia to the UNFCCC Secretariat on 04/09/2012. According to the submission the DNA recommends to consider any renewable energy project up to 5 MW using hydro, geothermal, on-shore wind, and renewable biomass power to produce electricity and to deliver it to the national grid. The Executive Board approved the recommendation on 01/11/2012. /34/

According to the "Procedure for Submission and Consideration of Microscale Renewable Energy Technologies for Automatic Additionality" (ver. 01.0), the automatic additionality for micro grid connected hydropower projects in Macedonia can be used as an additionality test for CPA inclusion for 3 years after its adoption by the EB.
Therefore, any grid-connected hydroelectricity producing CPA with installed capacity <=5 MW is deemed to be automatic additional and is eligible for inclusion in this PoA until 30/10/2015.

In case the automatic additionality is not extended after the first 3 years, new CPAs would have to demonstrate additionality using the prescriptions of Approach B.

Approach B:

In accordance with the "Guidelines on the demonstration of additionality of small-scale project activities" (ver. 09.0, EB69) and in line with the "Non-binding best practice examples to demonstrate additionality for SSC project activities", Approach B for additionality demonstration shall be based on investment barrier analysis. Framework requirements for the IRR calculation, the benchmark selection, and sensitivity analysis are provided in the PoA-DD section were assessed and found in accordance with "Tool for the demonstration and assessment of additionality" (ver. 06.1.0)" and "Guidelines on the assessment of investment analysis" (ver. 05.0, EB 62, Annex 5).

The proposed CPA MAC0001-Jablanica uses Approach A for the demonstration of additionality.
The additionality criteria are satisfied and MAC0001-Jablanica CPA has proved its additionality.
In order to verify that statement the audit team studied the geographical coordinates of the CPA and the following documents:
SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011 /6/;
Equipment Purchase Agreement signed between MHE Jablanica DOO, Skopje and Global Hydro Energy GMBH, dated 06.09.2012 /12/;
EB positive decision on Macedonian DNA Proposal for automatic additionality (PRT008 - http://cdm.unfccc.int/DNA/submissions/index.html) /34/

3.8.1.Prior consideration of the Clean Development Mechanism (104)

According to EB 60, annex 26 the demonstration and assessment of prior consideration of the CDM does not apply to PoAs.

3.8.2. Identification of Alternatives (107)

Identification of alternatives is not required by “Guidelines on the demonstration of additionality of small-scale project activities” (ver. 09.0, EB69).

3.8.3.Investment Analysis (114)

In case the automatic additionality is not extended after the first 3 years, new CPAs would have to demonstrate additionality using the investment analysis.

Framework requirements for the IRR calculation, the benchmark selection, and sensitivity analysis which are provided in the PoA-DD section E.5.1 were assessed and found in accordance with “Tool for the demonstration and assessment of additionality” (ver. 06.1.0)” and “Guidelines on the assessment of investment analysis” (ver. 05.0, EB 62, Annex 5).

3.8.4.Barrier Analysis (118)

The PP has not used the barrier analysis to demonstrate additionality.

3.8.5.Common Practice Analysis (130)

Common practice analysis is not required by “Guidelines on the demonstration of additionality of small-scale project activities” (ver. 09.0, EB69).

3.9. Monitoring Plan (124)

The PoA Macedonian Microscale Grid-connected Hydroelectricity Programme

and CPA MAC0001-Jablanica use the approved monitoring methodology AMS-I.D. “Grid connected renewable electricity generation” ver.17 /20/.

Applicability of this methodology is justified in PoA-DD and CPA-DD as provided by the methodology applied. Referring to the discussions on the applicability of the methodology in section 3.8.1 above, the validation team considers that the selected monitoring methodology is applicable to the Project.

Data and Parameters Monitored

The CPA implementing entity will monitor the following data parameter:

EGy (Net electricity generation supplied to the grid by the hydro power plant).

The validation team considers that the description of the monitoring plan contains all necessary parameters, that they are described and that the means of monitoring described in the plan complies with the requirements of the methodology.

Implementation of the Monitoring Plan

The audit team has assessed the implementation of the monitoring plan by studying the CPA-DD since any CPA has not started yet. There is stated that the electricity generation bought and

supplied shall be recorded with a monthly frequency. Metering data will be cross-referenced with invoice data for electricity generation purchases and sales. Calibration periodicity is defined as 3 years. This was found in accordance with relevant local laws /19/.

The validation team considers that the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed project activity can be reported ex post and verified.

Sampling plan

According to the "Standard for Sampling and Surveys for CDM Project Activates and Programme of Activities" Version 02.0, a sampling plan is optional. However, PP has decided do not use sampling but verify all CPAs.

Bureau Veritas Certification hereby confirms that the monitoring plan complies with the requirements of the methodology including applicable tool(s), the monitoring arrangements described in the monitoring plan are feasible within the project design and the project participants are able to implement the described monitoring plan.

3.10. Environmental Impacts (133)

The PoA-DD provides that the environmental impact analysis is carried at the CPA level to allow for local conditions to be considered.

According to the requirements of the local law in Macedonia The EIA Report for the first/specific CPA MAC0001-Jablanica, have been prepared by company BAR E.C.E. on 02.06.2012 /12/ and positively approved by the Ministry of Environment and Spatial Planning with statement # 11-5947/3 , dated 11.09.2012 /13/, /14/.

In general the result of the environmental analysis and study described in the CPA-DD is as follows:

Air emissions - the air emissions from run-of-river hydropower plants are minimal and the surrounding environment provides for good natural ventilation;

Ground and Surface Water Impact - from the available project information, it cannot be concluded if there will be a technological process during the operation of the SHPP that will lead to waste water discharge;

Waste Material - minimum communal waste is expected to be generated, which should be well managed;

Soil Impact - the impact on the soil from run-of-the-river hydropower plants is minimal and will only be visible during the construction period;

Noise - the noise from the construction activities is not expected to be significant as the developer will use state of the art construction technology. The SHPP is located in uninhabited area and therefore the noise will not cause any disturbances to the local population. After the

plant is put into operation the noise levels will be monitored to ensure that they fit the legally allowed ones;

Biodiversity - biological minimum of the river between the water intake and water discharge from hydropower plant for the power plant is in accordance with world practices, which should be followed also in Macedonia. Water intake for the pipelines could impact the ecosystem in the vicinity of water intake. The project's location, the size of the entrance, and speed in water intake must be such to minimize the impact to land-and water animals. Biological minimum of the river between the water intake and water discharge from hydropower plant for the power plant is in accordance with world practices.

According to the report of environment impact assessment and the ratification of relative government departments, the project's environment impacts are not considered significant.

In order to verify the conclusions of the EIA the audit team studied the CPA-DD, the EIA provided by the PP /13/ and the Statement of the Ministry of Environment and Spatial Planning with statement # 11-5947/3 , dated 11.09.2012 /13/ which gives positive opinion about the project /14/.

Bureau Veritas Certification hereby confirms that the project participants have undertaken an analysis of environmental impacts and an environmental impact assessment in accordance with procedures as required by the host Party.

3.11. Local Stakeholder Consultation (130)

The PoA-DD provides for a local stakeholder consultation process and due steps to engage stakeholders and solicit comments for the proposed project activities (CPAs).

Local stakeholder consultations are to be conducted at the CPA level. In that way the local stakeholder consultations take into consideration the differences of circumstances and opinions of the communities in which each CPA is located.

For the first /specific CPA MAC0001-Jablanica comments by local stakeholders were compiled during a meeting held in the premises of Struga municipality on 27/02/ 2012. The local community was informed about the topic, date, and place of the meeting by invitations placed on local public information boards. Apart from the representatives of the investor, the meeting was attended by one representative of Struga municipality and ten representatives of the local population.

During the stakeholders meeting the questions raised by the attendees had been answered by the representatives of the PP.

No negative comments had been received regarding the project activities.

None of the stakeholders who attended the meeting had been against the implementation of the project activity.

In order to cross-check and verify the facts the audit team studied the CPA-DD and the Minutes of the meeting (protocol) with the representatives of Struga Municipality and local stakeholders dated 27/02/2012. All persons attending the meeting have signed the protocol. The questions

raised and the respective answers are fixed in the protocol properly. The protocol states that local stakeholders gladly approve the implementation of a “clean energy” project in the Municipality of Struga.

Bureau Veritas Certification hereby confirms that comments that are relevant for the proposed project activity have been invited from local stakeholders, the summary of the comments received as provided in the CPA-DD is complete, the project participants have taken due account of all comments received and have described this process in the CPA-DD.

4. COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PoA-DD and CPA-DD using methodology AMS-I.D. “Grid connected renewable electricity generation” ver.17 /20/ was webhosted on the UNFCCC for global stakeholders comments as per CDM requirements. The project was webhosted from 07/03/2012 to 05/04/2012.

No comments were received during this period.

5. VALIDATION OPINION

Bureau Veritas Certification has performed a validation of the PoA-DD " Macedonian Microscale Grid-connected Hydroelectricity Programme"

, which is located in the Republic of Macedonia and specific CPA-DD MAC0001-Jablanica.. The validation was performed on the basis of UNFCCC criteria for the CDM, and host country criteria, as well as the eligibility of PoA for CPA inclusion and the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion.

The CPA-DD correctly applies the approved consolidated baseline and monitoring methodology AMS-I.D. "Grid connected renewable electricity generation" ver.17 /20/ and uses the latest „Guidelines for demonstrating additionality of microscale project activities" (Version 04) /21/ for demonstration of the additionality of the PoA. In line with this tool, the CPA-DD provides analysis of the applicability criteria for micro-scale projects to determine that the project activity is additional.

By description of the PoA,and CPA they are likely to result in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the proposed PoA and MAC0001-Jablanica CPA are 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.

Provided that the PoA is implemented and maintained as designed, the PoA is likely to achieve the estimated amount of emission reductions.

Given that the CPA project is implemented and maintained as designed, the MAC0001-Jablanica CPA is likely to achieve the estimated annual emission reductions of 10,590 tCO_2e during the ten years of its fixed crediting period.

The review of the SSC-PoA-DD and SSC-CPA-DD project design documentations and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion,the PoA and CPA correctly apply the baseline and monitoring methodology AMS-I.D, ver. 17 /19/ and meets all relevant UNFCCC requirements for the CDM PoA and CPA, and the relevant host country criteria. Bureau Veritas Certification thus requests registration of the project as a CDM PoA .

Mr. Ashok Mammen	Mr. Tomas Paulaitis
Internal Technical Reviewer	Team Leader
12/12/2012	12/12/2012

6. REFERENCES

Category 1 Documents:

Documents provided by project participants that relate directly to the GHG components of the project.

/1/ CDM-SSC-PoA-DD "Macedonian Microscale Grid-connected Hydroelectricity Programme PDD ", ver.1.0, dated 22/12/2011

/2/ CDM-SSC-PoA-DD "Macedonian Microscale Grid-connected Hydroelectricity Programme PDD ", ver.1.7, dated 23/10/2012

/3/ CPA-PoA-DD "MAC0001 – Jablanica", ver.1.0, dated 29/02/2012

/4/ CPA-PoA-DD "MAC0001 – Jablanica", ver.1.4, dated 24/09/2012

/5/ CPA-PoA-DD "MAC0001 – Jablanica", ver.1.5, dated 23/10/2012

/6/ CPA-PoA-DD "MAC0001 – Jablanica", ver.1.9, dated 12/11/2012

/7/ ER calculation tables (filename: Macedonian SHPP PoA_ER_ver.1.0.xlsx)

/8/ ER calculation tables (filename: Macedonian SHPP PoA_ER_ver.1.2.xlsx)

/9/ SHPP "Jablanica" – Preliminary project and hydrological assessment and basic technical information, prepared by Consortium Granit & Feroinvest, 2011

/10/ Hydrological study of the Jablanica river, prepared by the Ministry of Agriculture, forests and water of Macedonia for the period 1961 – 2000.

/11/ Contract signed between MHEJablanica DOO and Camco Carbon International Limited , dated 12.09.2012

/12/ Equipment Purchase Agreement signed between MHE Jablanica DOO, Skopje and Global Hydro Energy GMBH, dated 06.09.2012

/13/ Environmental Impact Assessment Report for SHPP "Jablanica", ref. # 399, prepared by company BAR E.C.E. on 02.06.2012

/14/ Positive statement on the EIA Report for SHPP "Jablanica", issued by the Ministry of Environment and Spatial Planning , # 11-5947/3 , dated 11.09.2012

/15/ Public tender documentation for the concession of water for the generation of electric energy by 44 SHPP, published in State Gazette , # 166/22.12.2010

/16/ Law on Regional Development" No 63 approved by the Macedonian government on 22 May 2007

/17/ The "List of rural, border and mountain areas which lack in development" approved by the Macedonian government on 24 June 2009

/18/ Minutes of the meeting with the representatives of Struga Municipality and local stakeholders dated 27/02/2012

/19/ Law on Metrology (Zakon za metrologija Sl.Ves. br.55 16/07/2002), Law on Metrology (izmenuvanje i dopolnuvanje Sl.Ves. br.18 02/10/2009) and "Rulebook (Pravilnik za opredeluvanje kategoriite i vidovite merila Sl.Ves. br.102 22/08/2007).

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents used for cross-check.

/20/ AMS-I.D, version 17 Grid connected renewable electricity generation

/21/ "Guidelines for demonstrating additionality of microscale project activities" (Version 04)

/22/ Tool to calculate the emission factor for an electricity system (Version 02.2.1)

/23/ 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2

/24/ PDD of the registered Macedonian CDM project 'Skopje cogeneration project' (http://cdm.unfccc.int/Projects/DB/SGS-UKL1237296816.11/view)

/25/ Preparation of the GHG Inventory for the Second National Communication under UNFCCC, 2010. Final Version of the National Inventory Summary Report

/26/ Annual report of energy regulatory commission of Macedonia for 2010 (http://www.sobranie.mk/ext/materialdetails.aspx?Id=76e522b6-b6f6-4447-865e-446c1d560824)

/27/ Elem Annual report 2010 (http://www.elem.com.mk/images/stories/godisni%20izvestai/ Godisen%20izvestaj%20za%20proizvodstvo%202010g.pdf)

/28/ Elem Annual report 2009 (http://www.elem.com.mk/images/stories/godisni%20izvestai/ELEM-AR09-MKD-FINAL%20ZA%20WEB%201.pdf)

/29/ Elem Annual report 2008 (http://www.elem.com.mk/images/stories/godisni%20izvestai/ELEM-AR09-MKD-FINAL%20ZA%20WEB%201.pdf

/30/ Version 02.0 of the Clean Development Mechanism Validation and Verification Standard, issued by CDM Executive Board at its 65th meeting on 25/11/2010

/31/ "Procedure for Submission and Consideration of Microscale Renewable Energy Technologies for Automatic Additionality" (ver. 01.0)

/32/ Tool for the demonstration and assessment of additionality" (ver. 06.1.0)

/33/ Guidelines on the assessment of investment analysis" (ver. 05.0)

/34/ Macedonian DNA Proposal for automatic additionality of microscale projects (http://cdm.unfccc.int/DNA/submissions/index.html - PRT008) and positive decision by CDM EB, dated 01/11/2012

/35/ "Programme of Activities Design Document form" version 01.0

/36/ "Clarifications regarding the procedures for registration of a Programme of Activities as a single CDM Project Activity and issuance of Certified Emission Reductions for a Programme of Activities" Version 01

/37/ "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" Version 01

/38/ "Procedure for Registration of a Programme of Activities as a single CDM project activity and issuance of certificate emission reduction for a Programme of Activities", Version 04.1

/39/ "Clean Development Mechanism Validation and Verification Manual, Version 01.2 , 30/07/2010

/40/ CME Management manual

Persons interviewed:

Persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

	MHE Jablanica DOO	
/1/	Mr. Todor Angjushev	Manager
/2/	Mr. Vanco Acovski	Project Manager
	Camco Carbon International Limited	
/3/	Mariana Daykova	Project developer
/4/	Oleg Ryumin	Project developer
	Local Stakeholder	

7. CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Mr. Tomas Paulaitis	Bureau Veritas Certification, Lithuania	Team Leader, Climate Change Lead Verifier, Tomas Paulaitis is a lead auditor for environment and quality management systems and a lead GHG verifier (EU ETS, JI) with over 6 years of experience and was/is involved in the determination/verification of more than 50 JI and CDM projects.

Ms. Viktor Milkov	Bureau Veritas Certification, Bulgaria	Team Member, Technical specialist, Viktor Milkov specializes in developing JI/CDM/VER/GIS projects and assessment of CDM/JI/VER projects. He has over 10 years of experience in the sector of renewable energies and energy efficiency GHG projects.

Mr. Ashok Mammen	Bureau Veritas Certification, USA	Technical Reviewer, Climate Change Lead Verifier, Dr. Mammen is a lead auditor for environment, safety and quality management systems and a lead verifier and tutor for GHG projects. He has been involved in the validation and verification processes of more than 100 CDM/JI and other GHG projects.

APPENDIX A: CDM PROJECT VALIDATION PROTOCOL

VALIDATION PROTOCOL

Table 1 Validation requirements based on the Clean Development Mechanism Validation and Verification Manual (Version 01.2)

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
2. Approval			The Republic of Macedonia	The Nethelands		
a. Have all Parties involved approved the project activity?	VVM	44	Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD has not provided a written letter of approval yet. CL1: Please provide written letters of approvals issued by each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD.	Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD has not provided a written letter of approval yet.	CL1	O.K.
b. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a writTen letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participatn or directly from the DNA)	VVM	45	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
c. Does the letter of approval from DNA of each Party involved:	VVM	45	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
ii. confirm that participation is voluntary?	VVM	45.b	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
iii. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	VVM	45.c	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
iv. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
d. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
e. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
f. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
g. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
3. Participation			Camco Carbon Limited (The Republic of Macedonia)	Camco Carbon Limited (The Netherlands)		
a. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	The project participant Camco Carbon International Limited is involved in the project activity and it has been listed in a consistent manner in section A.3	The project participant Camco Carbon International Limited is involved in the project activity and it has been listed in a consistent manner in section A.3	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
			and Annex 1 of the PDD.	and Annex 1 of the PDD.		

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
b. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
c. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	Yes.	Yes.	OK	OK
d. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VVM	52	Yes.	Yes.	OK	OK
e. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the approval document for each of the project participants)	VVM	52	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
f. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	Will be verified when CL1 will be resolved.		CL1	O.K.
g. Has the approval of participation issued from the relevant DNA?	VVM	53	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
h. Is there doubt with respect to (g) above? I	VVM	53	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
i. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VVM	53	Will be verified when CL1 will be resolved.	Will be verified when CL1 will be resolved.	CL1	O.K.
4. Project desing document						
a. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	The PoA-DD used as a basis the latest VVM template CLEAN DEVELOPMENT MECHANISM SMALL-SCALE PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM (CDM-SSC-PoA-DD)		OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Version 01, http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/PoA_form02_v01.pdf		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	The PoA-DD has been found in accordance with GUIDELINES FOR COMPLETING THE PROGRAMME DESIGN DOCUMENT FORM FOR SMALL-SCALE CDM PROGRAMMES OF ACTIVITIES (Version 01.0), http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid11.pdf.	OK	OK
c. In CDM-PoA-DD are following provided:	EB 55	Ann 38		-	-
i. Identification of the coordinating/managing entity, host Party(ies) and PoA participants;	EB 55	Ann 38	Is identified that Camco Carbon International Limited will act as the coordinating/managing entity of this PoA (hereafter referred to as CME) and will be the focal point in any communication with the CDM Executive Board. See 2a also.	OK	OK
ii. Definition of the boundary for the PoA in terms of a geographical area (e.g., municipality, region within a country, country or several countries) within which all CPAs included in the PoA will be implemented, taking into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary are reflected in the determination of the baseline;	EB 55	Ann 38	The geographical boundaries of the PoA are the sovereign borders of the Republic of Macedonia. Consideration of all applicable national and/or sectoral policies and regulations within that boundary are reflected in the determination of the uniform baseline.	OK	OK
iii. Description of the policy/measure or stated goal that the PoA seeks to promote;	EB 55	Ann 38	Stated goal is to contribute both to the grid's decarbonisation and the decentralization of generation capacities through the promotion of renewable energy (PoA-DD section A.2)	OK	OK
iv. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity;	EB 55	Ann 38	The proposed PoA is a voluntary action undertaken by the private Camco Carbon International Limited.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
v. Demonstration that in the absence of the CDM either: (i) the proposed voluntary measure would not be implemented, or (ii) the mandatory policy/regulation would be systematically not enforced and that non-compliance with those requirements is widespread in the country/region, or (iii) that the PoA will lead to a greater level of enforcement of the existing mandatory policy /regulation. This shall constitute the demonstration of additionality of the PoA as a whole;	EB 55	Ann 38	"(ii) If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA" is chosen to demonstrate additionality. The project participants choose to demonstrate additionality at the CPA level and "Guidelines for demonstrating additionality of microscale project activities" are defined as a tool to demonstrate additionality. This approach is in accordance with "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" (version 01.0, EB 65) clause 8: "PoAs that consist of one or more microscale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of the ""Guidelines for demonstrating additionality of microscale project activities."	OK	OK
vi. Description of a typical CPA that will be included in the PoA covering the technology or measures to be used, justification of the choice of an approved baseline and monitoring methodology (or combination of approved methodologies)1, application of an approved baseline and monitoring methodology;	EB 55	Ann 38	Description is provided in the PDD section A.4.2: "A typical CPA included in this PoA will be: Newly build hydro power generation unit(s) using run-of-the-river equipment and Supplying electricity to the Macedonian national grid; or supplying electricity to an identified consumer via national/regional grid by means of contractual agreement; and Having installed capacity less than or equal to 5MW (i.e., microscale)."	OK	OK
vii. Definition of eligibility criteria for inclusion of a project activity as a CPA under the PoA, which	EB 55	Ann 38	Criteria are clearly described in the PDD section E.5.1 ..	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
shall include, as appropriate, criteria for demonstration of additionality of the CPA, and the type and/or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility;			The determination of additionality for a CPA under the PoA shall be performed in accordance with the "Guidelines for Demonstrating Additionality of Microscale Project Activities" (Version 04). As long as a new CPA can demonstrate that it meets the conditions for one of the presented approaches, the CPA shall be deemed additional. Approach A: According to the "Guidelines" project activities up to 5 megawatts that employ renewable energy as their primary technology are additional if any one of the below conditions are satisfied: …….. d)The project activity employs specific renewable energy technologies/measures recommended by the host country DNA and approved by the Board to be additional in the host country. The Macedonian DNA, part of the Ministry of Environment and Spatial Planning, submitted a recommendation on specific renewable energy technologies to be considered additional in Macedonia to the UNFCCC Secretariat on 04/09/2012. According to the submission the DNA recommends to consider any renewable energy project up to 5 MW using hydro, geothermal, on-shore wind, and renewable biomass power to produce electricity and to deliver it to the national grid. The Executive Board approved the		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			recommendation. Therefore, any grid-connected hydroelectricity producing CPA with installed capacity <=5 MW is deemed to be additional and is eligible for inclusion in this PoA in the period of validity of the automatic additionality. According to the "Procedure for Submission and Consideration of Microscale Renewable Energy Technologies for Automatic Additionality" (ver. 01.0), the automatic additionality for micro grid connected hydropower projects in Macedonia can be used as a additionality test for CPA inclusion for 3 years after its adoption by the EB. The key criteria for assessing the additionality of a CPA are listed in the PoA-DD as follows: Approach A: • The installed capacity of the potential CPA is/will be <=5 MW (i.e., does it fulfil PoA eligibility criteria # 1.1) • The technology used in the potential CPA falls into the list of approved technology types (i.e., does it fulfil PoA eligibility criteria #1.2) • The potential CPA is located on the territory of Republic of Macedonia (i.e., does it fulfil PoA eligibility criteria # 3.1).		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
viii. Starting date and length of the PoA not exceeding 28 years	EB 55	Ann 38	Length of the programme of activities is 28 years as stated in the PDD section B.2.	OK	OK
ix. Description of the operational and management arrangements established by the coordinating/managing entity for the implementation of the PoA, including a record keeping system for each CPA under the PoA, a system/procedure to avoid double accounting	EB 55	Ann 38	Comprehensive description in the PoA-DD section A.4.4.1 was found sufficient to define requirements for PoA operations and management	OK	OK
x. Description of a monitoring plan for a CPA, developed in accordance with the approved monitoring methodology, and identification of the monitoring provisions and data parameters a CPA has to apply/monitor;	EB 55	Ann 38	Monitoring will be carried out and verified independently on CPA level. For each CPA, all parameters included in section E.7.1 will be monitored by the CPA implementing entity according to the procedures set out in E.7.2 using calibrated meters. Decribtion of sections E.7.1 and E.7.2 is in accordance with methodology AMS-I. D, “Grid connected renewable electricity generation”, version 17, see section 7 below.	OK	OK
xi. If the coordinating/managing entity does not wish to have all CPAs verified, a description of the proposed statistically sound sampling method/procedure to be used by DOEs for verification of the amount of reductions of anthropogenic emissions by sources or removals by sinks of greenhouse gases achieved by CPAs under the PoA;	EB 55	Ann 38	CL2: Please clarify, whether coordinating/managing entity does not wish to have all CPA verifed (see STANDARD FOR SAMPLING AND SURVEYS FOR CDM PROJECT ACTIVITIES AND PROGRAMME OF ACTIVITIES (Version 02.0), EB 65)	CL2	O.K.
xii. Environmental analysis of the PoA as per requirements of the CDM modalities and procedures. If this analysis is not undertaken for the PoA but is to be done at the CPA level this	EB 55	Ann 38	The local impacts of each small hydro CPA will be justified with a separated environmental assessment. Is required to include this information in section C of the CPA-DD. The CPA should	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
shall be described and reflected in the CDM-POA-DD and the CDM-CPA-DD;			provide a state approved environmental impact assessment (EIA) report.		
xiii. If comments by local stakeholders were invited with regard to the total PoA, information on how comments by local stakeholders were invited, a summary of the comments received and how due account was taken of any comments received, as applicable. If such comments are to be sought at the CPA level this shall be described and reflected in the CDM-POA-DD and the CDM-CPA-DD	EB 55	Ann 38	The local stakeholder consultation will be done at the CPA level and included in section D.2 of the CPA-DD.	OK	OK
xiv. In case public funding is used a confirmation that official development assistance is not being diverted to the implementation of the PoA.	EB 55	Ann 38	It is stated in the Annex 1 that no official funds from any Annex 1 country are involved in this PoA. CL3: Please provide an official statement from the CPA that no official funds from any Annex 1 country are involved in the PoA.	CL3	O.K.
5. Project description					
a. 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?	VVM	58	Yes, the PoA-DD contains a clear description of the project activity.	OK	OK
b. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59		-	-
i. sufficiently covering all relevant elements?	VVM	59	Yes, the description covers all relevant elements.	OK	OK
ii. acurate?	VVM	59	Yes.	OK	OK
iii. providing the reader with a clear understanding of the nature of the proposed CDM project	VVM	59	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
activity?					
iv. Are there any changes/modifications compared to the webhosted PDD?	VVM	59	No changes /modifications compared to the CPA-DD were found during the on-site visit in the office of the CPA owner. This was confirmed by careful assessment of the Preliminary Technical Design document, provided by the CPA owner.	OK	OK
c. Is the proposed CDM project activity in existing facilities or or utilizing existing equipments?	VVM	60	No, the project activity is a green-field project and does not utilize existing equipment.	OK	OK
d. Is the CDM project activity one of the following types:	VVM	60		-	-
i. Large scale?	VVM	60	No.	OK	OK
ii. Non-bundled small scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60	No.	OK	OK
iii. Bundled small scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60	No, the project is part of a PoA activity	OK	OK
e. If yes to (c) and (d) above, was a physical site inspection conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?	VVM	60	N/A	OK	OK
f. If yes to (d.iii) above, was the number of physical site visits base on samping?	VVM	60	N/A	OK	OK
g. If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	N/A		
h. For other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	Site visit of the SHPP “Jablanica” was not conducted because construction is not started yet, review of available design documents and other documents as follows:	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			- Preliminary design of SHPP "Jablanica" with supporting components , prepared by Consortia Feroinvest, Granit AD; - Planned quantities of water and its use in SHHP "Jablanica" prepared by Consortia Feroinvest, Granit AD; - General technical information of SHPP "Jablanica" – Attachments 1 to 9, prepared by Consortia Feroinvest, Granit AD; - SHPP "Jablanica" – list of the land plots with necessary area, prepared by Consortia Feroinvest, Granit AD, has proved that information provided in the CLEAN DEVELOPMENT MECHANISM PROGRAM ACTIVITY DESIGN DOCUMENT FORM (CDM-CPA-DD) is correct. Site visit will be conducted at the time of verification to ensure that the project activity has been implemented and operated as per CDM-CPA-DD.		
i. For all other proposed CDM project activities not referred to in paragraphs 59 – 61, and for other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	62	Site visit is conducted.	OK	OK
j. If no, was it appropriately justified?	VVM	62	N/A		
k. Does the proposed CDM project activity involve	VVM	63	No. The CPA is a Greenfield project and there is	OK	OK

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	the alteration of an existing installation or process?			no existing installation at the project site.		
l.	If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	N/A		
6.	***Baseline and monitoring methodology***					
	a. General requirement					
a.	Do the the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	The methodology used by the project participants is AMS-I. D, "Grid connected renewable electricity generation", ver. 17	OK	OK
b.	Is the selected methodology applicable to the project activity?	VVM	66	• See (5.b.a) below.	-	-
c.	Had the PP correctly applied the selected methodology?	VVM	66	• See (5.b.d) below.	-	-
d.	Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	• See (5.c) below.	-	-
e.	Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	• See (5.d) below.	-	-
f.	Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	• See (5.e) below.	-	-
g.	Had the selected methodology been correctly applied with respect to additionality?	VVM	67	CME has selected EB68, Annex 12: "Guidelines for demonstrating additionality of microscale project activities" (Version 04) of 20/07/2012 option to demonstrate additionality: d) The project activity employs specific renewable energy technologies/measures recommended by the host	OK	OK

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			country DNA and approved by the Board to be additional in the host country.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Specific questions per methodology regarding application of the methodology with respect to additionality.			According to the "Law on Regional Development" # 63 dated 22 May 2007, the Macedonian government adopts special undeveloped zones and all SHPP included in the bundle are located in undeveloped zones. This was reviewed during the site audit and was validated. The list of underdeveloped zones attached to the Law was reviewed and confirmed.The location of the CPA , code No MAC0001 – "Jablanica" is situated in an underdeveloped zone.	OK	OK
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67		-	-
i. Measurements are undertaken using energy meters. Calibration should be undertaken as prescribed in the relevant paragraph of General Guidelines to SSC Methodologies. If applicable, measurement results shall be cross checked with records for sold/purchased electricity (e.g., invoices/receipts) The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. If applicable, cross check net electricity supplied to a grid as gross energy generation in the project activity power plant minus the auxiliary/station electricity consumption, technical losses and electricity import from the grid to the project power plant measured at the grid interface/connection used for billing purposes.	AMS -I.D	22	All AMS-I.D, ver. 17 requirements to measure quantity of the net electricity supplied to the grid in year y are met.	OK	OK

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b. Applicability of the selected methodology to the project activity					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity including that the used version is valid?	VVM	68	The baseline and monitoring methodology selected by the project participant is AMS-I.D, ver. 17; it is applicable to the project activity, this is justified in the PoA-DD section E.2 correctly, the applicable criteria are met: *The plants should use hydro power to generate electricity and supply it to the Macedonian power grid.* Since to be eligible for inclusion in the PoA all CPAs will be Greenfield run-of-the river hydro plants with an installed capacity of <=5MW (Eligibility criteria, this applicability condition will be met. The other applicability criteria are not relevant to the PoA. The baseline and monitoring methodology selected by the project participant is AMS-I.D, ver. 17; it is applicable to the project activity, this is justified in the PoA-DD section B.2 correctly, the applicable criteria are met: - This category comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to a national or a regional grid. - If the unit added has both renewable and	OK	OK

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			non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel1, the capacity of the entire unit shall not exceed the limit of 15 MW.		

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i. Specific questions per methodology regarding applicability.			Regarding the use of AMS-I.D in a project activity under a programme of activities some additional requirements are applied: -In the specific case of biomass project activities the applicability of the methodology is limited to either project activities that use biomass residues only or biomass from dedicated plantations complying with the applicability conditions of AM0042. -In the specific case of biomass project activities the determination of leakage shall be done following the general guidance for leakage in small-scale biomass project activities (attachment C of Appendix B of simplified modalities and procedures for small-scale clean development mechanism project activities; decision 4/CMP.1) or following the procedures included in the leakage section of AM0042. -In case the project activity involves the replacement of equipment, and the leakage from the use of the replaced equipment in another activity is neglected because the replaced equipment is scrapped, an independent monitoring of scrapping of replaced equipment needs to be implemented. The monitoring should include a check if the number of project activity equipment distributed by the project and the number of	OK	OK

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			scrapped equipment correspond with each other. For this purpose scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified. As the Programme of activities involves Greenfield run-of-the river hydro power plant these requirements are not applicable.		

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b. Has the DOE applied specific guidance provided by the CDM Executive Board in respect to the applicable approved methodology?	VVM	69	No specific guidance has been applied by the DOE in respect to the applicable approved methodology.	OK	OK
c. Is the methodology correctly quoted?	VVM	70	The applicability conditions of the methodology AMS-I.D, ver. 17 have been quoted correctly in Section E.2 of the PoA-DD.	OK	OK
d. Are the applicability conditions of the methodology met?	VVM	71	See a) above.	OK	OK
ii. Specific questions per methodology regarding applicability conditions.			The following eligibility criteria have to be fulfilled by the project activity in order to apply AMS-I.D, ver. 17: 1.The methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: a. Supplying electricity to a national or a regional grid; or b. Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling. 2.The methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity	OK	OK

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			addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s). 3.Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: • The project activity is implemented in an existing reservoir with no change in the volume of reservoir; • The project activity is implemented in an existing reservoir,* where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m2; • The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m2. 4. If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the		

* A reservoir is to be considered as an “existing reservoir” if it has been in operation for at least three years before the implementation of the project activity.

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW. 5. Combined heat and power (co-generation) systems are not eligible under this category. 6. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units. 7. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW. The Programme of activities involves run-of-river small (<=5MW capacity) hydro power plants. All requirements for eligibility under AMS-I.D, ver. 17 are met.		

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e. Is the project activity expected to result in emissions other than those allowed by the methodology?	VVM	71	Emissions other than those allowed by the methodology are not expected in the project activity.	OK	OK
f. Is the choice of the methodology justified?	VVM	71	The choice of the methodology has been appropriately justified by the project participant.	OK	OK
g. Have the project participants shown that the project activity meets each of the applicability conditions or the approved methodology?	VVM	71	Yes, the CME have demonstrated in Section E.2 of the PoA-DD that the project activity meets the applicability conditions of AMS-I.D, ver.17.	OK	OK
h. Have the project participants shown that the project activity meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	71	The methodology AMS-1.D, ver. 17 refers to the Tool to calculate the emission factor for an electricity system. The project participant has followed the guidance provided in the tool to calculate the baseline grid electricity emission factor.	OK	OK
iii. Specific questions per methodology regarding applicability conditions of any tool or other methodology component referred to the methodology.			The methodology applied AMS-I.D, ver.17 refers to the “Tool to calculate the Emission Factor for an electricity system” in order to calculate the emission factor of the national grid. The CME has followed strictly the requirements of the tool. That was confirmed by the DOE by thorough check of the calculation tables presented to the team and the sources of all parameters used to calculate the emission factor. In order to prove additionality on a CPA level the CME applies also the EB68, Annex 12: “Guidelines for demonstrating additionality of microscale project activities” (Version 04) of 20/07/2012. The guidelines are applicable for the project activity because all hydro power plants included in the PoA	OK	OK

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			will be with less than 5 MW capacity which is the requirement of the “Guidelines”.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the PDD?	VVM	71	The rated capacity of the CPA and the technical design were crosschecked during the site visit.	OK	OK
j. If yes, was the PDD cross checked agains the other sources to confirm that the project activity meets the applicability conditions of the methodology? (provide the reference to these choices)	VVM	71	See h) above.	OK	OK
k. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	72	The selected methodology AMS-I.D, ver. 17 is fully applicable to the proposed project activity.	OK	OK
l. If no, clarification of the methodoloy was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	N/A	OK	OK
m. If answer to (5.b.d) above is “no”, revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	73	N/A	OK	OK
n. If yes to (5.b.l) and (5.b.m) above, a request for registration was submited before the CDM Executive Board has approved the proposed deviation or revision?	VVM	74	N/A	OK	OK
c. Project boundary					
a. Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating	VVM	78	The CDM-SSC-CPA-DD correctly describes the project boundary in Section B.4. However a schematic of the project boundary is not presented. CL4:The CME is requested to present a schematic	CL4	OK

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project and baseline emissions for the proposed CDM project activity?			indicating the project boundary and its components.		
i. Specific questions per methodology regarding application of the methodology with respect to project boundary.			As per AMS-I.D, ver.17 the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to. The CME describes correctly the project boundary in Section B.4 of the CDM-SSC-CPA-DD. However see a) above	CL4	OK
b. Is the delineation in the PDD of the project boundary correct?	VVM	79	The delineation is correct and includes identification of all locations (intake and power house) and equipment (turbine type) used.	OK	OK
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	79	Delineation meets the requirements, see b) above	OK	OK
d. Have changes been made to the project boundary in comparison to the webhosted PDD. If yes please comment on the reason for the changes.	VVM	79	No changes have been made to the project boundary in comparison to the PoA-DD provided to the audit team for validation.	OK	OK
e. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	79	No GHGs and sources are specified by Methodology AMS-I.D, ver. 17. CME has chosen only the source “CO2 emission from electricity generation in fossil fuel fired power plants that is displaced due to the project activity “.	OK	OK
f. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	79	No GHGs and sources are specified by Methodology AMS-I.D, ver. 17. CME has chosen only the source “CO2 emission from electricity generation in fossil fuel fired power plants that is	OK	OK

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			displaced due to the project activity “.		

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g. If yes, have the project participants justified that choice?	VVM	79	No GHGs and sources are specified by Methodology AMS-I.D, ver. 17. CME has chosen only the source "CO2 emission from electricity generation in fossil fuel fired power plants that is displaced due to the project activity ".	OK	OK
h. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	79	No GHGs and sources are specified by Methodology AMS-I.D, ver. 17. CME has chosen only the source "CO2 emission from electricity generation in fossil fuel fired power plants that is displaced due to the project activity ".	OK	OK
d. Baseline identification					
b. Does the PDD identify the baseline 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?	VVM	81	Methodology AMS- I.D, ver.17 prescribes the baseline for grid connected renewable energy generation projects as "the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources." The project participant has selected the baseline as per the guidance provided in the methodology.	OK	OK
c. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	82	See b) above, there is no choice for alternative scenario.	OK	OK
i. Specific questions per methodology regarding application of any procedure contained in the methodology to identify the most reasonable baseline scenario.			No identification of the baseline is necessary. It is prescribed by the methodology	OK	OK
d. Does the selected methodology require use of tools (such as the "Tool for the demonstration	VVM	82	No, see b) above, there is no choice for alternative scenario.	OK	OK

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and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality") to establish the baseline scenario?					
e. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	82	N/A	OK	OK
i. Specific questions per methodology regarding application of tools to establish the most reasonable baseline scenario.			N/A	OK	OK
f. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	No, see b) above, there is no choice for alternative scenario.	OK	OK
g. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	83	N/A	OK	OK
h. Has any reasonable alternative scenario been excluded?	VVM	83	N/A	OK	OK
i. Is the baseline scenario identified reasonably supported by:	VVM	84	Not applicable, paragraphs 10 and 11 of the methodology AMS-I.D, ver. 17 prescribe the baseline scenario of the project. Hence, alternative scenarios are not required to be considered.	OK	OK
i. Assumptions?	VVM	84			
ii. Calculations?	VVM	84			
iii. Rationales?	VVM	84			
j. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VVM	84	The CME has correctly referred to the relevant sections of the methodology AMS-I.D, ver. 17 in the section E.4 of the PoA-DD for baseline identification.	OK	OK

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			All the documents and sources referred to in the PoA-DD are correctly quoted and interpreted.		

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k. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (idendify the sources)	VVM	84	Credible sources are used only (2006 IPCC Guidelines for default values, official national data from GHG National Inventory Summary Report), hence, crosschecking is not used, there are no alternative data sources.	OK	OK
l. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85	AMS-I.D, ver. 17 prescribes the baseline scenario and the project participant has identified the baseline in accordance with the methodology AMS-I.D. The project participant has taken applicable CDM requirements into account with respect to the baseline scenario identification.	OK	OK
m. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	85	There are no applicable relevant policies and circumstances that should be considered. This was confirmed during the site visit.	OK	OK
n. 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?	VVM	86	AMS-I.D, ver. 17 prescribes the baseline for the new grid connected renewable power plants. The baseline description in the PoA-DD is as per AMS-ID, ver. 17.	OK	OK
e. Algorithms and/or formulae used to determine emission reductions					
a. 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?	VVM	89	The project is a newly installed renewable energy project activity, therefore, the GHG emission from the project activity is considered as zero (Pey = 0). As the technology used in this project is neither transferred to nor transferred from another activity the leakage is considered to be zero (Ly = 0).	OK	OK

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			Hence, emission reductions is equal to baseline emissions.		

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b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	90	The equation to calculate emission reduction is provided and applied correctly: *Ery = Bey – Pey– Ly*	OK	OK
i. Specific questions per methodology regarding steps taken and equations and parameters applied to calculate project emissions, baseline emissions, leakage and emission reductions.			According to AMS-I.D, ver.17 the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources. The baseline emissions are the product of the electrical energy baseline *EGBL*, *y* (expressed in MWh of electricity produced by the renewable generating unit) multiplied by the grid emission factor: $BE_y = EG_{BL,y} * EF_{CO2,\ grid,\ y}$ Where: BE_y – Baseline Emissions in year *y* (t CO_2) $EG_{BL,y}$ - Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year *y* (MWh) $EF_{CO2,\ grid,\ y}$ – CO2 emission factor of the grid in year y (t CO_2/MWh) The CME has used the following option to calculate the grid emission factor: A combined margin (CM), consisting of the combination of operating margin (OM) and build	OK	OK

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			margin (BM) according to the procedures prescribed in the “Tool to calculate the Emission Factor for an electricity system” (Version 02.2.1).		

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c. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	The methodology does not provide possibility for selection between different options.	OK	OK
d. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	90	N/A	-	-
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	90	See (5.e.b) above	-	-
f. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	91	Only one parameter: the net electricity supplied to the grid will be monitored throughout the crediting period.	OK	OK
g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	91		-	-
i. Appropriate and correct?	VVM	91	Only one parameter: the combined margin emission factor *EFgrid,CM,y* is fixed ex-ante.	OK	OK
ii. Applicable to the proposed CDM project activity?	VVM	91	The parameter is applicable to the proposed activity; there are no alternatives in the methodology AMS-I.D, ver. 17 for this parameter.	OK	OK
iii. Resulting in a conservative estimate of the emission reductions?	VVM	91	The combined margin emission factor *EFgrid,CM,y* is calculated according to the methodology AMS-I.D, ver. 17 and the Tool to calculate the emission factor for an electricity system. The CME has followed the requirement for conservativeness and has used fot the calculations the 2006 IPCC default values for NCV and EF of the fossil fuels, for which no local data was available, in the lower limit of the	OK	OK

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			95% confidential interval.		

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h. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	91	The net electricity supplied to the grid will be monitored throughout the crediting period.	OK	OK
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	91	The estimates provided in the PoA-DD are reasonable as they are based on the capacity of the project which was reviewed and validated during the site visit.	OK	OK
7. Additionality of a project activity					
a. Does the PDD describe how a proposed CDM projet activity is additional?	VVM	94	CME have selected EB68, Annex 12: "Guidelines for demonstrating additionality of microscale project activities" (Version 04) of 20/07/2012 option to demonstrate additionality: d) The project activity employs specific renewable energy technologies/measures recommended by the host country.". The Macedonian DNA, part of the Ministry of Environment and Spatial Planning, submitted a recommendation on specific renewable energy technologies to be considered additional in Macedonia to the UNFCCC Secretariat on 04/09/2012. According to the submission the DNA recommends to consider any renewable energy project up to 5 MW using hydro, geothermal, on-shore wind, and renewable biomass power to produce electricity and to deliver it to the national grid. The Executive Board approved the recommendation. Therefore, any grid-connected hydroelectricity producing CPA with installed	OK	OK

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			capacity <=5 MW is deemed to be additional and is eligible for inclusion in this PoA in the period of validity of the automatic additionality.		

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b. Were the following steps of the tool to assess additionality used:	EB 39	Ann 10	N/A	OK	OK
i. Identification of alternatives to the project activity?	EB 39	Ann 10	N/A	OK	OK
ii. Investment analysis to determine that the proposed project activity is either: 1) not the most economically or financially attractive, or 2) not economically or financially feasible?	EB 39	Ann 10	N/A	OK	OK
iii. Barriers analysis?	EB 39	Ann 10	N/A	OK	OK
iv. Common practice analysis?	EB 39	Ann 10	N/A	OK	OK
c. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10	N/A	OK	OK
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	N/A	OK	OK
ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	N/A	OK	OK
d. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10	N/A	OK	OK
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	N/A	OK	OK
ii. (b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios	EB 39	Ann 10	N/A	OK	OK

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identified in the underlying methodology;					
iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	N/A	OK	OK
e. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 39	Ann 10	N/A	OK	OK
f. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 39	Ann 10	N/A	OK	OK
g. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 39	Ann 10	N/A	OK	OK
h. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	EB 39	Ann 10	N/A	OK	OK

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i. Has the outcome of Step 1b: Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations done correctly? Please state the outcome.	EB 39	Ann 10	N/A	OK	OK
j. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	N/A	OK	OK
k. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10	N/A	OK	OK
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	N/A	OK	OK
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	N/A	OK	OK
iii. Sub-step 2b: Option II. Apply investment comparison analysis;	EB 39	Ann 10	N/A	OK	OK
iv. Sub-step 2b: Option III. Apply benchmark analysis;	EB 39	Ann 10	N/A	OK	OK
v. Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III);	EB 39	Ann 10	N/A	OK	OK
vi. Sub-step 2d: Sensitivity analysis (only applicable to Options II and III).	EB 39	Ann 10	N/A	OK	OK
l. In sub-step 2a has the determination of appropraite method of analysis done as per the guidance as below?	EB 39	Ann 10	N/A	OK	OK
i. Simple cost analysis if the CDM project activity	EB	Ann	N/A	OK	OK

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and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	39	10			
ii. Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	N/A	OK	OK
m. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 39	Ann 10	N/A	OK	OK
n. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 39	Ann 10	N/A	OK	OK
o. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 39	Ann 10	N/A	OK	OK
i. Identify the financial/economic indicator, such as IRR, most suitable for the project type and decision context.	EB 39	Ann 10	N/A	OK	OK
ii. When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective	EB 39	Ann 10	N/A	OK	OK

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profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.					
iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks	EB 39	Ann 10	N/A	OK	OK

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are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.					
p. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 39	Ann 10	N/A	OK	OK
i. Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 39	Ann 10	N/A	OK	OK
ii. Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in separate annexes to the CDM-PDD.	EB 39	Ann 10	N/A	OK	OK
iii. Justify and/or cite assumptions.	EB 39	Ann 10	N/A	OK	OK
iv. In calculating the financial/economic indicator, the project's risks can be included through the	EB 39	Ann 10	N/A	OK	OK

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cash flow pattern, subject to project-specific expectations and assumptions.					
v. Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	N/A	OK	OK
vi. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity.Please specify details for above.	EB 39	Ann 10	N/A	OK	OK
q. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 39	Ann 10	N/A	OK	OK
r. Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	N/A	OK	OK
s. In step 3: Barrier analysis have all the sub-steps as below been followed?	EB 39	Ann 10	N/A	OK	OK
i. Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity;	EB 39	Ann 10	N/A	OK	OK
ii. Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	EB 39	Ann 10	N/A	OK	OK
t. Has the below guideline followed for Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project?	EB 39	Ann 10	N/A	OK	OK

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i. (a) Investment barriers: For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.	EB 39	Ann 10	N/A	OK	OK
ii. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for other technologies that provide services or outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information, The particular technology used in the proposed project activity	EB 39	Ann 10	N/A	OK	OK

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is not available in the relevant region.					
iii. (c) Barriers due to prevailing practice: The project activity is the “first of its kind”.	EB 39	Ann 10	N/A	OK	OK
iv. (d) Other barriers, preferably specified in the underlying methodology as examples.	EB 39	Ann 10	N/A	OK	OK
u. Has the outcome from Step 3a clearly mentioned in PDD?	EB 39	Ann 10	N/A	OK	OK
v. Has the below guideline followed for Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)?	EB 39	Ann 10	N/A	OK	OK
i. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the implementation of at least one of the alternatives. Any alternative that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration.	EB 39	Ann 10	N/A	OK	OK
ii. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers and whether alternatives are prevented by these barriers.	EB 39	Ann 10	N/A	OK	OK
iii. The type of evidence to be provided should	EB	Ann	N/A	OK	OK

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include at least one of the following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, training centres), industry associations and others. Please specify.	39	10			
w. Has the outcome from Step 3 clearly mentioned in PDD?	EB 39	Ann 10	N/A	OK	OK
x. In step 4: Common practise analysis have all the sub-steps as below followed?	EB 39	Ann 10	N/A	OK	OK
i. Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 39	Ann 10	N/A	OK	OK
ii. Sub-step 4b: Discuss any similar Options that are occurring.	EB 39	Ann 10	N/A	OK	OK
y. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this	EB 39	Ann 10	N/A	OK	OK

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analysis. Provide documented evidence and, where relevant, quantitative information. On the basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.					
z. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include justification about non-accessibility of data/information.	EB 39	Ann 10	N/A	OK	OK
aa. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	N/A	OK	OK
bb. Has it been proved that the porject is additional?	EB 39	Ann 10	N/A	OK	OK

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cc. Has the PP demonstrated additionality by explaining Investment barrier, Access-to-finance barrier, Technological barrier, Barrier due to prevailing practice or other barriers?	EB 35	Ann 34	N/A	OK	OK
dd. If Investment barrier has been explained, is it demonstraed that financilly more viable alternative to the project activity would have led to higher emissions? Please explain.	EB 35	Ann 34	N/A	OK	OK
ee. If Access-to-finance has been explained, is it demonstraed that the project activity could not access appropriate capital without consideration of the CDM revenues? Please explain.	EB 35	Ann 34	N/A	OK	OK
ff. If Technological barrier has been explained, is it demonstraed that a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertinity or low market share of the new technology adopted for the project activity and so would have led to higher emissions? Please explain.	EB 35	Ann 34	N/A	OK	OK
gg. If prevailing practise barrier has been explained, is it demonstrated that the prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions? Please explain.	EB 35	Ann 34	N/A	OK	OK
hh. If other barrier has been explained, is it demonstrated that Other barriers such as institutional barriers or limited information, managerial resources, organizational capacity, or	EB 35	Ann 34	N/A	OK	OK

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capacity to absorb new technologies would prevent the project activity any way?					
ii. Have the project participants identifed the most relevant barrier?	EB 35	Ann 34	N/A	OK	OK
jj. Have the project participants provided transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc. To demonstrate the most relevant barrier? Please explain.	EB 35	Ann 34	N/A	OK	OK

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a. Prior consideration of the clean development mechanism					
a. Is the project ativity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	98	• Not applicable for PoA	OK	OK
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98	• Not applicable for PoA	OK	OK
c. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins."?	VVM	99	• Not applicable for PoA	OK	OK
d. Does the project activity require construction, retrofit or other modifications?	VVM	99	• Not applicable for PoA	OK	OK
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	• Not applicable for PoA	OK	OK
f. Is it a new project activity (a project activity with a start date on or after 02 August 2008) or an existing project activity (a project activity with a start date before 02 August 2008)?	VVM	100	• Not applicable for PoA	OK	OK
g. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the CDM Executive Board before the project activity start date, had the PP informed the Host Party DNA	VVM	101	• Not applicable for PoA	OK	OK

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and/or the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status? (Provide reference to such confirmation from host Party DNA and/or UNFCCC secretariat).					
h. For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	102	• Not applicable for PoA	OK	OK
i. evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project, including, inter alia:	VVM	102	• Not applicable for PoA	OK	OK
a. minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?	VVM	101	• Not applicable for PoA	OK	OK
ii. reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation, including, inter alia:	VVM	102	• Not applicable for PoA	OK	OK
a. contract with consultants for CDM/PDD/methodology services?	VVM	102	• Not applicable for PoA	OK	OK
b. Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs	VVM	102	• Not applicable for PoA	OK	OK

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(including correspondence with multilateral financial institutions or carbon funds)?					
c. evidence of agreements or negotiations with a DOE for validation services?	VVM	102	• Not applicable for PoA	OK	OK
d. submission of a new methodology to the CDM Executive Board?	VVM	102	• Not applicable for PoA	OK	OK
e. publication in newspaper?	VVM	102	• Not applicable for PoA	OK	OK
f. interviews with DNA?	VVM	102	• Not applicable for PoA	OK	OK
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	102	• Not applicable for PoA	OK	OK
h. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VVM	102	• Not applicable for PoA	OK	OK
b. Identification of alternatives					
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	Yes, AMS-I.D, ver. 17 prescribes the baseline for the new grid connected renewable power plants.	OK	OK
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	N/A		
c. Does the list of alternatives given in the PDD esure that:	VVM	106		-	-
i. the list of alternatives includes as one of the options that the project activity is	VVM	106	N/A	OK	OK

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undertaken without being registered as a proposed CDM project activity?					
ii. the list contains all plausible 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 proposed CDM project activity?	VVM	106	N/A	OK	OK
iii. the alternatives comply with all applicable and enforced legislation?	VVM	106	N/A	OK	OK
c. Investment analysis					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	108	N/A	OK	OK
b. If yes, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	108		-	-
i. the most economically or financially attractive alternative?	VVM	108	N/A	OK	OK
ii. economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	108	N/A	OK	OK
c. Was this shown by one of the following approaches?	VVM	109		-	-
i. The proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CDM project activity and the alternatives identified and demonstrate that there is at	VVM	109	N/A	OK	OK

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least one alternative which is less costly than the proposed CDM project activity.					
ii. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	N/A	OK	OK
iii. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	109	N/A	OK	OK
d. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 51	Ann 58	N/A	OK	OK
e. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or – if a shorter period is chosen – include the fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	N/A	OK	OK
f. Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 51	Ann 58	N/A	OK	OK
g. Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 51	Ann 58	N/A	OK	OK
h. Does the cash flow in the final year include a fair value of the project activity assets at the end of	EB 51	Ann 58	N/A	OK	OK

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the assessment period?					
i. Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 51	Ann 58	N/A	OK	OK
j. Does the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB 51	Ann 58	N/A	OK	OK
k. Was depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, added back to net profits for the purpose of calculating the financial indicator (e.g. IRR, NPV)?	EB 51	Ann 58	N/A	OK	OK
l. Has taxation been included as an expense in the IRR/NPV calculation in cases where the benchmark or other comparator is intended for post-tax comparisons?	EB 51	Ann 58	N/A	OK	OK
m. Are the input values used in all investment analysis valid and applicable at the time of the investment decision taken by the project participant?	EB 51	Ann 58	N/A	OK	OK
n. Is the timing of the investment decision consistent and appropriate with the input values?	EB 51	Ann 58	N/A	OK	OK
o. Are all the listed input values been consistently applied in all calculations?	EB 51	Ann 58	N/A	OK	OK
p. Does the investment analysis reflect the economic decision making context at point of the decision to recomence the project in the case of	EB 51	Ann 58	N/A	OK	OK

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project activities for which implementation ceases after the commencement and where implementation is recommenced due to consideration of the CDM?					
q. Have project participants supplied the spreadsheet versions of all investment analysis?	EB 51	Ann 58	N/A	OK	OK
r. Are all formulas used in this analysis readable and all relevant cells be viewable and unprotected?	EB 51	Ann 58	N/A	OK	OK
s. In cases where the project participant does not wish to make such a spreadsheet available to the public has the PP provided an exact read-only or PDF copy for general publication?	EB 51	Ann 58	N/A	OK	OK
t. In case the PP wishes to black-out certain elements of the publicly available version, is it justifiable?	EB 51	Ann 58	N/A	OK	OK
u. Was the cost of financing expenditures (i.e. loan repayments and interest) included in the calculation of project IRR?	EB 51	Ann 58	N/A	OK	OK
v. In the calculation of equity IRR, has only the portion of investment costs which is financed by equity been considered as the net cash outflow?	EB 51	Ann 58	N/A	OK	OK
w. Has the portion of the investment costs which is financed by debt been considered a cash outflow in the calcualtion of equity IRR? (this is not allowed)	EB 51	Ann 58	N/A	OK	OK
x. Was a pre-tax benchmark be applied?	EB 51	Ann 58	N/A	OK	OK
y. In cases where a post-tax benchmark is applied,	EB	Ann	N/A	OK	OK

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is actual interest payable taken into account in the calculation of income tax?	51	58			
z. In such situations, was interest calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years?	EB 51	Ann 58	N/A	OK	OK
aa. In cases where a benchmark approach is used is the applied benchmark appropriate to the type of IRR calculated?	EB 51	Ann 58	N/A	OK	OK
bb. Has local commercial lending rates or weighted average costs of capital (WACC) selected as appropriate benchmarks for a project IRR?	EB 51	Ann 58	N/A	OK	OK
cc. Has required/expected returns on equity selected as appropriate benchmark for an equity IRR?	EB 51	Ann 58	N/A	OK	OK
dd. In case benchmarks supplied by relevant national authorities selected is it applicable to the project activity and the type of IRR calculation presented?	EB 51	Ann 58	N/A	OK	OK
ee. In the cases of projects which could be developed by an entity other than the project participant is the benchmark applied based on publicly available data sources which can be clearly validated?	EB 51	Ann 58	N/A	OK	OK
ff. Have internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted	EB 51	Ann 58	N/A	OK	OK

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average cost of capital – WACC) been applied in cases where there is only one possible project developer?					
gg. In such cases, have these values been used for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	EB 51	Ann 58	N/A	OK	OK
hh. Has a minimum clear evidence of the resolution by the company's Board and/or shareholders been provided to the effect as above?	EB 51	Ann 58	N/A	OK	OK
ii. Has a thorough assessment of the financial statements of the project developer – including the proposed WACC – to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects been conduted?	EB 51	Ann 58	N/A	OK	OK
jj. Does the risk premiums applied in the determination of required returns on equity reflect the risk profile of the project activity being verified, established according to national/international accounting principles? (It is not considered reasonable to apply the rate general stock market returns as a risk premium for project activities that face a different risk profile than an investment in such indices.)	EB 51	Ann 58	N/A	OK	OK
kk. Has an investment comparison analysis and not a benchmark analysis used when the proposed baseline scenario leaves the project participant	EB 51	Ann 58	N/A	OK	OK

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no other choice than to make an investment to supply the same (or substitute) products or services?					
ll. Have variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the PDD and be reproducible in the associated spreadsheets?	EB 51	Ann 58	N/A	OK	OK
mm. Have a corrective action been raised for a variable to be included in the sensitivity analysis which constitute less than 20% and have a material impact on the analysis ?	EB 51	Ann 58	N/A	OK	OK
nn. Is the range of variations selected is reasonable in the project context?	EB 51	Ann 58	N/A	OK	OK
oo. Dos the variations in the sensitivity analysis at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances?	EB 51	Ann 58	N/A	OK	OK
pp. In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative, is an assessment done of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration correlations between the variables as well as the specific socio-economic and policy	EB 51	Ann 58	N/A	OK	OK

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context of the project activity?					
qq. Was the plant load factor defined ex-ante in the CDM-PDD according to one of the following options:	EB 51	Ann 58	N/A	OK	OK
i. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval?	EB 51	Ann 58	N/A	OK	OK
ii. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)?	EB 51	Ann 58	N/A	OK	OK
rr. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	N/A	OK	OK
ss. Were the parameters cross-checked agains third-party or publicly available sources, such as invoices or price indices?	VVM	111	N/A	OK	OK
tt. Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants reviewed?	VVM	111	N/A	OK	OK
uu. Was the correctnes of computations carried out and documented by the project participants verified?	VVM	111	N/A	OK	OK
vv. Was the sensitivity analysis by the project	VVM	111	N/A	OK	OK

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participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions verified?					
ww. Is the type of benchmark applied is suitable for the type of financial indicator presented?	VVM	112	N/A	OK	OK
xx. Do any risk premiums applied determining the benchmark reflect the risks associated with the project type or activity?	VVM	112	N/A	OK	OK
yy. To determine this, was it verified whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by:	VVM	112	N/A	OK	OK
i. assessing previous investment decisions by the project participants involved?	VVM	112	N/A	OK	OK
ii. determining whether the same benchmark has been applied?	VVM	112	N/A	OK	OK
iii. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	112	N/A	OK	OK
zz. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activities?	VVM	113	N/A	OK	OK
xx. If yes:	VVM	113	N/A	OK	OK
i. has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the	VVM	113	N/A	OK	OK

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investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?					
ii. Are the values used in the PDD and associated annexes fully consistent with the FSR?	VVM	113	N/A	OK	OK
iii. If not, was the appropriateness of the values validated?	VVM	113	N/A	OK	OK
iv. On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	113	N/A	OK	OK
d. Barrier analysis					
a. Has barrier analysis been used to demonstrated the additionality of the proposed CDM project activity?	VVM	115	N/A	OK	OK
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VVM	115		OK	OK
i. prevent the implementation of this type of proposed CMD project activity?	VVM	115	N/A	OK	OK
ii. do not prevent the implementation of at least one of the alternatives?	VVM	115	N/A	OK	OK
c. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for	VVM	116	N/A	OK	OK

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example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be verified by investment analysis. [See (6.c) above]}					
d. Were the barriers determined as real by:	VVM	117		-	-
i. asssing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	117	N/A	OK	OK
ii. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?	VVM	117	N/A	OK	OK
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	117	N/A	OK	OK
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the	VVM	117	N/A	OK	OK

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proposed CDM project activity and would not equally prevent implementation of *at least one of* the possible alternatives, in particular the identified baseline scenario?					
e. Common practice analysis					
a. Is this a proposed large-scale, or first-of-its kind small-scale project activity?	VVM	119	N/A	OK	OK
b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	119	N/A	OK	OK
c. Was it verified whether the geograpphical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologis the relevatn region for assessment will be local and for others it may be transnational/global.	VVM	120	N/A	OK	OK
d. Was a region other than the entire host country chosen?	VVM	120	N/A	OK	OK
e. If yes, was the explanation why this region is more appropriate verified?	VVM	120	N/A	OK	OK
f. Using official sources and local and industry expertise, was it determined to what extent similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region?	VVM	120	N/A	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	120	N/A	OK	OK
h. If yes, was it verified whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	N/A	OK	OK
8. Monotoring plan					
a. Does the PDD include a monitoring plan?	VVM	122	The monitoring plan for the project activity has been included in the CPA-DD.	OK	OK
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122	The monitoring plan is based on the approved small-scale methodology AMS-I.D, ver. 17.	OK	OK
c. Were the list of parameters required by the the selected methodology identified?	VVM	123	There is only one parameter monitored – the net amount of electricity supplied to the grid. The description of the measurement method for this parametre is clear: invoices from EVN Macedonia (the Distribution Company) of electricity sale and purchase to the grid will be used.	OK	OK
d. Does the monitoring plan contains all necessary parameters?	VVM	123	See above.	OK	OK
e. Are the parameters clearly described?	VVM	123	Yes, see above.	OK	OK
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	123	The monitoring described in the plan is in accordance with the requirements of the methodology for quantity of net electricity supplied to the grid in year y.	OK	OK
g. Specific questions per methodology regarding parameters.	VVM	123	According to AMS-I.D, ver.17 only one parameter of the project activity shall be monitored during the crediting period – Quantity of net electricity supplied to the grid in year y ($EG_{grid,}$ MWh).	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			The PP has described correctly in the CPA-DD the parameter to be monitored.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
h. Are the monitoring arrangements described in the monitoring plan feasibl within the project design?	VVM	123	Calibrated electric meters will be installed by the grid operator and there is no doubt concerning feasibility of the monitoring arrangement.	OK	OK
i. Does the monitoring plan provide details regarding calibration of monitoring equipments/ instruments or does it include zero check as a substitute for calibration? (zero check can not be considered as a substitute for calibration)	EB 24	37	The calibration of the meters is full responsibility of the national grid operator and the power meters will be calibrated according to the national standards and legislation, but at a period no longer than 3 years.	OK	OK
j. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	123		-	-
i. data management procedures?	VVM	123	The measurement method of the net electricity supplied to the grid is standardized and will be applied in accordance with the grid rules. The commercial interest of the second party (national grid) ensures reliability and completeness of the monitoring data; no additional quality assurance and quality control procedures are needed.	OK	OK
ii. quality assurance procedures?	VVM	123			
iii. quality control procedures?	VVM	123			
9. Sustainable development					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	The proposed project will contribute to the sustainable development of the local community and Macedonian Republic as follows: 1) By supplying reliable and zero emission electricity to the Macedonian Power Grid; 2) By displacing electricity that would	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			otherwise be generated by fossil fuel fired power plants (mainly coal fired) thus avoiding the environmental pollution and pollutants such as Sox, Nox and dust; 3) To alleviate power shortage and stimulate economy development in the local areas which are officially approved by the Macedonian government as undeveloped zones; 4) To create job opportunities over the construction and operation period to the local people.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable development of the host Party?	VVM	126	Will be verified later.	CL1	
10. Local stakeholder consultation					
a. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	The protocol of the meeting with the stakeholders, dated 27/02/2012 was presented to the audit team and checked. There were 11 persons present at the meeting and three questions were asked by them. The questions have been answered appropriately and listed in the protocol. No negative opinions have been listed.	OK	OK
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	Yes, the stakeholders from the Municipality of Struga have been invited to make comments at the presentation made by the reporesentative of MHE Jablanica DOO.	OK	OK
c. Is the summary of the comments received as provided in the PDD complete?	VVM	129	The summary of the comments presented in the CPA-DD is consistent with the protocol from the meeting with the stakeholders of the Municipality of Struga. The audit team checked the protocol which was presented by the CPA implementing entity during the site visit.	OK	OK
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	Three comments by the local stakeholders have been registered in the minutes of the meeting with the stakeholders. All have been taken into consideration and duly answered by the representative of the CPA implementing entity.	OK	OK
11. Environmental impacts					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	131	The CPA implementing entity has prepared and Environmental Impact Assessment report for CPA00001 Jablanica and submitted it for approval to the Macedonian Ministry of Environmental Protection and Spatial Planning. The approval is yet to come. See CAR1.	CAR1	OK
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	132	The CPA implementing entity have undertaken an analysis of environmental impacts in Section C.2 of the CPA-DD. However see CAR1	CAR1	OK
c. Does the host Party require an environmental impact assessment?	VVM	132	Yes, the host party requires an environmental impact assessment.	OK	OK
d. If yes, have the project participants undertaken an environmental impact assessment?	VVM	132	The CPA implementing entity has prepared and Environmental Impact Assessment report for CPA MA0001 Jablanica and submitted it for approval to the Macedonian Ministry of Environmental Protection and Spatial Planning. The approval is yet to come. See CAR1	CAR1	OK

Table 2 Specific validation activities

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
1. Project design of programme of activities					
a. Does the proposed small-scale project activity meet the requirements of the simplified modalities and procedures for small-scale CDM project activities?	VVM	134	Yes, a typical CPA included in this PoA will be having installed capacity less than or equal to 5MW (i.e., micro scale).	OK	OK
b. Does the project activity qualify within the thresholds of the three prossble types of small scale project activities? [Type (i) project activities: renewable energy project activities with a maximum output capacity equivalent to up to 15 megawatts; Type (ii) project activities: energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, by up to the equivalent of 15 gigawatt hours per year; Type (iii) project activities: other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15 kilotonnesof carbon dixide equivalent annually.]	VVM	135	Project activity qualify within Type (i) project activities: renewable energy project activities with a maximum output capacity equivalent to up to 15 megawatts.	OK	OK
c. Does the project activity conform to one of the approved small-scale categories?	VVM	135	Yes, a typical CPA included in this PoA will be having installed capacity less than or equal to 5MW (i.e., micro scale).	OK	OK
d. Does the project activity apply the relevant tool and methodology?	VVM	135	See (5.b.g) above	-	-
e. Are the small-scale methodologies applied in conjunction with the general guidance to the methodologies, which provides guidance on equipment capactiy, equipment performance, sampling and other monitoring-related issues?	VVM	135	See (5.b.a) above.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
f. Is the project activity a debundled component of a large-scale project, i.e., is there a registered small-scael CDM project activity or an application to register another CDM project actifity: (a) with the same project participants; (b) in the same project category and technology/measure; and (c) registered within the previous 2 years; and (d) whose project boundary is within 1 km of the proposed boudary of the proposed small-scale activity at the closest point?	VVM	135	The CPA should be able to demonstrate that it is not a de-bundled component of a larger project, as set out in section A.4.4.1 of the PoA-DD.	OK	OK
g. Is and assessment of the environmental impacts of the proposed CDM project activity required by the host Party?	VVM	135	See 3.c above.	OK	OK
h. Is the project additional?	VVM	136	See 6.c above	OK	OK

Table 3 Specific validation activities

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
2. Project design of small-scale clean development mechanism project activities					
i. Are the operational and management arrangements which have been established by the coordinating/managing suitable for the PoA being validated.	VVM	165	Yes, see 3.c.ix above.	OK	OK
j. Are these arrangements sufficient to ensure that the coordinating/managing entity will have control of all records and information related to the implementation of individual CPAs and will be in a position to ensure each CPA is being operated in accordance with the specific requirements of the programme?.	VVM	165	Implementation efficiency of operational and management arrangements will be validated during site visit.	OK	OK
k. Are the specified eligibility criteria in the POA-DD sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA, including inter alia the means of demonstrating the additionality of the CPA and the applicability of the applied methodology?	VVM	166	Yes, see 3.c.vii above.	OK	OK
l. Does any proposed CPA, which a coordinating/managing entity wishes to include in the PoA, complies with the eligibility criteria specified in the POA-DD?	VVM	167	The CPA MAC00001-Jablanica is proposed for inclusion in the CDM-PoA. It complies with the technical criteria for inclusion as follows: – Installed capacity, project type, and technology fit; - Eligibility as micro scale project activity; - Location, boundary and additionality; - Methodological fit; - De-bundling check; - Double counting check;	CL5 CL6 CAR1 CAR2 CAR3	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			- Stakeholders consultations. However there are no evidences of complying to the following criteria: - Starting date - Environmental impact assessment; - Management and legal matters; CL5:The CPA implementing entity is requested to present a copy of the Equipment Purchase Agreement in order to confirm the starting date of the project. CL6: CDM-CPA-DD,Section B2,Table 5, i.4: Methodological fit – the applicability conditions compliance are not described in details. CAR1:The CPA implementing entity is requested to provide an Environmental Impact Assessment Report regarding CPA MAC0001 – Jablanica, that is proposed for inclusion in the CDM-PoA. CAR2: The CPA implementing entity is requested to provide a declaration agreeing: - that the CPA will comply with all testing and certification requirements for hydropower technologies in the host country of Macedonia. - to comply with the prescriptions of the		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			operational and management procedures set out in section A.4.4.1 of the PoA-DD. - to adhere to the monitoring plan (section A.4.4.2 of the PoA-DD) and collect data as specified by the parameters listed in sections E.6.3 and E.7.1 of the PoA-DD. - That the CPA is implemented as a voluntary initiative and not due to mandatory policies or regulations. CAR3: The CPA is requested to provide an agreement with the CME on its legal inclusion in the PoA and the ownership and transfer of the rights to the emission reductions under the Clean Development Mechanism of the UNFCCC to the CME of this PoA.		

Table 4 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. To checklist question in table 1 and 2	Summary of project owner response	Validation team conclusion

CL1: Please provide written letters of approvals issued by each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD.	Table 1, 1.a	1st response: LoA will be submitted after the draft determination report issuance. 2nd response: LoA's are provided for validation team.	1 review: The Draft Validation report will be issued with this CL if LoA from the Host country is not provided. This report is suitable to submit to the Macedonian DNA and to request LoA (in case of absence of other CARs and CLs). 2 review: The Letter of Approval was issued by Ministry of Environment and Physical planning of the Republic of Macedonia on 23/11/2012 and by NL Agency Ministry of Infrastructure and the Environmental (The Netherlands) on 29/11/2012 for project participant Camco Carbon International Limited. Bureau Veritas Certification received the Letters of Approval from the project participant. Bureau Veritas Certification does not doubt the authenticity of the said letters, since the validation team verified the original documents. The letter of approval clearly states that Republic of Macedonia has ratified the Kyoto Protocol and that the approval is for voluntary participation in the CDM project activity.

			Also, the Letter of approval states that the project activity contributes to sustainable development. Hence CL1 is resolved and closed.
CL2: Please clarify, whether coordinating/managing entity does not wish to have all CPA verified (see STANDARD FOR SAMPLING AND SURVEYS FOR CDM PROJECT ACTIVITIES AND PROGRAMME OF ACTIVITIES (Version 02.0), EB 65)	Table 1, 3.c.xi	The coordinating/managing entity wishes to use verification method that does not use sampling but verifies all CPAs. Therefore, the 'Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities' (ver. 02.0) is not applicable to this PoA. The PoA-DD has been updated to take into consideration CL2 (ver.1.3, p.11)	PoA-DD section A.4.4.2 states that „The CME of this PoA opts for a verification method that does not use sampling but verifies all CPAs". Hence CL2 is closed.
CL3:Please provide an official statement from the CPA that no official funds from any Annex 1 country are involved in the PoA.	Table 1, 3.c.xiv	An official statement from the CPA has been provided in order to take into consideration CL3.	Official statement issued by MHE Jablanica DOO (dated 21/05/2012) was provided for validation team with clear statement that „no funding from any Annex 1 country has and/or will be involved to support of the project development". Hence CL3 is closed.
CL4:The PP is requested to present a schematic indicating the project boundary and its components.	Table 1, 5.c.(a)	To take into consideration CL4, a schematic indicating the project boundary and its components has been included in the subsequent version of the CPA-DD (ver. 1.3, p. 11-12)	PDD-CPA-DD is amended as requested, hence CL4 is closed.

CL5: The PP is requested to present a copy of the Equipment Purchase Agreement in order to confirm the starting date of the project.	Table 3, 2.I	The Equipment Purchase Agreement has been provided, in order to take into consideration CL5.	Equipment purchase agreement signed by MHE Jablanica DOO and GLOBAL HYDRO ENERGY GMBH, dated 06/09/2012 is provided for validation team. Hence CL5 is closed.
CL6: CDM-CPA-DD, Section B2,Table 5, i.4: Methodological fit – the applicability conditions compliance are not described in details.	Table 3, 2.I	To take into consideration CL6, Section B2,Table 5, i.4 has been amended.	CPA-DD is amended as requested, hence CL6 is closed.
CL7: The table for NCVm,i,y in Section B.5.1 of the CDM-CPA-DD is not completed	Table 3, 2.I	To take into consideration CL7, Section B.5.1 of the CDM-CPA-DD has been amended.	CPA-DD is amended as requested. However, please check lignite NCM values for a year 2009 with referenced data source. During the recent site visit of another project we have found values as follows: Bitola: 7,29, Oslomej: 6,67. Rev.2 – the NCV values for Bitola and Oslomej TPPs have been corrected in ver.1.6 of the CPA-DD and the attached ER calculation table respectively: for Bitola – 7.29 GJ/t and for Oslomej – 6.67 GJ/t. Hence CL 7 is closed.

CAR1:The CPA implementing entity is requested to provide an Environmental Impact Assessment Report regarding CPA MAC0001 – Jablanica, that is proposed for inclusion in the CDM-PoA.	Table 3, 2.I	The EIA and its official approval have been provided in order to take into consideration CAR1.	The attached EIA report approval is positive without any remarks or request for future actions as far, as the measures listed in the EIA report are fulfilled. The conclusion is that the project will have small effect on the environment. The EIA report approved was prepared by company BAR E.C.E DOOEl. The SHEPP is specified as in the CPA-DD and with the same name.The investor is listed as MHE Jablanica DOO as in the CPA-DD. The approval is dated 11 Sept. 2012, #11-5947/3. Hence CAR 1 is closed.

CAR2: The CPA implementing entity is requested to provide a declaration that he agrees: - That the CPA will comply with all testing and certification requirements for hydropower technologies in the host country of Macedonia. - to comply with the prescriptions of the operational and management procedures set out in section A.4.4.1 of the PoA-DD. - to adhere to the monitoring plan (section A.4.4.2 of the PoA-DD) and collect data as specified by the parameters listed in sections E.6.3 and E.7.1 of the PoA-DD. - That the CPA is implemented as a voluntary initiative and not due to mandatory policies or regulations.	Table 3, 2.I	Point 1 is included in the text of the contract between the CME and the CPA: *"Seller agrees that it shall carry out the Project with all due care, skill and diligence of an RPO [Reasonable Prudent Operator] and in accordance with all Applicable Laws and Authorisations." Applicable Laws means the International Rules, all legally binding constitutions, treaties, statutes, laws, ordinances, rules, regulations, orders, interpretations, permits, judgments, decrees, injunctions, writs and orders of any Government Authority or arbitrator that apply to any one or more of the Parties or the terms of this Agreement. Government Authority means any international, national, federal, provincial, state, municipal, county, regional or local government, administrative, judicial or regulatory entity operating under any Applicable Laws or International Rules and includes, without limitation: any department, commission, bureau, board, administrative agency or regulatory body of any government; and any International Agency.* Point 2 is also included in the text of the contract: "*Seller shall carry out the Project in accordance with the Project Design Document."*	Please provide copy of the contract (or parts of it) with referenced statements inside. Second comment: A copy of the contract with Camco Carbon International Limited signed on 12/09/2012 has been provided to the audit team with all required statements, CAR 2 is considered closed.

		Point 3 is also included in the text of the contract between the CME and the CPA: "*Seller shall be responsible for implementation of the Monitoring Plan.Throughout the Term of this Agreement, Seller must allow Buyer, the DOE or their nominees regular access to the Project (including the site(s) on which the Project is operated) and to any information held by Seller relating to the performance of the Project as reasonably requested by Buyer or as necessary to enable the carrying out of the Project, compliance with the Monitoring Plan, the International Rules and/or Verification of the GHG Reductions; Seller agrees that Buyer may amend the Monitoring Plan, including the duration or timing of any Monitoring Period, if in Buyer's reasonable opinion this is necessary to ensure the compliance of the Project with the International Rules or address a Change in International Rules or Change in Law or operational requirements in relation to the Project or Verification by the Designated Operational Entity".* Point 4 is covered by the statement letter provided by the PP. The information in section B.2., Table 5 in the CPA-DD has been changed to take into consideration the information sources of the different data points.	

		The signature page of the agreement has been provided.	
CAR3: The CPA implementing entity is requested to provide an agreement with the CME on its legal inclusion in the PoA and the ownership and transfer of the rights to the emission reductions under the Clean Development Mechanism of the UNFCCC to the CME of this PoA.	Table 3, 2.1	The signature page of the agreement has been provided. The contract states that: *"Seller shall not, during the term of this Agreement, without the prior written consent of Buyer, directly or indirectly (including through any agent or affiliate):* *enter into agreements or understandings in relation to, or submit requests or offers in response to other buyers, persons or tenders soliciting emission reduction credits or providing subsidies for marketing or, in each case, emissions reductions to be generated by the Project; or* *enter into agreements or submit requests to any person, in each case relating to services for the quantification and/or sale of emissions reductions in each case, emissions reductions to be generated by the Project."*	Please provide copy of the contract (or parts of it) with referenced statements inside (only title page is sent). Second comment: A copy of the contract with Camco Carbon International Limited signed on 12/09/2012 has been provided to the audit team with all required statements, including agreement on its legal inclusion in the PoA and the ownership and transfer of the rights to the emission reductions under the Clean Development Mechanism of the UNFCCC to Camco Carbon International Limited of this PoA. CAR 3 is considered closed.

FAR 1: The CPA implementing entity have to present during the first verification a final approved technical design and hydrological calculations of SHPP Jablanica.		Will be assessed during the first verification.	Is still open.