

VALIDATION REPORT

NuPlanet Project Development (Pty) Ltd

Title of PoA:


“NuPlanet Small Scale Hydropower PoA”

Report No.CCL0038/HPSAPP/19082011

Revision No.02

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0038/HPSAPP/19082011

PoA Title: NuPlanet Small Scale Hydropower PoA		Country: Republic of South Africa	Estimated CERs (tCO₂e of the 1st CPA): 24353	
GHG reducing measure/technology of the CPAs of the PoA:		The emission reduction would happen by displacement of the fossil fuel dominated grid electricity equivalent to the net electricity supplied by the Hydro power plant i.e. the CPAs of the PoA to the RSA grid.		
Client/CME: NuPlanet Project Development (Pty) Ltd		Client contact: Ms. Seline van der Wat NuPlanet House 53 De Havilland Crescent Perseuor Park, Pretoria, RSA Tel.- +27 12 349 2944 Email- seline@nuplanet.co.za		
Report No.: CCL0038/HPSAPP/19082011		Revision: 02	Date of this report: 19/12/2012	
Technical Reviewer: Vikash Kumar Singh		Date of approval: 20/12/2012		
Approved by (Final Report): Priyesh Ramlall 		Date of approval: 20/12/2012		
GPS coordinates of the PoA (geographical boundary):		The verified /B07-4/ range of geographic coordinates of RSA : Latitude: 22° S to 35° S Longitude: 16° E to 33° E		
Organisational Unit: Carbon Check (Pty) Ltd				
Report Distribution: <input type="checkbox"/> Unrestricted Distribution <input type="checkbox"/> Limited Distribution <input type="checkbox"/> No Distribution (without permission from the Client or responsible organisational				
Methodology				
Number: AMS-I.D.	Version: Version 17	Title: Grid connected renewable electricity generation	Scale: Small Scale	SS(s): 1 TA: 1.2
Carbon Check Pty Ltd., (CCL) is commissioned by NuPlanet Project Development (Pty) Ltd (the CME) to perform the validation of the Program of activities "NuPlanet Small Scale Hydropower PoA", with regard to the relevant requirements for CDM programme of activities.				
Summary of the PoA Validation and Opinion:				
<input checked="" type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have provided CCL with sufficient evidence for the determination of the PoA's fulfillment of all stated criteria. In our opinion, the PoA meets all relevant UNFCCC requirements for the CDM. Therefore, CCL recommends the PoA for registration by the CDM Executive Board.				
<input type="checkbox"/> The reviews of the project design documentation and the subsequent follow-up interviews have not provided CCL with sufficient evidence for the determination of the PoA's fulfillment of all stated criteria. Therefore, CCL will not recommend the PoA for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board of this decision.				

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VALIDATION TEAM		ROLE					
Full Name	Appointed for Sectoral scopes (Technical Areas)	1 Team Leader	2 Local Expert	Team Member (Auditor)	Trainee Auditor	Technical Expert	Technical Reviewer
Mr. Pankaj Kumar	1.1, 1.2, 3.1, 4.5, 13.1	X				X	
Mr. Ravi Shankar	1.2, 2.1, 2.2, 3.1, 13.1		X	X			
Mr. Barun Kumar	-				X		
Mr. Vikash Kumar Singh	1.2, 3.1, 13.1						X

3 VALIDATION PHASE	VALIDATION STATUS
<input checked="" type="checkbox"/> Desk Review	<input type="checkbox"/> Corrective Actions / Clarifications requested
<input checked="" type="checkbox"/> Follow up interviews	<input checked="" type="checkbox"/> Full approval and submission for registration
<input checked="" type="checkbox"/> Resolution of outstanding issues	<input type="checkbox"/> Rejected

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Executive Summary – Validation Opinion

The validation team of Carbon Check (Pty) Ltd performed the validation of the PoA titled “NuPlanet Small Scale Hydropower PoA.

Standard auditing techniques have been used for the validation of the PoA. An analysis, as provided by the applied methodology, demonstrates that the proposed PoA is not a likely baseline scenario. Emission reductions attributable to the PoA (eligible CPAs of the PoA) are additional to any that would occur in the absence of the proposed eligible CPAs. Given that the PoA is implemented as designed, the CPAs are likely to achieve the emission reductions.

The validation is based on the information made available to Carbon Check (Pty) Ltd., as well as the engagement conditions detailed in this report. The validation has been performed following the VVM requirements.

The validation was executed in the following steps so far:

- Receipt of PoA-DD (version 1.0, dated 24/03/2012) CPA DD (generic) and real case CPA DD (version 1.0, dated 24/03/2012) for global stakeholder comments.
- Global stakeholder comment process (04/04/2012 to 03/05/2012)
- On-site visit with stakeholder interviews (10/05/2012 & 11/05/2012)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft validation report and protocol
- Desk review of revised DDs applying AMS-I.D.(version 17)
- Review of responses for CARs/CLs
- Issue of the final validation report and protocol

During the course of validation a total of 11 Corrective Action Requests (CARs) and 11 Clarification Requests (CLs) were identified on webhosted PoA-DD /01/ and gCPA-DD/02/. Upon evaluation of responses provided by the Project Participants, all the identified issues were closed successfully.

The single purpose of this report is its use during the registration process as part of the CDM project cycle. In the opinion of Carbon Check (Pty) Ltd., the PoA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. Carbon Check (Pty) Ltd. thus recommends the PoA to be registered with the UNFCCC.

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Abbreviations

BE	Baseline Emissions
CAR	Corrective Action Request
CC	Cross Check
CCL	Carbon Check (Pty) Ltd
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CME	Coordinating/managing entity and participants of PoA
CPA	CDM Programme Activity
CPA-DD	CDM Programme Activity design document
DR	Document Review
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
I	Interview or any follow up action
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MoV	Means of Validation/Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PE	Project Emission
PoA	Programme of Activities
PD	Power Density
PoA-DD	Programme of Activities design document
PP(s)	Project Participant(s)
Ref.	Document Reference
RSA	Republic of South Africa
SD	Sustainable Development
SS(s)	Sectoral Scope(s)
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

NuPlanet Project Development (Pty) Ltd (hereafter referred as “CME”) has commissioned the DOE Carbon Check (Pty) Ltd to perform validation of the proposed CDM Programme of Activities (PoA) “NuPlanet Small Scale Hydropower PoA” in Republic of South Africa (hereafter called “the PoA”). This report summarizes the findings of the validation of the PoA identified in the PoA Design Document (PoA-DD); the CDM Programme Activity Design Document (gCPA-DD) template with generic information relevant to all CDM Program Activities (CPAs) to be included in the PoA, and the associated real case CPA-DD. The validation was performed on the basis of UNFCCC criteria for the PoAs under the CDM, as well as criteria given to provide for consistent programme operations, monitoring and reporting. The term “UNFCCC criteria” refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the simplified modalities and procedures for small-scale CDM project activities, the procedures for registration of a programme of activities and the subsequent decisions by the COP/MOP and CDM Executive Board. In addition to these criteria, host country criteria are also taken into account.

1.1 Objective

The purpose of a validation is to have an independent third party assess the PoA-DD, CPA-DD template and the associated real case CPA-DD (also known as specific CPA-DD). In particular, the eligibility criteria for inclusion and demonstration of additionality of CPAs, the programme’s baseline determination, monitoring plan, and the programme’s compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the programme design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM PoAs and is seen as necessary to provide assurance to stakeholders of the quality of the programme 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 PoA-DD, CPA-DD template and the real case CPA-DD. The PoA-DD, CPA-DD template and the real case CPA-DD were reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the simplified modalities and procedures for small-scale CDM project activities, the procedures for registration of a programme of activities as a single CDM project activity and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology AMS-I.D. (Version 17).

The validation team has, based on the requirements contained in the Validation and Verification Manual and the procedures for registration of a programme of activities as a single CDM project activity employed a rules-based approach, focusing on the identification of significant risks for programme implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the PoA Managing Entity, CPA Implementer(s) and/or project participant(s) (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the programme design.

2 METHODOLOGY

The validation consists of the following four phases:

- I. Publication of the programme design documents (PoA-DD, CPA-DD template and completed CPA-DD) in UNFCCC for global stakeholder consultation;
- II. A desk review of the PoA-DD, CPA-DD template and the associated real case CPA-DD;
- III. On-site visit and follow-up interviews with programme stakeholders; and
- IV. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The following sections outline each step in more detail.

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2.1 Document Review

The following table lists the documentation that was reviewed during the validation.

REFERENCE NO.	DOCUMENTS
/01/	POA-DD (webhosted version), for "NuPlanet Small Scale Hydropower PoA", Version 1.0, Date – 24/03/2012
/02/	CPA-DD template (webhosted version)
/03/	POA-DD for "NuPlanet Small Scale Hydropower PoA", Version 02, Date – 17/12/2012
/04/	Final CPA-DD template
/05/	Letter of Approval from the DNA of Republic of South Africa (dated 19/09/2012), authorizing NuPlanet project Development (Pty) Ltd as the project proponent and the coordinating and managing entity (CME) to participate in the CDM project.
/06/	Modalities of communication dated, 08/11/2012
/07/	The Management System for the NuPlanet Small Scale Hydropower PoA Version 1.1 (dated 03/10/2012).
/08/	No ODA (involved/diverted as a result of the PoA) declaration dated 15/02/2012.
/09/	Certification of Incorporation of NuPlanet Project Development (Pty) Ltd. (Registration No.: 2006/016654/07, dated 30/05/2006
/10/	Grid Emission Factor (GEF) calculation spread sheet
/11/	The Electricity Regulation Act, 2006 (Act No. 4 of 2006) (http://www.energy.gov.za/files/policies/NationalEnergyRegulatorAmendmentBill.pdf)
/12/	Integrated resource plan for electricity 2010-2030 (http://www.energy.gov.za/IRP/2010/IRP_2010.pdf)
/13/	Contract between the CME and DOE for the validation.
/14/	CER spread sheet template (=corresponding to final CPA-DD (specific).
/15/	PoA- Quality control, ver.1.0 dated April, 2012
/16/	Monitoring: Training Plan , ver. 1.0 dated April 2012
/17/	Monitoring procedure, ver. 1.0 dated April 2012
/18/	Data management and reporting, ver. 1.0 dated April 2012
/19/	CME training plan, ver. 1.0 dated April 2012
/20/	Calibration plan, ver. 1.2 dated Sept. 2012
/21/	Declaration from the CME dated 15/08/2012: PoA is a voluntary action by CME and is not mandated by any law or regulations of republic of South Africa.
/22/	Agreement between CME and CPA implementer.
/23/	Certificate for operational life time of the project from technology supplier
/24/	Financial spread sheet (template) corresponding to final CPA-DD (specific)
/25/	EIA legislation - (No. R. 385, 21 April 2006 REGULATIONS IN TERMS OF CHAPTER 5 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, and sub-regulations R387 and R386

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Background documents/websites:

/B01/	CDM VALIDATION AND VERIFICATION MANUAL, VERSION 01.2, EB 55 (ANNEX 1)
/B02/	AMS-I.D. Grid connected renewable electricity generation (version 17)
/B03/	Tool to calculate the emission factor for an electricity system, version 02.2.1, EB 63 (Annex 19)
/B04/	<p>PoA Specific guidelines / standards published by UNFCCC:</p> <ol style="list-style-type: none"> 1. CDM programme of activities design document form (CDM-PoA-DD) Version 01, EB 33 2. CDM programme activity design document form (CDM-CPA-DD) Version 01, EB 33 3. 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 04.1, EB 55 (Annex 38) 4. Procedures for review of erroneous inclusion of a CPA, version 03, EB 61 (Annex 22) 5. Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, version 01, EB 65 (Annex 03) 6. 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, EB 60 (Annex 26) 7. Guidelines on assessment of de-bundling for SSC project activities, Version 03, EB 54 (Annex 13) 8. Guidelines on the demonstration of additionality of small-scale project activities, version 09.0, EB 68 (Annex 27) 9. Guidelines for demonstrating additionality of micro-scale project activities” (Version 03) in EB63 Annex 23 10. ‘Guidelines for objective demonstration and assessment of barriers’, version 01
/B05/	General Guidelines for SSC CDM methodologies, version 19.0, EB 69 (Annex 27)
/B06/	Glossary of CDM terms, version 07, EB 70
/B07/	<p>Websites:</p> <ol style="list-style-type: none"> 1. www.unfccc.int 2. http://www.cdmpipeline.org/ 3. http://www.unepri-soe.org/default.aspx 4. http://en.wikipedia.org/wiki/South_africa#Geography

The changes between the PoA-DD version 1.0 published for the 30 days stakeholder commenting period/01/ and the final version submitted for registration/03/ are addressed in the table 1 and 2 of the validation protocol as a part of this report.

The main changes between the PoA-DD, version 1.0/01/ published for the 30 days stakeholder commenting period and the final version/03/ submitted for registration are presented in the below table as follows:

Topic	POA-DD – GSC/01/	FINAL POA-DD/03/	ASSESSMENT
PoA title	“NuPlanet Small Scale Hydropower PoA”	“NuPlanet Small Scale Hydropower PoA”	No Change
Parties	Angola Democratic Republic of the Congo Lesotho Mozambique Namibia Swaziland South Africa	Republic of South Africa (Host)	Please refer to the CAR-01 and its detailed closure.

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	Zambia Zimbabwe		
Scope	1: Energy Industries (renewable / non-renewable sources)	1: Energy Industries (renewable / non-renewable sources)	No change
Methodology / Activity	AMS-I.D. (version 17)	AMS-I.D. (version 17)	No change
Amount of emission reductions (tCO ₂)	Quantification of ERs at PoA level is not required as per the PoA DD template.	Quantification of ERs at PoA level is not required as per the PoA DD template.	No change
PoA starting Date	04/04/2012	04/04/2012	In final PoA-DD the date of GSC is considered as start date of PoA which is in compliance with PoA start date definition in latest CDM glossary, ver, 07, EB 70. Please refer CL 11 and its detailed closure.
Real case CPA starting Date	September 2012 (the date of publishing of the PoA for global stakeholder consultation)	01/05/2013	Expected start date as per the specific CPA DD revised as per implementation schedule. Please refer to the CPA validation report.
PoA Location	Republic of South Africa	Republic of South Africa	No change

2.2 Follow-up actions

In order to reach to a Validation Opinion a site visit along with an interview was planned for 10/05/2012 and 11/05/2012. Prior to the interview salient points to be discussed were planned. Date of interview, interviewee and points discussed are given in the following table.

Sr. No.	Date	Name and Role	Organization	Topic
/a/	10/05/2012	S.VAN DER WAT Project Manager	NuPlanet Project Development (Pty) Ltd	<ul style="list-style-type: none"> • CME coordinating CDM functions and responsibilities. • Discussion on recordkeeping, monitoring plan and manual. • Discussion on double counting • Discussion on financing pattern(means of finance) of the CPAs(including real case) and involvement of public

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				<p>funding</p> <ul style="list-style-type: none"> • CME coordinating CDM functions and responsibilities. • Decision to undertake the project as CDM project. • Discussion on stated goal and policy of the PoA. • Discussion on the operational and management arrangements of the PoA. • Discussion on LSC and statutory clearances required for the implementation of the CPA.
/b/	10/05/2012 11/05/2012	ANTON-LOUIS OLIVIER Managing Director	NuPlanet Project Development (Pty) Ltd	
/c/	10/05/2012	ROB SHORT Carbon Advisor	Promethium Carbon (Pty) Ltd	<ul style="list-style-type: none"> • Discussion on eligibility criteria and inclusion of a typical CPAs in the PoA including the real case CPA. • Discussion on Additionality justification on PoA level and on typical CPA level including the real case CPA.
/d/	11/05/2012	HJ SWANEPOEL Financial Manager	Promethium Carbon (Pty) Ltd	<ul style="list-style-type: none"> • Investment analysis

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

2.3 Resolution of outstanding issues

The objective of this phase of the validation is to resolve any outstanding issues, which need be clarified prior to Carbon Check's conclusion on the PoA design. In order to ensure transparency a validation protocol is customised for the programme. The protocol shows in transparent manner criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

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

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

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

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

A request for clarification (CL) may be 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 be raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity.

Figure1 Validation protocol tables

Validation Protocol, Table 1 - Requirement checklist					
Checklist Question	Ref.	MoV	Comments	Draft Conclusion	Final Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in seven different sections.	Makes reference to documents where the answer to the checklist question or item is found.	Explain how conformance with the checklist question is investigated. Examples are document review (DR), interview or any other follow-up actions (I), cross checking (CC) with available information relating to projects, (N/A) means not applicable.	The discussion on how the conclusion is arrived at and the conclusion on the compliance with checklist question so far.	OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements. For CAR, CL and FAR see the definitions above.	OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements.

Validation Protocol, Table 2 - Resolution of Corrective Action Requests and Clarification			
Corrective action requests and/or clarification requests	Reference to Table 2	Response by project participants	Validation Conclusion
The CAR and/or CLs raised in table 1 are repeated here.	Reference to the checklist question number in Table 1 where the CAR or CL is explained.	The responses given by the project participants to address the CARs and/or CLs.	The validation team's assessment and final conclusion of the CARs and/or CLs.

VALIDATION PROTOCOL, TABLE 3 - FORWARD ACTION REQUESTS		
Forward action request	Reference to Table 2	Response by project participants Validation Conclusion
The FAR raised in table 1 is repeated here.	Reference to the checklist question number in Table 1 where the FAR is explained.	Response by the project participants on how forward action request will be addressed prior to first verification.

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2.4 Internal quality control

Before the assessment begins, members of the team covering the technical area(s), sectoral scope(s) and relevant host country experience for evaluating the CDM PoA/CPA are appointed. The validation report including the validation findings underwent a technical review. A technical reviewer qualified in accordance with Carbon Check's qualification scheme for CDM validation and verification performed the technical review.

2.5 Validation team and the technical reviewer(s)

The validation team and the technical reviewers consist of the following personnel:

VALIDATION TEAM		TYPE OF INVOLVEMENT						
Full Name	3 Appointed for Sectoral scopes (Technical Areas)	4 Supervision of work	Desk review	Site visit & Interview	Report & protocol writing	Technical Expert Input	Reporting support	Technical Reviewer
Mr. Pankaj Kumar	1.1, 1.2, 3.1, 4.5, 13.1	X	X	X	X	X		
Mr. Ravi Shankar	1.2,2.1, 2.2, 3.1, 13.1			X		X		
Mr. Barun Kumar	-		X	X			X	
Mr. Vikash Kumar Singh	1.2, 3.1,13.1							X

3 VALIDATION FINDINGS

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

During the course of validation a total of 11 Corrective Action Requests (CARs) and 11 Clarification Requests (CLs) were identified on webhosted PoA-DD /01/ and gCPA-DD/02/. Upon evaluation of responses provided by the Project Participants, all the identified issues were closed successfully

The final validation findings relate to the programme design as documented and described in the PoA-DD/01/ and g-CPA-DD/02/.

3.1 Approval and Participation

The below table summarizes the project participant and party involved. The validation team received letter of approval for Host party from the CME of the PoA/05/. This LoA is therefore regarded as valid and meeting the CDM requirements.

The Validation Team can confirm that issued LoA from host party refers to the precise proposed PoA title as in the PoA-DD/03/ and g-CPA-DD/04/. The Validation Team can confirm that the project participant i.e. the CME is listed in tabular form in section A.3 of the PoA-DD /03/ and this information is consistent with the contact details provided in Annex 1 of the PoA-DD /03/. The letter of approval was also found to be unconditional with respect to paragraph 45 (a) to (d) of VVM, version 01.2 /B01/. And hence these letter(s) are in accordance with paragraphs 45 - 48 of VVM version 01.2. The LoA, was checked and found in compliance of CDM requirements including requirements of PoA vide § 8, 9 and 10 of annex 38, EB 55/B04-3/.

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The below table summarizes the project participants and parties involved:

PROJECT PARTICIPANT/CME	NUPLANET PROJECT DEVELOPMENT (PTY) LTD
Party Involved	Republic of South Africa
Approval	
LoA Received	Yes
Date of LoA/05/	19/09/2012
LoA issued by/05/	DNA of Republic of South Africa: Department of Energy
Approval Number	N/A
Validation of Authenticity /05/	The LoA was received from the project participant directly. The Validation team does not doubt authenticity of LoA, hence did not further cross verified the authenticity by means of communication with the DNA as required in § 48 VVM, Ver 01.2/B01/.
Validity of LoA	Yes, validation team considers the LoA in accordance with § 45 to 48 VVM, Ver 01.2 /B01/
Participation	
Party is party to the Kyoto Protocol /05/	Yes
Voluntary participation /05/	Yes
Diversion of Official Development Assistance (ODA) towards host country	No
Project contribution to Sustainable Development /05/	Yes

Validation of ODA

The validation did not reveal any evidence that this PoA can be seen as a diversion of ODA. It is also confirmed by the interview with Mr. Anton-Louis Olivier/a/, and through declaration provided by CME/08/ about no ODA diversion from Annex-I party in the development of the PoA.

Confirmation of Modalities of Communication (MoC)

The project Modalities of Communication (MoC)/06/ signed on08/11/2012 was received from the CME. As required in Procedures for Modalities of Communication between Project Participants and the Executive Board Annex 59 of EB 45, the Validation Team has verified the names of authorised signatories for future communication related to the corresponding scope of authority with UNFCCC from the Host country project participant. The Validation Team can confirm that the signatory and contact details on the MoC are authorized and credible. The MoC has been directly received from the CME.

3.2 Programme of Activities Design Document

The PoA-DD/03/ and the CPA-DD template/04/ are in compliance with relevant form/B04-1,2/ and guidance/B04/ as provided by UNFCCC. The most recent version of the forms is used. Validation team confirms that the guidelines for the completion of the PoA documents (as contained in the DD form itself) in their most recent version have been followed. The Co-ordinating and Managing entity and/or project participants in the applicable PoA sections provided relevant information. Validation team further confirms the consistency between PoA-DD/03/ and the PoA generic CPA-DD/04/ to be used for inclusion of a CPA in the registered PoA, this confirms to the requirement of § 15 (d) of EB 55 annex 38

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3.3 Programme Description

The “NuPlanet Small Scale Hydropower PoA” (here in after referred as the “PoA”) is promoted by the Coordinating and Managing Entity (CME) “NuPlanet Project Development (Pty) Ltd.”

The potential CPAs of the PoA involve installation of the small scale hydropower plant in South Africa which includes both run of river & reservoir type hydro power plants. NuPlanet Project Development (Pty) Ltd will be the coordinating and managing entity of the PoA. The CDM programme activities (CPAs) under the PoA will be implemented in South Africa. It was validated that there is no mandatory policies or regulations for the installation of the hydropower plant /21/. The proposed PoA is a voluntary action by the coordinating/managing entity – NuPlanet. As verified from the PoA DD /03/ and declaration from the CME /21/, validation team confirms that the propose programme is a voluntary co-ordinated action by the CME and the stated goal of the PoA is transparently explained in the PoA DD /03/, this also confirms to the requirement of § 4 of EB 55 annex 38.

Under the PoA, the hydropower plant shall export the generated electricity to grid as defined in the Power Purchase Agreement of the respective CPA /03/. The typical CPA under this PoA would involve the installation of the barrages, diversion tunnels, fore bays, spillways, pressure pipes, powerhouses, and booster stations including turbine & generator for power generation.

Currently in RSA most electricity generation is based on fossil fuel fired power plants. The state-owned company Eskom manages the energy system of the country. It is in charge of generation, transmission and distribution of power to end-users. The emission reduction would happen by displacing the fossil fuel dominated grid electricity equivalent to the net electricity supplied by the small scale hydro power plant i.e. the CPAs of the PoA to the RSA grid measure for the CPAs utilising AMS I.D. Each small scale CPA of the programme involves implementation of Hydro project/s with an installed capacity below 15 MW and supplying electricity either to the grid i.e. RSA. Validation team confirms that the PoA DD /03/, transparently describes 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 i.e. AMS I.D version 17 /B02/, this also confirms to the requirement of § 6(f) of EB 55 annex 38. The geographical boundary of the PoA is confirmed to within South Africa, checked and confirmed by reviewing the PoA-DD /03/. Review of PoA DD /03/ reveals the definition of the boundary for the PoA in terms of a geographical area i.e. within RSA (within which all CPAs included in the PoA will be implemented) has been transparently defined and it take into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary are reflected in the determination of the baseline. This confirms to the requirement of §6 (b) of EB 55 annex 38.

As per the PoA DD, there is possibility of use of diesel for emergencies internal use (on site) by the CPAs of the PoA and their project site and hence CME has considered this emission source in the PoA-DD and accordingly monitoring parameters has been included in section E.7.1 of the PoA-DD. The CPAs of the PoA shall use small scale methodology AMS I. D. version 17. From the OSV and review of PoA DD, it is confirmed that CPAs of the PoA shall utilize brand new equipment; hence leakage is not applicable as per the applied methodology. Furthermore validation team confirm that the CME has provided all methodological equation in section E.6.1 of the PoA DD /03/ to calculate emissions of CH₄ from the reservoir. While doing so PP has correctly provided CAP_{BL} and ABL in section E.6.2 of the PoA DD /03/ and CAP_{Pj} and A_{Pj} in section E.7.1 of the PoA DD /03/. Review of PoA DD /03/ reveals that confirmation has been provided in the PoA DD /03/ that that technology involves in the CPAs of the PoA is not transferred from any other site, hence based on this validation team confirms that no leakage shall be applicable of the CPAs of the PoA. This has also been included as one of the eligibility criteria for the future CPAs of the PoA.

The reduction of GHG emissions as a result of the implementation of the CPAs will be achieved due to reduction of CO₂ emissions from combustion of fossil fuel at the existing grid-connected power plants. The CDM programme activities (CPAs) under the PoA will be implemented within the geographical boundary of Republic of South Africa. Thus, the PoA aims to support RSA’s efforts to move to a low carbon future, considering the contribution to sustainable development through environmental, social and economic benefits.

According to the description provided under PoA-DD /03/ and based on interview with the CME, a signed declaration by CME /21/ and relevant stakeholders, validation team confirms that this PoA is a

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voluntary co-ordinated action by the CME. The same is also substantiated through the letter of approval (dated 19/09/2012) issued by the DNA of the host country /05/.

As per the PoA-DD/03/ and on-site interviews it was confirmed that there are no existing laws or policy in Republic of South Africa that mandates the use of renewable sources (and hydro power which is the case for the subject PoA) of electricity generation.

From the site visit interviews and desk review of PoA-DD /03/ it is revealed that this programme does not involve any ODA funding. Thus, the validation team considers that no ODA funding from any Annex 1 country has been involved under this programme. This is further confirmed by the undertaking provided by the CME /08/.

The starting date of the PoA in the PoA-DD/03/ is 04/04/2012 which is the date of publication of PoA-DD for GSC. The length of the PoA is taken as 28 years. The starting date of the validation of the PoA is 04/04/2012 i.e. the date the PoA was published for GSC. In the PoA-DD/03/ and generic CPA-DD/04/, it has been confirmed that no CPA shall be applicable for the inclusion in the PoA if the start date is before the start of validation. This is in conformity with the § 7(d) of annex 38 of EB 55/B04-3/.

3.4 Eligibility Criteria for CPA Inclusion

Review of PoA-DD/03/, CPA-DD template/04/ and on-site interview with representatives of CME reveals that the CME of the PoA employs clear and unambiguous criteria for the inclusion of the CPAs. The eligibility criteria have been stated and validation team confirms the eligibility criteria are in line with requirement of § 14, annex 3 of EB 65/B04-5/. Additionality and applicability of the applied methodology are the eligibility criteria as per the PoA DD /03/, which is deemed appropriate and acceptable to the validation team. This also confirms to the requirement of the § 15(b) of EB 55 annex 38. The eligibility criteria can be checked at the CPA level by the CME and shall be confirmed by the DOE before inclusion of the CPAs in the PoA.

SI. NO.	ELIGIBILITY CRITERIA DESCRIPTION IN POA-DD/03/ AND G-CPA-DD	INFORMATION/DOCUMENT REQUIRED AS LISTED IN THE POA-DD/03/ AND G-CPA-DD	ASSESSMENT BY THE VALIDATION TEAM
1.	Any CPA must be located within the internationally recognised boundaries of the Republic of South Africa.	The GPS co-ordinates for the CPA will be checked and confirmed by the CME that these fall within the boundaries of the Republic of South Africa.	Justification provided to check whether the CPA is well within the geographical boundary of the proposed PoA is found to be appropriate by the validation team and hence, acceptable. At the time of inclusion request of any proposed CPA, CME shall submit the related documents to the DOE who will be performing validation for the consistency and integrity check. The DOE will confirm at the time of inclusion of the CPA that the proposed location of the CPA is comes under the boundary of the PoA
2.	Each CPA must be	The CPA implementer must provide the	At the time of inclusion

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	linked to specific geographical co-ordinates supported by a description of its location (the description should include a reference to a national land registry system, if such a system exists)	GPS co-ordinates of the proposed CPA site to the CME. The CME will confirm, through a search of the UNFCCC website, that the CPA is not part of another PoA or is a standalone CDM project activity.	request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will beperforming validation for the consistency and integrity check. At the time of inclusion request of CPA, DOE will check the unique number provided to CPAs from the CME. This unique number revealed that the CME has check and ensure that the CPA is already not a part of the other Programme of Activities or developed as stand-alone CDM project.
3.	Each CPA will use hydroelectricity renewable energy generation technology only. The technology will satisfy all relevant national testing and certification requirements. This will be shown through a review of the feasibility study related reports that describe the technology to be used.	The CME will confirm through a review of technical and/or feasibility related documentation for the project that it is a hydroelectricity renewable energy generation project and that it is or will be in compliance with applicable (if any) national testing and certification requirements. All CPAs will be required to provide the CME with relevant technical and feasibility related documentation.	At the time of inclusion request of any proposed CPA, CME shall submit the document as evidence to the DOE as mentioned in the PoA-DD for specification of technology. The documents prescribed are: proposals, requests for quote, quotations, tender documents, project design diagram, project report or equivalent documents provided by the CPA. Validation team found that this is appropriate and sufficient for this criterion to be fulfilled.
4.	Each CPA should show that the earliest date of its first real action or implementation or construction was after the date on which the CDM-PoA-DD was published for Global Stakeholder Consultation.	The start date of the CPA must be shown to be after the date of the PoA's GSC i.e. 04/04/2012. Documented evidence from the CME showing a start date after 04/04/2012, such as (inter alia) : investment decision from the CPA implementer, related to a main project component, including the planned date for starting the work- signed Contract documents related to a main project component	CME shall check and submit the evidence provided by CPA implementer for the start date of CPA. The document list provided is found appropriate and in line with the EB 66Annex 63. Moreover, the CPA start date is/will not before the date of upload of PoA-DD (i.e. 04/04/2012) for

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		The CPA implementer will define what is being used to define the start date (as per the CDM definition) and provide documentary evidence to the CME to confirm the start date.	GSC as stipulated in §7(d) of EB55 Annex 38. The same has been mentioned by the CME and found appropriate
5.	The CPA must have a capacity of less than 15MW.	The CPA must provide the CME with relevant technical and/or feasibility related documentation confirming that the CPA has a capacity less than 15MW.	At the time of inclusion request of any proposed CPA, CME shall submit any of the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure applicability of the applied methodology at the time of CPA inclusion.
6.	The CPA must involve either the (a) installation of either 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) or (b) involve a capacity addition or (c) involve a retrofit of an existing plant or (d) a replacement.	The CPA must provide the CME with relevant technical and/or feasibility related documentation confirming what the CPA involves in terms of the nature of the project activity and whether it falls under the four options defined.	At the time of inclusion request of any proposed CPA, CME shall submit any of the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure applicability of the applied methodology at the time of CPA inclusion.
7.	CPAs with reservoirs must satisfy at least one of the following conditions: <ul style="list-style-type: none"> The CPA is implemented in an existing reservoir with no change in the volume of reservoir. The CPA 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 	The CPA must provide documentary evidence to the CME to show whether it has a reservoir or not (as per CDM definitions). <p>If the CPA does have a reservoir then the documentary evidence must show that it satisfies one of the three conditions as defined in the eligibility criteria.</p>	At the time of inclusion request of any proposed CPA, CME shall submit any of the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure applicability of the applied methodology at the time of CPA inclusion.

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	reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m ² .		
8.	The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality as specified in Section A of EB 65 Annex 3	Each small scale CPA shall meet the requirements of Guidelines On The Demonstration Of Additionality Of Small-Scale Project Activities, Annex 27 (version 09.0), EB68 and General Guidelines for SSC CDM Methodologies along with corresponding supporting documents for the demonstration of additionality.	DoE at the time of inclusion of the CPA shall confirm that the additionality argument put forth in the PoA-DD for the typical CPA of the PoA is valid and applicable for the subject to CPA under consideration.
9.	CPAs will have undertaken stakeholder consultations, which will have been formally recorded.	Local stakeholders must have been consulted. Moreover, following document need to be submit to the CME: i) Invitation letters and/or newspaper advertisement and/or public notice for the invitation of local stakeholders ii) Photographs and/or video evidence of stakeholder consultation iii) Attendance list of attended stakeholders iv) Q&A or Minutes Meeting of stakeholder consultation	As per the provisions in PoA-DD, LSC will be done at the CPA level. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check.
10.	CPAs will have undertaken an analysis of their environmental impacts, which will have been formally recorded.	The CPA must be compliant with the Host Country requirements in terms of environmental impact analysis. EIA exemption letter from Department of Environment or EIA report from authorized party, or letter from an environmental lawyer confirming that the EIA requirements or equivalent is not necessary for the CPA	As per the provisions in PoA-DD environmental analysis will be done at the CPA. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned document to the DOE who will be performing validation for the consistency and integrity check.
11.	Conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance	Documented evidence from the CME including: - a declaration from Annex 1 Project Participant that the CPA does not receive any public funding, or if it does receive public funding, that such funding does not constitute ODA diversion. - a declaration from the CPA implementer that the CPA does not receive any public funding, or if it does receive public funding, that such funding does not constitute ODA diversion	At the time of inclusion request of any proposed CPA, CME shall submit the mentioned document to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure non-diversion of ODA during inclusion validation.
12.	CPAs will show clearly	The CPA will provide documentary	At the time of inclusion

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	that the target group is grid-connected. This will be shown clearly through a review of the feasibility related documentation, clearly indicating that hydroelectricity will be delivered into the grid's electricity transmission system. As CPAs will be feeding into the grid via the transmission system, an eligibility criterion related to distribution mechanisms is not required.	evidence (e.g. feasibility and/or technical studies) that the CPA is grid-connected.	request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure hydroelectricity will be delivered into the grid's electricity transmission system check during inclusion validation.
13.	Where applicable, the conditions related to sampling requirements for a POA in accordance with the approved guidelines/ standard from the Board pertaining to sampling and surveys.	This PoA and CPA do not use the sampling method for monitoring and verification.	Not applicable. Hence no supplementary evidence required during the inclusion validation.
14.	Where applicable, the conditions that ensure that every CPA in aggregate meets the small-scale or micro scale threshold criteria and will remain within these thresholds throughout the crediting period of the CPA.	Each small-scale CPA shall meet the small-scale threshold criteria and remain within this threshold throughout the crediting period of the CPA, 15MW for Type I methodologies For Type I, documented evidence from the CME such as (inter alia) design document, request for quote, proposal, signed contract, approved board decision, or equivalent, showing that the installed capacity (or planned capacity) is below 15MW.	CME shall check the document prescribed at the time CPA inclusion consideration. DOE also crosscheck and confirm the same. The justification and document list is found appropriate by the validation team.
15	CPAs shall show that they are not debundled projects through the application of the latest applicable and approved version of the "Guidelines on assessment of debundling for SCC project activities".	Documented evidence from the CME such as(inter alia): - Contractual agreement between CME and CPA implementer including confirmation with list of projects implemented by CPA Implementer that apply the same technology / measure. - if applicable, list of CPAs of a large scale PoA with the same CME applying the same technology / measure.	CME shall check the mentioned list in the prescribed documents and submit to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure debundling check during CPA inclusion.

Validation team has checked the Management System/07/ of CME and based on this documents and on-site interview with personnel involved at the CME end, validation team confirms that the CME has competencies to check the features of potential CPAs of PoA and also have competency to check that each CPA meets all requirements and eligibility criteria before submission to the DOE for the inclusion. Based on above validation team confirms the compliance of § 14 -15 of annex 3 of EB 65/B04-5/.

Moreover, during the course of validation, CAR -08 related to eligibility criteria was raised and successfully closed.

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3.5 Operation and Management Plan

Validation team based on the review of PoA-DD /03/ and CME Management System /07/ confirms that clear and transparent description of the operational and management arrangement has been established by the CME for the PoA. The same has also been confirmed during the on-site interview with representative of CME. All the details of individual CPAs including the documents shall be controlled at CME end. Furthermore the records of individual CPAs shall be maintained by the CME at their office in electronic (excel sheet) format.

Individual CPA implementer shall sign agreements included in management system /07/ with the CME and agrees to comply with all terms and conditions of the PoA including those related to the monitoring and data control. The same has been confirmed from the review of agreement between the CPA implementers and the CME/22/. This agreement is also one of the eligibility criteria. Hence any CPA, which would be included in the PoA, shall follow the operation and management plan of the PoA as stated in the PoA-DD, signed agreement/22/and as specified in the management system/07/.

The system to avoid double counting and technical review of the potential CPAs of the PoA has been clearly indicated in the CME Management System/07/ specifically developed for the PoA. By reviewing this validation team confirms that the CME have the competencies to check the features of potential CPAs and can ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. Based on above, validation team confirms the compliance of following, in the management system of CME (in line with the requirement of §17 annex 3 of EB 65 /B04-5/):

- a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies;
- b) Records of arrangements for training and capacity development for personnel;/ 19/
- c) Procedures for technical review of inclusion of CPAs;
- d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA);
- e) Records and documentation control process for each CPA under the PoA;/18/
- f) Measures for continuous improvements of the PoA management system;

This CME Management System/07/ shall in due course of time as a part of continual improvement address any other relevant elements if required. This shall be checked again by the DOEs at the time of inclusion of any CPAs in the PoA in line with the requirement of §17 of annex 3 of EB 65/B04-5/.

Based on above it can be confirmed that the CME would be able to ensure that no double counting occurs. Also, since as each CPA is uniquely identified in the format of Small-scale hydro power programme, South Africa – CPA-01', the CME can check whether a CPA under the PoA is already a registered CDM project or CPA in another PoA from the UNFCCC website. In this regard CME at the time of inclusion will provide the GPS co-ordinates and Deceleration for the same.

Based on above validation team confirms to the requirement of the §6 (i) and § 15(c) of EB 55 annex 38.

3.6 Monitoring Plan

There is no sampling approach for the verification of the CPAs of the PoA. As per PoA-DD/03/, CME of the PoA opts for verification of the each CPA. Furthermore for the monitoring parameters to be opted by CPAs of the PoA, 100% data shall be monitored and no parameters shall be monitored on sampling approach. The same has been verified from the PoA-DD /03/.

The monitoring plan provides a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA. The system to avoid double counting has been indicated in the PoA-DD/03/ and CME Management system /07/. This would be done by NuPlanet (CME) through review of information provided by seller of hydro electrical systems (CPA implementer). Also, as each CPA will have a unique title and the hydro electrical systems will have unique serial number thus double counting can be avoided. This confirms to the requirement of the §6 (j) of EB 55 annex 38.

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The description provided in the PoA-DD on the operational and management arrangements were confirmed based on review of CME Management System/07/ and on-site interviews.

3.7 Baseline and monitoring methodology

3.7.1 Applicability of selected methodology

The compliance of the applied baseline and monitoring methodology/B02/ and /B03/ is a part of eligibility criteria as mentioned in the PoA-DD/03/ and g-CPA-DD/04/. The DOE shall check the same during inclusion of the CPA in the PoA. The assessment of the validation team (for the requirement to be checked during CPA inclusion) is summarised below:

Applicability of AMS-I.D. (version 17)

CRITERIA OF METHODOLOGY	JUSTIFICATION IN POA-DD/03/ AND G-CPA-DD	ASSESSMENT BY THE VALIDATION TEAM
<p>1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>a) Supplying electricity to a national or a regional grid; or</p> <p>b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</p>	<p>Applicable.</p> <p>All the CPAs that fall under the ambit of this PoA will be renewable energy generation units that use hydro technology. They will be either supplying electricity directly to a national or regional grid or to an identified consumer facility via a national/regional grid through a contractual arrangement such as wheeling.</p>	<p>It shall be checked during inclusion of the CPA that specific CPA comprises renewable electricity generation, by means of hydro electrical systems and supplies electricity to a national grid through a contractual arrangement such as PPA.</p>
<p>2. Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 2.</p>	<p>Not Applicable.</p>	<p>Not applicable as per the PoA-DD /03/ and g-CPA-DD /04/.</p>
<p>3. This methodology is applicable for 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).</p>	<p>Applicable.</p> <p>All the CPAs that fall under the ambit of this PoA will; either, involve the installation of 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); involve a capacity addition; a retrofit; or, a replacement.</p>	<p>It shall be checked during inclusion of the CPA that CPA either involves:</p> <p>(a) Installation of a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity; or</p> <p>(b) Involve a capacity addition.</p> <p>(c) Involve a retrofit of (an) existing plant(s);</p> <p>(d) Involve a replacement of (an) existing plant(s).</p>
<p>4. Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p>	<p>Applicable.</p> <p>The CPAs falling under the ambit of this PoA will involve</p>	<p>It shall be checked during inclusion of the CPA that CPA either involves.</p> <ul style="list-style-type: none"> an existing reservoir with no

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<ul style="list-style-type: none"> 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. 	<p>hydro power plants and may have reservoirs. In which case they will need to satisfy one of the three conditions specified.</p>	<p>change in the volume of reservoir;</p> <ul style="list-style-type: none"> 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; creation of 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.
<p>5. If the unit added has both renewable and 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 fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	<p>Applicable.</p> <p>All the CPAs that fall under the ambit of this PoA will have renewable components only and will be less than 15 MW (in terms of installed capacity).</p>	<p>It shall be checked during inclusion of the CPA that CPA involves only renewable energy component and overall capacity will be less than 15 MW.</p>
<p>6. Combined heat and power (co-generation) systems are not eligible under this category.</p>	<p>Not applicable.</p> <p>Any CPA under the PoA does not involve installation of co-generation systems.</p>	<p>Not applicable as per the PoA-DD/03/ and g-CPA-DD/04/.</p>
<p>7. In the case of project activities that involve the capacity 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.</p>	<p>Applicable.</p> <p>In case the independent activity involves the capacity addition, the added capacity will be lower than 15 MW and be physically distinct from the existing units.</p>	<p>It shall be checked during inclusion of the CPA that in case the specific CPA involves capacity addition the total capacity shall be lower than 15 MW and the units shall be physically distinct units.</p>
<p>8. 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.</p>	<p>In the case of CPAs that fall under the ambit of this PoA that involve retrofits or replacements, the total output of the retrofitted or replacement unit shall not exceed 15 MW.</p>	<p>It shall be checked during inclusion of the CPA that in case the specific CPA involves retrofit or replacements, the total capacity shall be lower than 15 MW.</p>

Based on above validation team confirms to the requirement of the §6 (f) of EB 55 annex 38

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3.7.2 CPA boundary

The boundary of the potential/future CPAs of the PoA has been assessed by considering information gathered from the site visit, interviews.

Validation team confirms that the identified boundary, the selected sources, and gases as documented in the PoA-DD/03/ are justified for the CPA; hence all sources and GHGs required by the methodology have been included within the project boundary.

Thus the spatial extent of the CPA boundary includes all power plants connected physically to the national grid of the respective country where the project will be located. All CPAs boundaries relevant with "NuPlanet Small Scale Hydropower PoA" will be implemented within the geographical boundary of respective country where the project will be located.

There is only one GHG involved in the project activity i.e., CO₂ (baseline emissions) from power plants serving the electricity grid. As per the PoA DD, there is possibility of use of diesel for emergencies internal use (on site) by the CPAs of the PoA and their project site and hence CME has considered this emission source in the PoA-DD and accordingly monitoring parameters has been included in section E.7.1 of the PoA-DD The CPAs of the PoA shall use small scale methodology AMS I. D. version 17. Furthermore validation team confirm that the CME has provided all methodological equation in section E.6.1 of the PoA DD /03/ to calculate emissions of CH₄ from the reservoir. While doing so the PP has correctly provided CapBL and ABL in section E.6.2 of the PoA DD /03/ and Cappj and APJ in section E.7.1 of the PoA DD /03/.

Validation team confirms that the identified boundary, the selected gases and sources as documented in the PoA-DD/03/ are justified for the future CPAs of the PoA and fully in line with the requirements set by the applied methodologies AMS-I.D. (version17)/B02/.

3.7.3 Baseline identification/Scenario

Validation team based on review of PoA DD /03/ confirms that in accordance with the applied methodology AMS-I.D. (version17)/B02/, the baseline scenario correctly listed as below:

	AMS-I.D. (VERSION17)
Baseline Scenario	a) The electricity delivered to the grid by the CPA would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid (§ 10 of the applied methodology). b) If the CPA is the capacity addition of hydro power plant, the baseline scenario is the continuation of the existing plant (§ 15 of the applied methodology).

The continued use of existing fossil fuel based plant or existing renewable plant have been identified as the likely baseline scenario. From above analysis, validation team confirms that the baseline determination is transparent and deemed reasonable.

- All the assumptions and data used by the project participants are listed in the PoA-DD/03/;
- Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- 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 CDM project activity.

The CME has justified the selection of base line scenario in line with the applied methodology and the same is deemed reasonable which was also conformed during the on site assessment and subsequent interview with the local stakeholders, CME and CPA implementer

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CME has clearly stated in the PoA-DD /03/ that baseline shall be established on each CPA and the identified baseline must be in accordance with the procedures provided in the approved methodology of AMS-I.D version 17.

A detailed description about baseline is provided in the first real case CPA/CPA/ validation report.

3.8 Additionality

3.8.1 Prior consideration of CDM

All CPAs to be included in the PoA will have a start date after 04/04/2012, that is, the date on which the validation of PoA commenced (Publication of PoA for GSC). Since the start date of the project will be after 04/04/2012, all the CPAs to be included in the PoA will be new project activities as per Annex 13, EB 62. As per clarifications offered by EB Vide § 3 of Annex 26, EB 60, since no CPAs will commence prior to the start date of validation of PoA, provisions of Annex 13, EB 62 do not apply to CPAs. In order to make the CPA transparent, the CPAs to be included in the PoA will clearly state the start date of the projects in conformity with Glossary or CDM terms (Ver 07) and furnish credible documentary evidence in support of the same.

3.8.2 Additionality of PoA

The description under the PoA-DD/03/ demonstrates the compliance of § 6 (e) of the annex 38 of EB 55 /B04-3/. The stepwise validation of the same is summarized below:

Relevant text of § 6(e) of annex 38 of EB 55	Assessment of the compliance
The proposed PoA is a voluntary coordinated action;	<p>Based on the description provided in the PoA-DD /03/ and the onsite visit and subsequent interviews with stakeholders and CME, validation team confirms that the proposed program is voluntary coordinated action by the CME.</p> <p>Furthermore review of regulation on the hydro-electric power projects, reveals that there is no mandate to implement such CPA (project) to CPA implementer and CME in the host country. Hence the proposed PoA is a voluntary coordinated action, checked and confirmed by the validation team.</p>
If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA;	<p>This § is relevant for the subject PoA under consideration. The relevant assessment of the investment barrier to demonstrate additionality, which is claimed for the substantiation of this paragraph, is explained in later part of this section.</p> <p>Additionality shall be demonstrated by each CPA of the PoA using criteria provided in the section E.5.1 of the POA DD /03/, additionality demonstration is also identified as one of the eligibility criteria for the inclusion of any CPA in the POA. Validation team confirms this in line with the requirements of PoA § 73 of EB 47 meeting report, which requires additionality is to be demonstrated either at the PoA level or at CPA level, for the subject PoA, CME opted to do on CPA level and hence acceptable to the validation team.</p>

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If the PoA is implementing a mandatory policy/regulation, this would/is not enforced;	This is not applicable for this PoA.
If mandatory a policy/regulation is enforced, the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation.	This is not applicable for this PoA.

The additionality of the programme has been presented in section A.4.3 of the PoA-DD /03/. The claim of the CME made in the PoA-DD has been assessed through document review, on-site observation and subsequent interviews.

Based on above validation team confirms to the requirement of the §6 (e) and § 15(a) of EB 55 annex 38.

Approaches of additionality indicated in the PoA-DD to demonstrate the additionality of each CPA

As the PoA applies the small scale methodology AMS I.D, therefore the additionality has been demonstrated using the guidance given in 'Attachment A to Appendix B' of the "Simplified modalities and procedures for small-scale CDM project activities", which is in line with requirements of § 9 of annex 3 of EB 65 /B04-5/.

The additionality arguments in the PoA-DD have been validated as follows:

A typical SSC-CPA to be included in this PoA will consist of the installation of the small scale hydropower plant in South Africa which includes both run of river & reservoir type hydro power plants utilising it for electrical energy generation. Where the projects generate electrical energy, the generation will be exported to national grid. Accordingly, the SSC-CPA under this PoA will use only AMS-I.D. methodology

CME has identified two approach(options) for demonstration of investment barrier(analysis) and other barriers (Access to finance) Thus, the additionality of all SSC-CPAs under this PoA will be demonstrated based on "Simplified modalities and procedures for small scale CDM project activities" (Annex 27, EB68) read with "Non-binding best practice examples to demonstrate additionality for SSC project activities" (Annex 34, EB 35), "Guidelines on the Assessment of Investment Analysis" (Annex 5, EB 62)

Option 1: Investment Analysis

3.8.3 Application of methodology / methodological tools

As per requirement, the SSC-CPA under this PoA will use only AMS-I.D. methodology as electricity generated from all CPA to be included will be exported to grid only.

Additionality of all SSC-CPAs under this PoA will be demonstrated based on "Simplified modalities and procedures for small scale CDM project activities" (Annex 27, EB 68) read with "Non-binding best practice examples to demonstrate additionality for SSC project activities" (Annex 34, EB 35), "Guidelines on the Assessment of Investment Analysis" (Annex 5, EB 62).

3.8.4 Appropriateness of Alternatives

All the CPAs to be included in this PoA will have only two alternatives, viz.

- The proposed project activity undertaken without being registered as a CDM project activity.
- Continuation of the current situation (no project activity or other alternatives undertaken).

In South Africa, there is no mandatory legislation which prohibits the implementation of hydroelectric power station either run –of-river or dam based.

Therefore, both the alternatives are credible and are in conformity with local regulations. Moreover, since approved Methodology AMS I.D prescribe the base line, as per paragraph 105 of VVM (01.2), no

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discussion on alternatives is necessary. In the above background, validation team confirms that the PoA is in conformity with §106 of VVM (01.2).

3.8.5 Appropriateness of investment Analysis

CME had provided a framework in the PoA DD /03/, for CPAs to demonstrate that the financial returns of the proposed CPAs within the POA are insufficient to justify the required investment (conformity to Paragraph 109 (b) of VVM 1.2). For demonstrating the financial unattractiveness of the CPAs within the POA, PP has chosen investment analysis and to demonstrate the unattractiveness of the project activity, had selected benchmark analysis. Validation team has assessed correctness of the chosen approach of investment analysis and noted that since there is revenue (from sell of electricity) other than benefits from CDM related income in the project, hence option I the simple cost analysis is not applicable and correctly not considered by the PP. Furthermore, the baseline scenario (electricity from Grid) does not involve investment and accordingly investment Comparison analysis cannot be applicable. Since in this instant case baseline is outside the direct control of the project developer (grid connected power) and hence, the choice of the project developer is restricted to “invest or not to invest”, the benchmark approach is most suited as per the latest version of Guidance 19 of Annex 5 of EB 62.

3.8.6 Appropriateness of Financial Indicator

The CME has chosen equity IRR as financial indicator. Equity IRR calculation is used to determine the return finally available from the project against total equity investment, hence it's a very important ratio, because it helps to investor to decide whether to go with the project or not. PP has proposed that the CPAs will be using post tax equity IRR as financial indicator for the project.

3.8.7 Appropriateness of Benchmark

The project developer has chosen Equity IRR to demonstrate the additionality of the project. Guidance 15 of the Guideline on the Assessment of Investment Analysis ver. 05 states that “If the benchmark is based on parameters that are standard in the market, the cost of equity should be determined either by: (a) selecting the values provided in Appendix A; or by (b) calculating the cost of equity using best financial practices, based on data sources which can be clearly validated by the DOE, while properly justifying all underlying factors”. Accordingly PP has considered the default values for the expected return on equity provided under Appendix of EB 62, Annex 5. The CPA falls under Group 1 project and the default value for return on equity for South Africa is 10.90%, accordingly PP has considered ROE of 10.90% as benchmark of the project. As the financial indicator are calculated by the PP is in real terms, hence, can be directly compared with the financial indicator.

Guidance on the Assessment of Investment Analysis (ver. 05 states, “In the cases of projects which could be developed by an entity other than the project participant the benchmark should be based on publicly available data sources which can be clearly validated by the DOE”. However, the latest version of the Guidance has removed the requirement relating to publicly available data sources which can be clearly validated by DOE, and replaced it by, “In the cases of projects which could be developed by an entity other than the project participant the benchmark should be based on parameters that are standard in the market. The DOE's validation of such benchmarks shall also include its opinion on whether a company-specific benchmark or a benchmark based on parameters that are standard in the market is suitable in the context of the underlying project activity”.

The validation therefore concludes that the benchmark identified for the CPAs of the PoA is suitable for the financial indicator selected and it is reasonable to assume that the investment would not have taken place at a return lower than the benchmark. In the above background, validation team concludes that the selected benchmark is appropriate and hence acceptable to the validation team.

3.8.8 Validation of Input Parameters

The PoA will use commonly available hydroelectricity related technology that transforms the kinetic energy in water flows into electricity. The technology will either use diverted river flows or water flowing from dams to drive turbines. The turbines will drive generators that feed electricity into the grid via substation and transmission lines.

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PoA has, therefore, standardised the input parameters and the documentary evidence to be submitted in support of each of the input parameters. The acceptable source for input parameters has been determined in the PoA-DD and leaves no scope for the projects to use alternative sources. Besides, while validating each project seeking registration under the PoA, the DOE will cross check the input parameters with available evidence, third-party or publicly available sources and with other parameters located in the same area and set up around the same time. In case the input parameters is sourced from FSR, the validation team would cross check the information contained in the PoA-DD vis-a-vis the FSR and based on its local and sectoral expertise, ensure the input parameters are valid and applicable at the time of investment decision. PoA incorporates an IRR calculation template. The template also clearly states the input parameters (requiring manual entry) used and what are calculations (which the system automatically does once the input parameters are entered). All the cells are linked appropriately and with very little manual intervention, the template will yield the financial indicator. The validation team will check the calculations and ensure the CPA conforms to guidance given vide paragraph 88 and 113 of VVM (01.2).

CME has used standardised Excel sheet to check the additionality of 1st CPA. The parameters to calculate the IRR benchmark are in line with the EB 62 Annex 5 "Guidelines on the assessment of Investment Analysis" (Version 05) as detailed in the table below:

EB Guideline – EB 62 Annex 5	PoA	POA Compliance with Guideline – validation	1st CPA compliance with Guideline - validation
Guidance 3 Period of Assessment	Will be Applicable on CPA level.	The assessment period will not be limited to the crediting period of project activity. Technical lifetime specified either by feasibility study work, third party opinion and /or equipment supplier can be considered as appropriate and conservative. Further the guideline says "In general a minimum period of 10 years and a maximum of 20 years will be appropriate".	1st CPA has assessment period of 20 years based on the lifetime certificate of ANDRITZ HYDRO GmbH /23/. The supplier has clearly mentioned that with sufficient maintenance the major components of the plant i.e. turbine and generators has life of 20 years.
Guidance 4 Salvage Value	Will be Applicable on CPA level.	The IRR of the CPA will be calculated for a period of 20 years, hence assets will be depreciated to its full, as the technical life time of the project is 20 years. As a conservative approach and as best international accounting practice Salvage value in the range of 5 to 10% of the project cost will be considered.	The IRR is computed for a period of 20 years and salvage value of 10% of project cost is considered. The salvage value is adjusted to the CPI Inflation of Republic of South Africa and converted in to nominal value.
Guidance 5 Depreciation and other non-cash items	Depreciation treatment is in line with the taxation laws of the Republic of South	Depreciation in CPA will be calculated either from Tax legislation, South African Revenue	Depreciation rate of 50%: 30% and 20% is considered for IRR calculation. The treatment is not only in line with the taxation laws

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	Africa.	Service and / or third party opinion.	of the Republic of South Africa but also as per the best international accounting practice.
Guidance 6 Time of Assessment	All the data used for calculation was available before start date of CPA	It can be assessed at the time of inclusion of CPAs. It can be based on the information from project plan, feasibility study, and/ or contracts.	The IRR calculation of the 1st CPA is based on data available at time of the creation of PoA documentation (04/04/2012) for the financial calculations supporting the PoA documentation), the beginning of the validation. The 1st CPA starting date is the expected date of placing order 01/05/2013.
Guidance 7 Cessation of implementation.	Applicable, if relevant for the project.	This can be assessed only at the time of inclusion of CPAs.	Not Applicable

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Guidance 8 spreadsheet calculation	A standardised spreadsheet to be used for all CPAs	This can be assessed only at the time of inclusion of CPAs.	Final financial sheet/24/ corresponding to 1st CPA-DD /04/ contain all the information related to investment analysis and ER calculation. DOE hereby confirm that the results derived from the sheet can be reproduced.
Guidance 9 Cost of Financing for Project IRR calculation	The cost of financing expenditure (i.e. loan repayment and interest) should not be included in the calculation of Project IRR	This can be assessed only at the time of inclusion of CPAs.	As Equity IRR has been used as financial indicator for the first CPA and has been proposed to be utilized by all future CPAs of the PoA, hence project IRR calculation is not applicable.
Guidance 10 Calculation of equity IRR	In the calculation of equity IRR only the portion of investment costs which is financed by equity should be considered as the net cash outflow, the portion of the investment costs Which is financed by debt should not be considered a cash outflow.	This can be assessed only at the time of inclusion of CPAs. Prime interest rate by host country bank can be considered as cost of debt while the financing from debt (i.e. Debt Equity ratio) will be based on the information from potential debt providers and the CPA implementer.	DOE has verified the final spread sheet of financial /24/ and confirm that the portion of investment cost which is financed by equity is considered for calculation of Equity IRR.
Guidance 11 Interest and Income tax treatment in Pre-tax and Post tax IRR calculation.	Taxation is considered as per the taxation laws of the Republic of South Africa.	This can be assessed only at the time of inclusion of CPAs. It can be based on the information from either the project plan, feasibility study, and/ or contracts.	DOE has verified the final spread sheet of financial /24/ and confirm that the taxation treatment by the 1st CPA is as per the taxation laws of the Republic of South Africa.
Guidance 12 to 18 Benchmark	The benchmark can be “default values for the expected return on equity” provided by EB, benchmark provided by the Republic of South Africa for renewable energy projects.	All the CPAs will calculate Post Tax Equity IRR as financial indicator and “default values for the expected return on equity” provided by EB’s latest guideline, for Republic of South Africa for renewable energy projects will be used as benchmark.	CPA has used the default value for the expected return on equity” provided by EB for South Africa for Group I projects. Default value of 10.90% is considered as benchmark for the equity IRR. Further DOE confirms that the equity IRR is calculated in real terms hence, it is directly comparable with the default value provided by EB.
Guidance 19 Investment Comparison Analysis and benchmark Analysis.	As the alternative to the project activity is the supply of electricity from a grid, hence benchmark approach is considered appropriate.	The benchmark approach is applicable as per the guideline.	The benchmark approach is applicable as per the guideline.
Guidance 20 choice of variables for	Sensitivity analysis will be carried out on the following parameter:	This can be assessed only at the time of inclusion of CPAs.	The selection of the parameters included in the sensitivity analysis was validated against the

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sensitivity analysis	Electricity Tariff Capex Operation and Maintenance Cost Net Electricity Generation		<p>"Guidance on the Assessment of Investment Analysis" defining that variables that constitute more than 20% of either total project costs or total project revenues should be subjected to the sensitivity analysis.</p> <p>The selected parameters (Electricity Tariff, CAPEX, Operation & Maintenance Cost, Net electricity generated) are in line with "Guidance on the Assessment of Investment Analysis" as they are the key cost factors.</p> <p>The DOE has assessed the financial parameters and the variations of all key parameters and confirms the correctness of the sensitivity analysis calculations.</p> <p>In addition to the sensitivity analysis with the fixed +/-10% variations, the first CPA contains the "turning points", the % changes, where the IRR reaches the benchmark and a description of the likelihood of this happening.</p>
Guidance 21 range of variation in sensitivity analysis.	The sensitivity analysis covers a range of $\pm 10\%$.	This can be assessed only at the time of inclusion of CPAs.	The 1st CPA contains fixed $\pm 10\%$ variation. Further the turning point the % changes at which the IRR reaches the benchmark.

3.8.9 Accounting principles and Arithmetical Accuracy

The worksheet template is fully linked and requires very little manual intervention. Since cells are linked, the template ensures arithmetical accuracy of calculations also. In the above background, the validation team concludes that the accounting principles have been taken care of and the template assures arithmetical accuracy. Therefore, the PoA project activities would conform to the requirements of paragraph 111 of VVM (Ver. 01.2)

3.8.10 Sensitivity Analysis

CPAs of the PoA project activities would be tested for the robustness of the conclusion, viz., that the project activity is not economically or financially attractive by subjecting critical parameters to reasonable variations. Accordingly, the following parameters will be subjected to sensitivity analysis:

- a) Project cost
- b) O&M cost
- c) Project revenue
- d) Power tariff

All the costs reckoned above will constitute 20% of the project cost/total revenue. Depending on the projects, tariff, manpower cost or a few other costs will also be subjected to sensitivity analysis. All the parameters will be subjected to a 10% variation on either side in conformity with guidance 21 of Annex 5, EB62. Template contains facility to check the sensitivity analysis results. The validation team is,

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therefore, convinced that the sensitivity analysis conforms to Guidance 20 and 21 of Annex 5, EB 62 and paragraph 111 of VVM (01.2).

3.8.11 Conclusion

The performance of the template (PoA-DD, worksheet, gCPA-DD) has been checked for the real case CPA submitted along with the PoA-DD. The financial spreadsheet calculation of the real case CPA has also been presented, which confirms that IRR of project activity is less than the benchmark. In the above background, validation team is convinced that the proposed methodology for evaluating the additionality of the PoA project activities is appropriate and valid.

Option 2: Other barriers (Access to finance)

3.8.12 Other Barriers

There is another option (i.e. 2) as per the PoA DD, in this option CPAs of the PoA may opt to demonstrate additionality through other barriers namely access to finance. The approach and evidence referred in the PoA DD has been checked by the validation team and found the same in line with requirement of 1. Guidelines on the demonstration of additionality of small-scale project activities, version 09.0, EB 68 (Annex 27) /B04-8/ read with annex 13 of EB 50 and hence acceptable to the validation team. Emission reduction from a typical CPA of the PoA

CCL conducted assessment of baseline emissions, project emissions, leakage, and emission reductions. The parameters and equations presented in the PoA-DD, as well as other applicable documents, have been compared with the information and equipment stipulated in the methodology and respective tools. The assumptions and data used to determine the emission reductions are described in the PoA-DD /03/ and all the sources have been checked and confirmed by validation team. Based on the reviewed information, it can be confirmed that the sources used are correctly quoted and interpreted in the PoA-DD /03/. The values in the PoA-DD /03/ are considered to be reasonable based on the documentation and references reviewed, as well as, the result of the interviews. The baseline methodology has been correctly applied according to the requirements. Electricity which will be produced by activities under the CPA is supplied to the national grid of the RSA.

3.9 Emission reduction from a typical CPA of the PoA

a) Baseline Emissions

As per the methodology AMS-I.D. (version17)/B02/, for CPA which will supply electricity to national grid of RSA baseline emissions for the Greenfields site are calculated as follows:

$$BE_y = EG_{BL,y} \cdot EF_{CO_2,grid,y}$$

Where:

BE_y = Baseline emissions in year y (tCO₂)

$EG_{BL,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{CO_2,grid,y}$ = CO₂ emission factor of the grid in year y (tCO₂/MWh)

In accordance with the methodology AMS-I.D. (version 17)/B02/and same with $EF_{CO_2,grid,y}$.

Calculation of $EG_{BL,y}$

Each independent activity under the PoA envisages either:

- **Option 1:** Installation of hydro electrical systems at the site where there was no hydro electrical system operating prior to the implementation of the activity; or

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- **Option 2:** Retrofit/Capacity addition¹.

For **Option 2**, $EG_{BL,y}$ is calculated as follows:

According to § 15 of AMS-I.D. (version 17)/B02/: *“In the case of wind, solar, wave or tidal power plants, it is assumed that the addition of new capacity or retrofitting of existing unit to increase capacity does not significantly affect the electricity generated by existing plant(s) or unit(s). In this case, the electricity produced by the added power plant(s) or unit(s) could be directly metered and used to determine $EG_{BL,y}$ provided that the electricity produced by the added power plant(s) or unit(s) addition is separately and directly metered”*.

Since the electricity produced by the added hydro electrical systems will be separately and directly metered, $EG_{BL,y}$ for combination of *Option 2 and Scenario (b)* is also calculated using **equation** provided above.

Calculation of Grid Emission Factor ($EF_{CO_2, grid,y}$)

As per the PoA DD /03/, CO2 emission factor of the grid ($EF_{CO_2, grid,y}$) will be calculated according to Tool to calculate the emission factor for an electricity system, version 02.2.1 /B03/, and by using data obtained from state-owned company Eskom which is the only company in the South Africa in charge of generation, transmission and distribution of power to end-users. The combined margin emission factor (CM) of the electricity system consists of the combination of operating margin (OM) and build margin (BM). As per the PoA-DD /03/, Grid emission factor will be calculated at CPA level and will be fixed ex-ante for first crediting period for each CPA. Validation team confirmed that emission factor calculation guidance, algorithm and formulae are in accordance with latest tool to calculate emission factor of an electricity system, ver. 2.2.1 and in line with methodology requirements. Regarding the data and its source, since the emission factor shall be calculated at CPA level, the consideration of the latest version of data source and vintage at the time of CPA inclusion is deemed appropriate. Emission factor calculation also confirmed with real case CPA1, wherein emission factor calculated as per the guidance provided in Annex. 3 of the Po-DD/ 03/ and generic CPA-DD /04/

b) Project Emissions

As per the PoA DD, there is possibility of use of diesel for emergencies internal use (on site) by the CPAs of the PoA and their project site and hence CME has considered this emission source in the PoA-DD and accordingly monitoring parameters has been included in section E.7.1 of the PoA-DD

However for CPAs that involve the development of new reservoirs then project emissions have to be considered following the procedure described in the most recent version of ACM0002 as per applied methodology. Validation team confirm that the CME has provided all methodological equation in section E.6.1 of the PoA DD /03/ to calculate emissions of CH4 from the reservoir. While doing so PP has correctly provided CapBL and ABL in section E.6.2 of the PoA DD /03/ and CapPj and APJ in section E.7.1 of the PoA DD /03/.

c) Leakage

As confirmed energy generation equipment used in the future CPAs shall not be transferred from other site, hence leakage is not considered according to applied methodology.

¹A capacity addition envisages an increase in the installed power generation capacity of an existing hydro electrical system through: the installation of a new hydro electrical system beside the existing hydro electrical system; or the installation of new hydro electrical system, additional to the existing hydro electrical system. The existing hydro electrical system continues to operate after the implementation of the activity, furthermore the addition of the new capacity does not significantly affect the electricity generation by the existing hydro electrical system and the electricity produced by the added hydro electrical system could be directly and separately measured.

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d) Emission Reduction

Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \quad (5)$$

Where:

ER_y = Emission reductions in year y (tCO₂/y)

BE_y = Baseline emissions in year y (tCO₂/y)

PE_y = Project emissions in year y (tCO₂/y)

LE_y = Leakage emissions in year y (tCO₂/y)

In summary, the calculation of emission reductions was correctly demonstrated by the PP according to the methodology AMS-I.D (version17)/B02/, its tool "Tool to calculate the emission factor for an electricity system (version 02.2.1) /B03/".

Validation team based on the review of PoA-DD/03/ confirms that the formulae are correctly presented for the determination of emission reductions at CPA level. The parameters and equations presented in the PoA-DD /03/, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has also been made to ensure consistency between all the formulae presented in the PoA-DD/03/ and calculation files (for the real case CPA DD), methodology AMS-I. D. (Version 17).

3.10 Monitoring Plan of a typical CPA

The monitoring plan presented in the PoA-DD/03/ and g-CPA-DD/04/ complies with the requirements of the applicable methodology. The validation team has checked all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The validation team through document review and interviews with the relevant personnel has reviewed the procedures. The information provided has allowed the validation team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the CME of the PoA and the CPA implementer.

The management system document/07/ of the CME provide sufficient information, which forms the basis of confirmation by the validation team on the issues related but not limited to the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the programme. Therefore, the CME and/or CPA implementer(s) will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified. This confirms to the requirement of the §6 (j) of EB 55 annex 38.

3.10.1 Parameters determined ex-ante

Each CPA under the PoA will adopt the ex-ante calculation of emission factor of the grid. The parameters applied in the calculation of combined margin emission factor (EF_{grid,CM,y}) will be validated by the validation team based on the "Tool to calculate the emission factor for an electricity system/ Version 02.2.1" /B03/. CPA DD shall /04/ has captured all parameters related the ex-ante calculation of emission factor of the grid.

Other parameters that are to be reported ex-ante in the CPA DD /04/ are:

- (ii) Installed capacity of the hydro power plant before the implementation of the project activity. (Cap_{PJ}).
- (iii) Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²). (A_{BL})
- (iv) Default emission factor for emissions from reservoirs. (EF_{RES})
- (v) Annual average historical net electricity generation delivered to the grid by the existing renewable energy plant that was operated at the project site prior to the implementation of the project activity. ($EG_{historical}$)

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- (vi) Standard deviation of the annual average historical net electricity generation delivered to the grid by the existing renewable energy plant that was operated at the project site prior to the implementation of the project activity ($\sigma_{\text{historical}}$)
- (vii) Point in time when the existing equipment would need to be replaced in the absence of the project activity. ($\text{Date}_{\text{BaselineRetrofit}}$)

3.10.2 Parameters determined ex-post

According to the PoA-DD Section E.7, the generic CPA-DD & the real-case CPA-DD Section B.6, 3 major parameter are required to be monitored, namely:

- (i) Net electricity supplied to the national grid by the proposed hydropower plant (EGBL, y);
Other parameters that are to be monitored ex-post are:
- (ii) Installed capacity of the hydro power plant after the implementation of the project activity (CapBL).
- (iii) Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (APJ)
- iv) Quantity of fossil fuel consumed by the project activity in year, y ($\text{FC}_{i,y}$)
- (v) Net calorific value of fossil fuel in year, y ($\text{NCV}_{i,y}$)
- (vi) Emission factor of fossil fuel in year, y ($\text{EF}_{\text{CO}_2,i,y}$)
- (vii) Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year one. (TEG_y)

The parameters to be monitored have been described in the monitoring plan. EGBL, y will be directly measured by the meter (bi-directional meters) systems. The monitoring frequency of EGBL, y is continuous monitoring, hourly measurement and at least monthly recording; the validation team considers that the monitoring parameters are correctly demonstrated in the PoA DD /03/ and meet the requirements of the applied monitoring methodology AMS-I.D./Version 17.

3.10.3 Monitoring and reporting system and quality assurance

The operational and management structure of the CME in context of the PoA has been clearly described in the PoA-DD /03/ and checked from the review of CME Management System document /07/ provided by the CME. The responsibilities and institutional arrangements for data collection and archiving have been clearly provided in the same document /07/.

Monitoring structure for the project activity is comprehensively detailed in the PoA-DD/03/ including description of the responsibility, procedure reference, equipment details, calibration frequency, and maintenance and archiving of the records is indicated. By reviewing the monitoring procedure and requirements provided in CME Management System/07/ for the PoA and interview with the PPs, validation team confirms that the monitoring arrangements described in the monitoring plan are feasible within the PoA-DD/03/, and the means of implementation of the monitoring plan is sufficient to ensure the emission reductions achieved by the PoA can be reported ex post and verified.

3.11 Environmental Impacts

It has been indicated in the PoA-DD/03/, that the environmental analysis shall be done at the individual CPA level. This is deemed appropriate in the context of the CPAs of the PoA.

In South Africa, Greenfield plants will require an EIA and it was confirmed with relevant host country guidelines,

(No. R. 385, 21 April 2006 REGULATIONS IN TERMS OF CHAPTER 5 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, and sub-regulations R387 and R386.)/25/, which govern impact assessments.

CPA 1 is greenfield plant and EIA is required for this project and project has been issued environmental authorization to proceed by Free State Province's Department of Economic Development, Tourism and Environmental Affairs (Authorisation Register Number EMB/IK, IM, 4/07/93- dated 09/12/2009).

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Validation team can confirm that for green field plant, EIA will be required but for capacity addition, retrofit and replacement, to date no requirements are available by host country. If in future there is a requirement for conduction of EIA, it shall be done at CPA level according to prevalent applicable host country requirements at the time of CPA inclusion.

3.12 Local stakeholders consultation

It has been indicated in the PoA-DD/03/, that the local stakeholder consultation shall be done at the CPA level. This is deemed appropriate in the context of the PoA as CPAs under this PoA will be located in different locations with varying local conditions it is appropriate that comments are invited at CPA level. This will ensure that the PoA supports sustainable development appropriately in the CPA locality.

Approach adopted by CME that local stakeholders' consultation will be conducted at CPA level found to be appropriate by validation team.

4.0 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PoA-DD /01/ (dated 24/03/2012), g-CPA-DD/01/ and real-case CPA-DD (dated 24/03/2012), were made publicly available on UNFCCC's website (<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/IKNA11XGI879ERK1P5YCXBC75EONJ/view.html>) and parties, stakeholders and NGOs were through the CDM website invited to provide comments during a 30 days period from 04/04/2012 to 03/05/2012, where no comment was received.

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APPENDIX A

VALIDATION PROTOCOL FOR PROGRAMME OF ACTIVITIES NUPLANET SMALL SCALE HYDROPOWER PoA REPORT No. CCL0038/HPSAPP/19082011

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Table 1: Conformity of CDM Programme of Activities

CHECKLIST TOPIC / QUESTION	Ref.	Validation Team Comments	Draft concl.	Final concl.
A. GENERAL DESCRIPTION OF CDM PROGRAMME OF ACTIVITIES (POA)				
A.1. Title of the CDM programme of activities (PoA)				
A.1.1. Does the title of the PoA clearly enable to identify the unique CDM programme of activities?	/01/	The title “NuPlanet Small Scale Hydropower PoA”, as stated in Section A.1 of the PoA-DD, clearly enables to identify the unique CDM programme of activities. The same was verified from the UNFCCC-website. However the Host Parties have not confirmed it. Hence, a CAR has been raised. CAR 1: Letters of Approval from the DNAs of nine (9) Host Countries (as mentioned in Section A.4.1.1. of the PoA-DD) have not been submitted to DOE for validation.	CAR-1	OK
A.1.2. Are current version number and the date of document completion given in section A.1 of the PoA-DD?	/01/	Yes, as stated in Section A.1 of the PoA-DD, the version number is 1.0 and the date is 24 th of March 2012. However the date-format as presented is not in the standard format DD/MM/YYYY. Hence, a CAR has been raised. CAR 2: In Section A.1 of the PoA-DD, the date has not been presented according to the standard format, i.e. DD/MM/YY.	CAR-2	OK
A.1.3. Is this consistent with the time line of the programme’s history?	/01/	Yes, the date of document completion as stated in Section A.1 of the PoA-DD is in line with the time-line of the PoA’s history.	OK	OK
A.2. Description of the programme of activities				
A.2.1. Is the description delivering a transparent overview of the general operating and implementing framework of the PoA?	/01/	Yes, it has been clearly described that: <ul style="list-style-type: none"> - NuPlanet Project Development (Pty) Ltd will be the coordinating/managing entity of the PoA. - The expected Host Parties are: Angola, Democratic Republic of Congo, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. 	CAR-3	OK

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		<p>However the expected Host Parties have not been listed in the table in Section A.3. of the PoA-DD. Hence a CAR has been raised.</p> <p>CAR 3: The table in Section A.3. of the PoA-DD is not complete, e.g. it does not include all expected Host Parties.</p>			
A.2.2.	Is the policy/measure or stated goal of the PoA clearly and unambiguously presented?	/01/	<p>Yes, as stated in Section A.2. of the PoA-DD, the PoA's policy/measure or goal is to support the reduction of GHG emissions by displacing electricity from the SAPP, which is produced mainly through fossil-fuel based generation.</p>	OK	OK
A.2.3.	Is there a valid confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity?	/01/	<p>In Section A.2. and A.4.3. of the PoA-DD, the CME confirms that this PoA is a voluntary action. However evidence to substantiate this statement has not been submitted to the DOE for validation. Hence a CAR has been raised.</p> <p>CAR 4: Evidence to substantiate the fact that the PoA is a voluntary action has not been submitted to the DOE for validation.</p>	CAR 4	OK
A.2.4.	Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?	/01/	<p>No, the description of the technology to be applied does not provide sufficient and transparent input for evaluating its impact on the greenhouse gas balance. Hence a CL has been raised.</p> <p>CL 1: The project participant is requested to clarify what the impact of the technology to be employed is on the greenhouse gas balance.</p>	CL 1	OK
A.2.5.	Is the brief explanation how the programme will reduce greenhouse gas emission transparent and suitable?	/01/	<p>Depends on the closure of CL 1 in section A.2.4. above.</p>	Refer CL 1	OK
A.3. Coordinating/managing entity and participants of CDM-PoA					
A.3.1.	Is the form required for the indication of project participants correctly	/01/	<p>In Section A.3. of the PoA-DD, the project participants have been indicated, including the entity which communicates with the Board. However it has not been made clear whether or not the project</p>	CAR 5	OK

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	applied?		participant is a private or a public entity. Hence a CAR has been raised. CAR 5: In section A.3 of the PoA-DD a clear description whether the party involved is a private or a public entity has not been provided.		
A.3.2.	Is the participation of the listed entities or Parties in the PoA confirmed by each one of them?		Depending on the closure of CAR 1.	Refer CAR 1	OK
A.3.3.	Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	/01/	No, the information on the coordinating/managing entity and participants as provided in section A.3. of the PoA-DD is not consistent with the information provided in Annex 1 of the PoA-DD. Hence a CAR is raised. CAR 6: The information on the coordinating/managing entity as provided in section A.3. of the PoA-DD and in its Annex 1 is not consistent.	CAR 6	OK
A.3.4.	Is it evident that the coordinating or managing entity of the PoA is the entity which communicates with the Executive Board (EB)?	/01/	Yes, it has been clearly stated in Section A.3. of the PoA-DD that the coordinating/managing entity of the PoA is the same as the entity communicating with The Board.	OK	OK
A.4. Technical description of the CDM programme of activities					
A.4.1. Location of the programme of activities					
A.4.1.1.	Does the information provided on the location of the programme allow for a clear definition identification of the boundary for the PoA in terms of a geographical area, within which all CPAs included in this PoA will be implemented?	/01/	As stated in Section A.4.1.2. of the PoA-DD, the PoA's boundary has been defined as the internationally recognised borders of the following countries, in which the PoA is located: Angola, Democratic Republic of Congo, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe.	OK	OK
A.4.1.2.	Is the consideration of all applicable national and/or	/01/	It has not been described that all applicable national and/or sectoral policies and regulation within the PoA's boundary have been taken into	CAR 7	OK

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<p>sectoral policies and regulations of each host country within the boundary evident and substantiated?</p>		<p>consideration when defining the PoA's boundary in Section A.4.1.2. of the PoA-DD. Hence a CAR has been raised.</p> <p>CAR 7: It is not evident whether all applicable national and/or sectoral policies and regulations of each Host Country within the PoA's boundary have been taken into consideration.</p>		
<p>A.4.1.3. Is/are the Host Party (ies) stated?</p>	/01/	<p>Yes, as per Section A.4.1.1. of the PoA-DD the expected Host Parties, i.e. Angola, Democratic Republic of Congo, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe have been identified.</p> <p>However this has not been confirmed as the letters of Approval from the DNAs of these expected Host Countries have not been submitted to DoE for validation. Hence refer to CAR 1</p> <p>Depends on the closure of CAR 1 in section A.1.1 above.</p>	Refer CAR 1	OK
<p>A.4.2. Description of a typical CDM programme activity (CPA)</p>				
<p>A.4.2.1. Is it unambiguously stated which technology or measures are to be employed by the CPA?</p>	/01/	<p>Yes, in Section A.4.2.1. It has been unambiguously stated that the PoA will use commonly available hydroelectricity related technology that transforms the kinetic energy in water flows into electricity.</p>	OK	OK
<p>A.4.2.2. Is the type and category of project activities correctly identified and indicated?</p>	/01/	<p>The PoA-DD does not clearly describe the type and category of the CPAs that fall under the PoA. Hence a CL has been raised.</p> <p>CL 2: In Section A.4.2.1 of the PoA-DD, the applicable type and category of the proposed PoA has not been mentioned.</p>	CL 2	OK
<p>A.4.2.3. Does the technical design of the project activity reflect current good practices?</p>	/01/	<p>The PoA envisages using renewable energy technologies to generate electricity. Production of electricity by renewable energy technologies in the region is a good practice.</p>	OK	OK
<p>A.4.2.4. Does the implementation of</p>	/01/	<p>In Section A.4.2.1. of the PoA-DD it has not been described if transfer</p>	CL 3	OK

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<p>the project activity require any technology transfer from Annex-I-countries to the host country (ies)?</p>		<p>from an Annex-I-country to the host country of environmentally safe and sound technology, and know-how to be used, is required and if so how this technology-transfer takes place. Hence a CL has been raised.</p> <p>CL 3: The project participant is requested to describe and clarify in section A.4.2.1. of the PoA-DD, whether or not technology transfer takes place, how the technology transfer would take place and what technology needs to be transferred from (an) Annex-I-country/ies to the Host Country/ies in case applicable.</p>		
<p>A.4.2.5. Is the technology implemented by the project activity environmentally safe?</p>	/01/	<p>Yes, the technology implemented by the project activity and as described in Section A.4.2.1. is environmentally safe.</p>	OK	OK
<p>A.4.2.6. Is the information provided in compliance with actual situation or planning?</p>	/01/	<p>It has been observed during a site-inspection that the information regarding the technology to be employed by the PoA is in compliance with the actual situation and planning.</p>	OK	OK
<p>A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?</p>	/01/	<p>Yes, the technology implemented by the project activity and as described in Section A.4.2.1. can be labelled state of the art technology and results in a better environmental performance than any commonly used technology in the host country.</p>	OK	OK
<p>A.4.2.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?</p>	/01/	<p>There is no information provided on training and maintenance efforts required to carry out the project as per schedule. Hence a CL is raised.</p> <p>CL 4: The project participant is requested to clearly specify in the PoA-DD what the training- and maintenance efforts-requirements are in order to be able to carry out the project as per schedule during the project period.</p>	CL4	OK
<p>A.4.2.9. Is information available on the demand and requirements for training and maintenance?</p>	/01/	<p>Depends on the closure of CL 4 in section A.4.2.8 above.</p>	Refer CL4	OK

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<p>A.4.2.10. Does the PoA-DD provide clearly and unambiguously eligibility criteria for the inclusion of a CPA into the PoA? (Annex 3 of EB 65 §14)</p>	<p>/01/</p>	<p>Section A.4.2.2. of the PoA-DD provides a list of eligibility criteria for the inclusion of CPAs in accordance with Annex 3 of EB65, paragraph 14.</p> <p>The description of requirement (c) in Section A.4.2.2 of the PoA-DD does not match the requirement as provided in paragraph 14 of this Annex.</p> <p>Furthermore, according to paragraph 15 of the same Annex, the eligibility criteria must be verifiable, hence the means/processes applied to assess whether or not a potential CPA meets all the criteria, as set out in Section A.4.2.2. of the PoA-DD, must be described and verifiable.</p> <p>Hence two CARs have been raised:</p> <p>CAR 8: In Section A.4.2.2 of the PoA-DD, the eligibility criteria for inclusion of a CPA in the PoA have been described. However the description of requirement (c) in section A.4.2.2 of the PoA-DD does not match the requirement as provided in the “Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities (Version 01.0)” EB 65 Annex 3.</p> <p>CAR 9: The project participant is requested to describe the means/processed applied for assessing whether or not a potential CPA meets the eligibility criteria as per Section A.4.2.2. of the PoA-DD and may be included under the PoA accordingly.</p>	<p>CAR 8 & CAR 9</p>	<p>OK</p>
<p>A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality of the PoA as a whole)</p>				
<p>A.4.3.1. Is it evident and clearly documented that the proposed PoA is a voluntary coordinated action?</p>	<p>/01/</p>	<p>Depends on the closure of CAR 4 in section A.2.3 above.</p>	<p>Refer CAR 4</p>	<p>OK</p>
<p>A.4.3.2. Is it evident and substantiated that this voluntary coordinated action</p>	<p>/01/</p>	<p>No, in Section A.4.3 of the PoA-DD, it has not been substantiated clearly that this voluntary coordinated action would not be implemented in the absence of the PoA.</p>	<p>CL 5 & CL 6</p>	<p>OK</p>

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<p>would not be implemented in the absence of the PoA?</p>		<p>Moreover, in Sections E.5.1. and E.5.2. of the PoA-DD the approach for proving additionality has not been clearly described and justified.</p> <p>Hence two CLs have been raised:</p> <p>CL 5: The project participant is requested to substantiate in Section A.4.3. of the PoA-DD that the implementation of the PoA is a voluntary action which would not otherwise have been implemented.</p> <p>CL 6: The project participant is requested to clarify the following issues, which are not clearly defined in Sections A.4.3. and E.5:</p> <ul style="list-style-type: none"> • whether the additionality would be proven at PoA level or CPA level • for small-scale CPAs, whether demonstration of additionality will be done using the tool for demonstration and assessment of additionality (EB65 Annex 21, version 06) or that additionality will be demonstrated due to at least one of the barriers as listed in Attachment A of Appendix B of the “Simplified modalities and procedures for small-scale CDM project activities” • thus it is not clear whether the eligibility criteria for inclusion of a potential CPA have been derived on requirements stated in paragraph 9 of Annex 3 to EB65 		
<p>A.4.3.3. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation this would not be enforced otherwise?</p>	/01/	<p>N/A, as there is no mandatory policy/regulation which would drive the development of CPAs falling under the umbrella of the PoA.</p>	N/A	
<p>A.4.3.4. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation that is enforced the PoA will lead to a greater</p>	/01/	<p>N/A, refer section A.4.3.3. above</p>	N/A	

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level of enforcement?				
A.4.4. Operational, management and monitoring plan for the programme of activities (PoA)				
A.4.4.1. Is there a clear and transparent description of the operational and management arrangements established by the coordinating/managing entity?	/01/ /B04/	<p>During the site-visit the CME's internal management system has been made available and it has been confirmed that it provides for the requirements laid down under Annex 3 of EB65, paragraph 17. However a copy of this management system has not been provided, hence a CL is raised.</p> <p>CL 7: A copy of the CME's internal management system for ensuring that potential CPAs meet all requirements and eligibility criteria before inclusion in the registered PoA has not been submitted to the DOE for validation.</p>	CL-7	OK
A.4.4.2. Is there a record keeping system for each CPA under the PoA?	/01/ /B04/	<p>Yes, as described in section A.4.4.1. of the PoA-DD a record keeping system in the form of a PoA monitoring database will be operational, allowing unique identification of each CPA.</p> <p>However, depends on the closure of CL 7 in section A.4.4.1. above.</p>	Refer CL-7	OK
A.4.4.3. Is there a system or procedure to avoid double accounting, i.e. to avoid that an included CPA under this PoA already is a registered CDM project or CPA in another PoA?	/01/ /B04/	<p>Yes, as described in section A.4.4.1. of the PoA-DD a procedure to avoid double accounting for each CPA under the PoA has been provided for.</p> <p>However, depends on the closure of CL 7 in section A.4.4.1. above.</p>	Refer CL-7	OK
A.4.4.4. Is there a system or procedure to detect whether a CPA to be included in the PoA is not a de-bundled component of another CPA or CDM project?	/01/ /B04/	<p>Yes, as described in section A.4.4.1. of the PoA-DD this forms part of the eligibility assessment process.</p> <p>However, depends on the closure of CL 7 in section A.4.4.1. above.</p>	Refer CL-7	OK
A.4.4.5. Are provisions in place to ensure that those operating the CPA are aware of and have agreed that their	/01/	<p>Yes, through a commercial/inclusion agreement as described in Section A.4.4.1. of the PoA-DD.</p> <p>However, depending on the closure of CL 7 in section A.4.4.1.</p>	Refer CL-7	OK

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<p>activity is being subscribed to the PoA?</p>				
<p>A.4.4.6. Is there a monitoring plan for the PoA, including a description of the proposed statistically sound sampling methods or procedures to be used by the DOE for the verification (please consider sampling among CPAs and within CPAs)?</p>	/01/	<p>As stated in Section A.4.4.2. of the PoA-DD, no sampling will be done within any specific CPA and neither among CPAs as it is initially envisaged that each CPA will be verified and thus no sampling is required.</p>	OK	OK
<p>A.4.4.7. In case the coordinating/managing entity opts for a verification method that does not use sampling but verifies each CPA, does the monitoring plan provide a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA?</p>	/01/	<p>Yes, refer section A.4.4.3. above:</p> <p><i>Yes, as described in section A.4.4.1. of the PoA-DD a procedure to avoid double accounting for each CPA under the PoA has been provided for.</i></p> <p><i>However, depends on the closure of CL 7 in section A.4.4.1. above.</i></p>	Refer CL 7	OK
<p>A.4.5. Public funding of the project activity</p>				
<p>A.4.5.1. Is the information provided on public funding in compliance with the actual situation or planning as available by the project participants?</p>	/01/	<p>Section A.4.5. of the PoA-DD states that no public funding has been used in the development of this PoA.</p>	OK	OK
<p>A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PoA-DD (in particular annex 2)?</p>	/01/	<p>Yes, refer section A.4.5.1. above.</p>	OK	OK
<p>B. DURATION OF THE PROGRAMME OF ACTIVITIES</p>				

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B.1. Starting date of the programme of activities				
B.1.1. Is the programme's starting date clearly defined and reasonable?	/01/	As stated in section B.1. of the PoA-DD, the project activity start date is 04/04/2012, which is after the date of first publishing for global stakeholder consultation but this date should be 4 weeks after the expected RfR upload date.	CL-11 (New CL)	OK
B.2. Length of the programme of activities (PoA)				
B.2.1. Is the assumed length of the PoA clearly defined by the coordinating/ managing entity and reasonable (max 28 years)?	/01/	Yes, as stated in section B.2., the length of the PoA is 28 years and 0 months, which is in accordance with the requirements of EB 55 Annex 38.	OK	OK
C. ENVIRONMENTAL ANALYSIS				
C.1. Definition of the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken:				
C.1.1. Is it defined whether the environmental analysis takes place at PoA or CPA level?	/01/ /02/ /	As per Section C.1 of the PoA-DD, the environmental analysis is done at SSC-CPA level.	OK	OK
C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	/01/	The choice for environmental analysis at CPA level is justified as local conditions and potential impacts will vary according to the specific geographical location of the CPA. Hence this selection is appropriately justified.	OK	OK
C.2. Documentation on the analysis of the environmental impacts of the PoA, including trans boundary impacts:				
C.2.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	/01/	In Section C.3. of the PoA-DD, it is stated that it is likely that an Environmental Impact Assessment will be required for a typical CPA. However, this statement is not conclusive and does not indicate whether, in case of uncertainties regarding the EIA-requirements, the	CL-8	OK

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		<p>analysis of the environmental impacts will be done according to the most conservative approach. Hence a CL has been raised.</p> <p>CL 8: The project participant is requested to describe in which cases (e.g. depending on the type of CPA) an EIA will be required.</p> <p>For cases for which it is uncertain what the requirements are, the project participant is requested to describe in which way the analysis of the environmental impacts will be executed and whether this will be done according to the most conservative way.</p>		
C.2.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	/01/	This checklist question is for a typical CPA of the PoA as the EIA is done at CPA-level, as stated in Section C.1. of the PoA-DD.	N/A	
C.2.3. Will the project create any adverse environmental effects?	/01/	This checklist question is for a typical CPA of the PoA as the EIA is done at CPA-level, as stated in Section C.1. of the PoA-DD.	N/A	
C.2.4. Were trans-boundary environmental impacts identified in the analysis?	/01/	This checklist question is for a typical CPA of the PoA as the EIA is done at CPA-level, as stated in Section C.1. of the PoA-DD.	N/A	
C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA of the PoA:				
C.3.1. Have the identified environmental impacts been addressed in the project design sufficiently?	/01/	<p>This checklist question is for a typical CPA of the PoA as the EIA is done at CPA-level, as stated in Section C.1. of the PoA-DD.</p> <p>However, depending on the closure of CL 8 in section C.2.1. above.</p>	Refer CL-8	OK
C.3.2. Does the project comply with environmental legislation in the host country?	/01/	<p>This checklist question is for a typical CPA of the PoA as the EIA is done at CPA-level, as stated in Section C.1. of the PoA-DD.</p> <p>However, depending on the closure of CL 8 in section C.2.1. above.</p>	Refer CL-8	OK
C.3.3. Is, per host country laws/regulations, an environmental impact	/01/	This checklist question is for a typical CPA of the PoA as the EIA is done at CPA-level, as stated in Section C.1. of the PoA-DD.	Refer CL-8	OK

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assessment necessary for a typical CPA?		However, depending on the closure of CL 8 in section C.2.1. above.		
D. STAKEHOLDERS' COMMENTS				
D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:				
D.1.1. Is there a clear statement whether the stakeholder comments will be invited at PoA or CPA level?	/01/ /02/	Yes, as stated in Section D.1. of the PoA-DD, stakeholder comments will be invited at CPA level.	OK	OK
D.1.2. Is the choice justified in a clear and reasonable manner?	/01/	Yes, as described in Section D.1. of the PoA-DD, the choice for executing local stakeholder consultation at SSC-CPA level has been justified as CPAs under this PoA will be located at different locations with varying local conditions, hence inviting local stakeholder comments at CPA-level is the most appropriate in order to collect comments applicable to the specific CPA.	OK	OK
D.1.3. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how comments by local stakeholders were invited?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.1.4. If the stakeholder comments will be invited at PoA level, is there a summary of the contents?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.1.5. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how due account was taken of any comments received?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.2. Brief description how comments by local stakeholders have been invited and compiled				

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D.2.1. Have relevant stakeholders been consulted?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.2.2. Have appropriate media been used to invite comments by local stakeholders?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.2.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.2.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.3. Summary of the comments received				
D.3.1. Is a summary of the received stakeholder comments provided?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
D.4. Report on how due account was taken of any comments received				
D.4.1. Has due account been taken of any stakeholder comments received?	/01/	This checklist question is for a typical CPA of the PoA as local stakeholder consultation is done at CPA level, as stated in D.1. of the PoA-DD.	N/A	
E. APPLICATION OF A BASELINE AND MONITORING METHODOLOGY TO A TYPICAL CPA				
E.1. Title and reference of the approved baseline and monitoring methodology applied to CPA included in the PoA				
E.1.1.1. Are reference number, version number, and title of the baseline and monitoring	/01/ /B02/	Yes, section E.1. of the PoA-DD clearly indicates the reference number, version number and title of the applied monitoring methodology, i.e.: AMS-I.D. Grid Connected Renewable Energy Generation, version 17 as	OK	OK

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methodology clearly indicated?		of the 3 rd of June 2011, which is in line with the latest version available at the time of developing the PoA-DD.		
E.1.1.2. Is the applied version the most recent one and / or is this version still applicable?	/01/	Yes, the applied version is the most recent one and still applicable.	OK	OK
E.1.1.3. Is the applied methodology and applicable tool therein is applied and approved by the board, for use in PoA?	/B02/	Yes, the applied methodology and the applicable tools therein have been approved by the board for use in a PoA.	OK	OK
E.2. Justification of the choice of the methodology and why it is applicable to a CPA				
E.2.1.1. Is the applied methodology considered the most appropriate one?	/01/ /B02/	Yes, the applied methodology AMS-I.D. is considered as most appropriate methodology for grid-connected renewable energy projects.	OK	OK
E.2.1.2. Does the methodology account for leakage in the context of a CPA?	/B02/	The methodology AMS-I.D. states: "If the energy generating equipment is transferred from another activity, leakage is to be considered". Hence, leakage emissions due to the PoA are not considered.	OK	OK
E.2.1.3. Criterion 1: This methodology comprises renewable energy generation units, such as photovoltaic, tidal/wave, wind, geothermal and renewable biomass: (a) supplying electricity to a national or a regional grid; or (b) supplying electricity to an identified customer facility via national/regional grid through a contractual arrangement such as wheeling	/01/ /B02/	As stated in Section E.2. of the PoA-DD, potential CPAs under this PoA will be energy generation units that use hydro technology (run of river) which will supply electricity to a national or a regional grid or to an identified customer facility via national/regional grid through a contractual arrangement such as wheeling, which meets the requirement as laid down under paragraph 1 of AMS-I.D.,	OK	OK
E.2.1.4. Criterion 3: This methodology is applicable	/01/	As stated in Section E.2. of the PoA-DD, potential CPAs under this PoA	OK	OK

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<p>to project activities that:</p> <p>(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);</p> <p>(b) Involve a capacity addition;</p> <p>(c) Involve a retrofit of (an) existing plant(s); or</p> <p>(d) Involve a replacement of (an) existing plant(s)</p>	<p>/B02/</p>	<p>will either involve a Greenfield plant or a capacity addition, a retrofit or a replacement, hence fulfilling the requirement as laid down under paragraph 3 of AMS-I-D.</p>		
<p>E.2.1.5. Criterion 4: Criterion 4: Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none"> - The project activity is implemented in an existing reservoir with no change in the volume or 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; 	<p>/01/ /B02/</p>	<p>As stated in Section E.2. of the PoA-DD, potential CPAs under this PoA will involve hydro power plants either run of river or power plants that have water reservoirs. It is stated in Section E.2. of the PoA-DD that for the hydro power plants with water reservoirs, the potential CPA is either implemented in an existing reservoir with no change in volume of the reservoir; or in an existing reservoir where the volume of the reservoir is increased and the power density is greater than 4 W/m²; or the potential CPA results in (a) new reservoir(s) and a power density greater than 4 W/m², hence fulfilling the requirement as laid down under paragraph 4 of AMS-I-D.</p>	<p>OK</p>	<p>OK</p>

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<p>- 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.</p>				
<p>E.2.1.6. Criterion 5: If the new unit has both renewable and non-renewable components (e.g. wind/diesel unit), the 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.</p>	<p>/01/ /B02/</p>	<p>As stated in Section E.2. of the PoA-DD, potential CPAs under this PoA will have renewable components only and will have an installed capacity of less than 15 MW, hence fulfilling the requirement as laid down under paragraph 5 of AMS-I-D.</p>	<p>OK</p>	<p>OK</p>
<p>E.2.1.7. Criterion 7: 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</p>	<p>/01/ /B02/</p>	<p>As stated in Section E.2. of the PoA-DD, for all potential CPAs under this PoA that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added due to the CPA will be less than 15 MW and will be physically distinct from the existing units, hence fulfilling the requirement as laid down under paragraph 7 of AMS-I-D.</p>	<p>OK</p>	<p>OK</p>
<p>E.2.1.8. Criterion 8: 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.</p>	<p>/01/ /B02/</p>	<p>In the table of Section A.4.2.2. of the PoA-DD it states that a CPA must have a capacity of less than 15 MW, hence fulfilling the requirement as laid down under paragraph 8 of AMS-I-D.</p>	<p>OK</p>	<p>OK</p>

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<p>E.2.1.9. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled?</p>	<p>/01/ /B02/</p>	<p>As described in sections E.2.1.3 – E.2.1.8. above, CPAs to be included under this PoA are of such nature that they meet the applicability criteria as laid down in paragraph 1 to 9 of the applied methodology AMS-I.D.</p> <p>As stated in Section E.2. of the PoA-DD, the CPAs are grid-connected and thus application of the “Tool to calculate the emission factor for an electricity system” is relevant as this tool may be applied when calculating baseline emissions for a project activity that supplies electricity to a grid.</p>	<p>OK</p>	<p>OK</p>
<p>E.3. Description of the sources and gases included in the CPA boundary</p>				
<p>E.3.1.1. Does the CPA boundary include the physical and geographical location where the programme activities take place?</p>	<p>/01/ /B02/</p>	<p>As stated in Section E.3. of the PoA-DD, the spatial extent of the project boundary includes the project power plant and all power plants physically connected to the electricity system that the CDM project power plant is connected to, which for this PoA is the grid in one of the countries that form part of the Southern African Power Pool. Hence an SSC-CPA boundary occurs well within the PoAs geographical boundary.</p>	<p>OK</p>	<p>OK</p>
<p>E.3.1.2. Are all sources and gases within the boundary considered in a clear manner?</p>	<p>/01/ /B02/</p>	<p>As per AMS-I.D. only CO₂-emissions need to be considered, except for hydro power project activities that result in expansion of reservoirs (including new reservoirs), for which CH₄-emissions need to be considered as well, as per ACM0002.</p> <p>CL 9: It is not evident how all sources and gases within the project boundary have been considered as per applicable methodologies AMS-I.D. and ACM0002 in some cases. The project participant is requested to clarify.</p>	<p>CL-9</p>	<p>OK</p>
<p>E.3.1.3. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PoA-DD?</p>	<p>/01// B02/</p>	<p>Yes, the spatial and technological boundaries as verified on-site comply with the discussion provided in the PoA-DD.</p>	<p>OK</p>	<p>OK</p>
<p>E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:</p>				

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<p>E.4.1.1. Have all technically feasible baseline scenario alternatives to the PoA been identified and discussed by the PoA-DD? Why can this list be considered as being complete?</p>	<p>/01// B02/</p>	<p>As stated in Section A.4.2. and in Section E.2. of the PoA-DD, CPAs falling under the ambit of this PoA can either be:</p> <ul style="list-style-type: none"> - Greenfield plant; - capacity addition; - retrofit; or - replacement <p>The baseline scenario for the above mentioned typical project activities varies, however only 1 of the possible baseline scenarios (as per the applied methodology AMS-I.D.) has been identified in Section E.4. of the PoA-DD. Hence a CAR has been raised.</p> <p>CAR 10: The baseline scenario as provided in Section E.4. of the PoA-DD is not in accordance with all possible types of project activities that fall under the umbrella of the PoA.</p>	<p>CAR-10</p>	<p>OK</p>
<p>E.4.1.2. Does project identify correctly and exclude those options not in line with regulatory or legal requirements?</p>	<p>/01/</p>	<p>Depends on the closure of CAR 10 in section E.4.1.1 above.</p>	<p>Refer CAR-10</p>	<p>OK</p>
<p>E.4.1.3. Have applicable regulatory or legal requirements been identified?</p>	<p>/01/</p>	<p>Depends on the closure of CAR 10 in section E.4.1.1 above.</p>	<p>Refer CAR-10</p>	<p>OK</p>
<p>E.4.1.4. Does the PoA-DD identify the most likely baseline scenario in absence of the project activity?</p>	<p>/01/</p>	<p>Depends on the closure of CAR 10 in section E.4.1.1 above.</p>	<p>Refer CAR-10</p>	<p>OK</p>
<p>E.4.1.5. Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc.?)</p>	<p>/01/</p>	<p>Depends on the closure of CAR 10 in section E.4.1.1 above.</p>	<p>Refer CAR-10</p>	<p>OK</p>
<p>E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of a typical CDM-CPA, included in a registered PoA (assessment and demonstration of additionality):</p>				
<p>E.5.1. Are the key criteria and data for assessing additionality of a</p>	<p>/01/</p>	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL</p>	<p>OK</p>

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<p>CDM-CPA that is to be included into the PoA clearly and unambiguously stated?</p>			5 & 6	
<p>E.5.2. Key criteria and data for assessing additionality of a CDM-CPA</p>				
<p>E.5.2.1. Are the key criteria and data for assessing additionality of a CPA that is to be included into the PoA based on the additionality assessment in section E.5.1 of the PoA-DD?</p>	/01/	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL 5 & 6</p>	OK
<p>E.5.2.2. Is the choice of the criteria justified, based on the analysis in section E.5.1 of the PoA-DD?</p>	/01/	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL 5 & 6</p>	OK
<p>E.5.2.3. Does it become evident how these criteria would be applied to assess the additionality of a typical CPA at the time of inclusion?</p>	/01/	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL 5 & 6</p>	OK
<p>E.5.2.4. Is this information incorporated into the specific CDM-CPA-DD (“real case”)?</p>	/01/	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL 5 & 6</p>	OK
<p>E.5.2.5. If the starting date of the programme activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the programme activity?</p>	/01/	<p>Not applicable as the starting date of the PoA is after the date on which the PoA-DD was first published for global stakeholder consultation.</p>	N/A	OK
<p>E.5.2.6. Is a complete list of barriers developed that prevents the project activity to occur?</p>	/01/	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL 5 & 6</p>	OK

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<p>E.5.2.7. Does this list include at least one of the following barriers?</p> <p>(a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions;</p> <p>(b) Technological barrier: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions;</p> <p>(c) Barrier due to prevailing practice: prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions</p> <p>(d) Other barriers: without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organisational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.</p>	<p>/01/ / B02/</p>	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer CL 5 & 6</p>	<p>OK</p>
<p>E.5.2.8. Does the discussion</p>	<p>/01/</p>	<p>Depends on the closure of CL 5 and 6 in section A.4.3.2 above.</p>	<p>Refer</p>	<p>OK</p>

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sufficiently take into account relevant national and/or sectoral policies?	/ B02/		CL 5 & 6									
E.5.2.9. Is transparent and documented evidence provided on the existence and significance of these barriers?	/01/ / B02/	Depends on the closure of CL 5 and 6 in section A.4.3.2 above.	Refer CL 5 & 6	OK								
E.5.2.10. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	/01/ / B02/	Depends on the closure of CL 5 and 6 in section A.4.3.2 above.	Refer CL 5 & 6	OK								
E.6. Estimation of Emission reductions of a CPA												
<i>E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA</i>												
E.6.1.1. Is it explained how the procedures provided in the methodology are applied?	/01/ / B02/	Yes, as described in Section E.6.1., the four different types of project activities (i.e. Greenfield projects; capacity addition; retrofit; and replacement) will guide the methodological choices as per AMS-I.D. as to how the emission reductions will be estimated. It has been described which methodological choices have been made in terms of the emission factor derivation.	OK	OK								
E.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	/01/ / B02/	Two options are being offered for determining the emission factor. The option to use the tool to calculate the emission factor for an electricity system has been chosen, which is in line with the situation verified on-site.	OK	OK								
Determination of Project Emission (Comment on any line answered "No")												
E.6.1.3. Component 1: Emissions from the consumption of fossil fuel	/01/ / B02/	<table border="1" data-bbox="801 1161 1662 1295"> <tr> <td colspan="2">NA</td> </tr> <tr> <td>Project emission checklist</td> <td>Yes / No /NA</td> </tr> <tr> <td>Component discussed in the PDD?</td> <td>NA</td> </tr> <tr> <td>Formulae correctly applied?</td> <td>NA</td> </tr> </table>	NA		Project emission checklist	Yes / No /NA	Component discussed in the PDD?	NA	Formulae correctly applied?	NA	NA	
NA												
Project emission checklist	Yes / No /NA											
Component discussed in the PDD?	NA											
Formulae correctly applied?	NA											
E.6.1.4. Component 2: Emissions from the consumption of electricity.	/01/ /	NA	NA									

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	B02/	Project emission checklist	Yes / No /NA		
		Component discussed in the PDD?	NA		
		Formulae correctly applied?	NA		
E.6.1.5. Component 3: Emissions from the consumption of non-condensable gases.	/01/ B02/	NA		NA	
		Project emission checklist	Yes / No /NA		
		Component discussed in the PDD?	NA		
		Formulae correctly applied?	NA		
E.6.1.6. Component 4: Emissions from water reservoirs of hydro power plant	/01/ / B02/	Yes		OK	OK
		Project emission checklist	Yes / No /NA		
		Component discussed in the PDD?	Yes		
		Formulae correctly applied?	Yes		
E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a CDM-CPA:					
E.6.2.1. Are the formulae required for the determination of emission reductions correctly presented, enabling a complete identification of parameters to be used and / or monitored?	/01/ / B02/	Yes, the formulae required for the determination of emission reductions are correctly presented in the PoA-DD, enabling a complete identification of parameters to be used and / or monitored.		OK	OK
E.6.2.2. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a CDM-CPA, completely presented?	/01/ / B02/	Yes, the equations, including fixed parametric values, to be used for calculation of emission reductions of a CDM-CPA, are completely presented.		OK	OK
E.6.3. Data and parameters that are to be reported in CDM-CPA-DD form					
E.6.3.1. Is the list of parameters presented in chapter E.6.3 considered to be complete with regard to the requirements of the applied methodology?	/01/ / B02/ /B03/	Yes, the list of parameters as presented in Section E.6.3. of the PoA-DD is complete and appropriate.		OK	OK
E.7. Application of the monitoring methodology and description of the monitoring plan					

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E.7.1. <i>Data and parameters to be monitored by each CDM-CPA</i>				
E.7.1.1. Is the list of parameters presented in chapter E.7.1 considered to be complete with regard to the requirements of the applied methodology?	/01/ /B02/	Section E.7.1 of the PoA-DD has been provided with a complete list of monitoring parameters, in accordance with the requirements of the applied methodology.	OK	OK
E.7.2. <i>Description of the monitoring plan for a CDM-CPA</i>				
E.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	/01// B02/ /B04/	<p>During the site-visit the CME's internal management system has been made available and it has been confirmed that it provides for the requirements laid down under Annex 3 of EB65, paragraph 17.</p> <p>However in Section E.7.2. of the PoA-DD, the operational and management structure has not been clearly described. Hence a CL is raised.</p> <p>Depending on closure of CL 7 in section A.4.4.1. above.</p> <p>CL 10: Section E.7.2. of the SSC-PoA-DD does not clearly describe the operational and management structure and depending on closure of CL 7 it cannot be assessed whether or not such description would be in compliance with the envisioned situation.</p>	Refer CL 7 and CL 10	OK
E.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	/01// B02/ /B04/	Refer CL 10 in section E.7.2.1. above.	Refer CL 10	OK
E.7.2.3. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	/01// B02/ /B04/	Refer CL 10 in section E.7.2.1. above.	Refer CL 10	OK
E.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	/01// B02/ /B04/	Not applicable as no additional background information on monitoring has been provided in Annex 4 of the PoA-DD.	N/A	

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E.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)				
E.8.1.1. Is there any indication of a date when the baseline was determined?	/01/ /16/	Yes, as stated in the PoA-DD in Section E.8, the date of completion of the baseline study and monitoring methodology was in March 2012.	OK	OK
E.8.1.2. Has dd/mm/yyyy format been used to indicate the date?	/01/ /B04/	No, section E.8 is not using the standard-format DD/MM/YYYY for indicating the date on which the baseline study and monitoring methodology was completed, hence a CAR is raised. CAR 11: In Section E.8 of the PoA-DD the standard-format DD/MM/YYYY has not been used to indicate the date on which the baseline study and monitoring methodology was completed.	CAR 11	OK
E.8.1.3. Is this consistent with the time line of the PoA-DD history?	/01// B04/	Depends on the closure of CAR 11 in section E.8.1.2. above.	Refer CAR 11	OK
E.8.1.4. Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	/01// B04/	Yes, the information on the entity responsible for the application of the baseline and monitoring methodology has been provided and is consistent with the actual situation.	OK	OK
E.8.1.5. Is information provided whether this person / entity are also considered a project participant?	/01// B04/	As per Section A.3 of the PoA-DD, the entity responsible for the application of the baseline and monitoring methodology is not a project participant.	OK	OK
F. ANNEXES 1 – 4				
F.1. Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	/01// B04/	The name of the project participant as stated in Section A.3 is not consistent with the name of the organisation provided in Annex1 of the PoA-DD. However, referring to CAR 6 as stated in section A.3.3. above.	Refer CAR 6	OK

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F.1.2.	Is the information on all private participants and directly involved Parties presented?	/01// B04/	Yes, the information on all private participants and directly involved parties has been presented in Annex 1 of the PoA-DD.	OK	OK
F.2. Annex 2: Information regarding public funding					
F.2.1.	Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	/01// B04/	Not applicable as no public funding has been used in the development of this PoA, refer section A.4.5.1. above.	OK	OK
F.2.2.	If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	/01// B04/	Not applicable, refer section F.2.1. above.	N/A	
F.3. Annex 3: Baseline information					
F.3.1.	If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	/01// B04/	Not applicable as no additional background information on baseline information has been provided in Annex 3 of the PoA-DD.	OK	OK
F.3.2.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	/01// B04/	Not applicable, refer section F.3.1. above.	N/A	
F.3.3.	Does the additional information substantiate / support statements given in other sections of the PoA-DD?	/01// B04/	Not applicable, refer section F.3.1. above.	N/A	
F.4. Annex 4: Monitoring information					
F.4.1.	If additional background information on monitoring is	/01//	Not applicable as no additional background information on monitoring	4 OK	5 OK

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	provided: Is this information consistent with data presented in other sections of the PoA-DD?	B04/	has been provided in Annex 4 of the PoA-DD.		
F.4.2.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	/01// B04/	Not applicable, refer section F.4.1. above	N/A	
F.4.3.	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PoA-DD?	/01// B04/	Not applicable, refer section F.4.1. above	N/A	

Table 2: Resolution of Clarification and Corrective Action Requests

6 Requests by validation team	Ref. to table 1	Summary of programme owner response	Validation team Conclusion
CORRECTIVE ACTION REQUESTS			
CAR 1: Letters of Approval from the DNAs of nine (9) Host Countries (as mentioned in Section A.4.1.1. of the PoA-DD) have not been submitted to DOE for validation.	A.1.1. A.3.2. A.4.1.3.	After consideration of this issue it is has been decided that the PoA, at this stage, will be limited to South Africa only. The application for South African host country approval has been submitted.	In revised PoA-DD, now only host party is South Africa and LoA from host country, South Africa provided for validation. CAR Closed
CAR 2: In Section A.1 of the PoA-DD, the date has not been presented according to the standard format, i.e. DD/MM/YY. Start date of PoA should be 4 weeks after the RfR upload date, CME is requested to revise the date in sec. B.1	A.1.2.	The date format has been changed in line with the standard format and start date is as per the definition of start date in accordance with CDM glossary .	The date format now revised as dd/mm/yyyy format and start date mentioned in PoA-DD confirmed with latest CDM glossary, ver. 7 and found to be correct.

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			CAR Closed
<p>CAR 3: The table in Section A.3. of the PoA-DD is not complete, e.g. it does not include all expected Host Parties.</p>	A.2.1.	See response to CAR 1 above, the PoA is now only being considered for South Africa. Therefore only South Africa is mentioned in the POA –DD.	<p>South Africa is only host party which was confirmed with LoA from Host country DNA and revised PDD is also in line.</p> <p>CAR closed</p>
<p>CAR 4: Evidence to substantiate the fact that the PoA is a voluntary action has not been submitted to the DOE for validation.</p>	A.2.3. A.4.3.1.	A letter has been supplied by the CME indicating that the PoA is a voluntary action. The document reference is 2012-08-21_CAR4_POAVolActionLetter	<p>An undertaking from CME (Nu Planet Project Development (Pty) Ltd.) dated 15/08/2012 has been provided for validation stating that proposed PoA is voluntary action.</p> <p>CAR Closed</p>
<p>CAR 5: In section A.3 of the PoA-DD a clear description whether the party involved is a private or a public entity has not been provided.</p>	A.3.1.	NuPlanet Project Development (Pty) Ltd is a private entity. The text has been changed to reflect this.	<p>Necessary correction made in sec A.3 of the revised PoA-DD.</p> <p>CAR Closed</p>
<p>CAR 6: The information on the coordinating/managing entity as provided in section A.3. of the PoA-DD and in its Annex 1 is not consistent.</p>	A.3.3.	The programme owner confirms that the CME is NuPlanet Project Development (Pty) Ltd. The information in the POA-DD has been changed to reflect this.	<p>Nu planet Project Development (Pty) Ltd is CME and the information provided in sec. A.3 and Annex. 1 is not consistent in revised PoA-DD.</p> <p>CAR closed</p>
<p>CAR 7: It is not evident whether all applicable national and/or sectoral policies</p>	A.4.1.2.	Text has been added to Section A 4.1.2.	<p>Relevant national and /or sectoral policies and</p>

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<p>and regulations of each Host Country within the PoA's boundary have been taken into consideration.</p>		<p>describing the situation in South Africa only (as a result of the change in location of the PoA) with regard to applicable and/or national policies and regulations.</p>	<p>regulations of Host country South Africa, now been included in revised PoA-DD which is in line with PoA-DD filling guideline.</p> <p>CAR Closed</p>
<p>CAR 8: In Section A.4.2.2 of the PoA-DD, the eligibility criteria for inclusion of a CPA in the PoA have been described. However the description of requirement (c) in section A.4.2.2 of the PoA-DD does not match the requirement as provided in the "Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities (Version 01.0)" EB 65 Annex 3.</p>	<p>A.4.2.10.</p>	<p>The description of requirement (c) in section A. 4.2.2. of the POA-DD has been changed to reflect the requirement as provided in the standard identified.</p>	<p>Correction made by PP confirmed with revised PoA-DD.</p> <p>CAR Closed</p>
<p>CAR 9: The project participant is requested to describe the means/processed applied for assessing whether or not a potential CPA meets the eligibility criteria as per Section A.4.2.2. of the PoA-DD and may be included under the PoA accordingly.</p>	<p>A.4.2.10.</p>	<p>The process for assessing whether a potential CPA meets the eligibility criteria has been described in Section A.4.2.2. The description is aligned with content of the CME Manual.</p>	<p>Methods for assessing whether a potential CPA meets the eligibility criteria have been included in section A.4.2.2 of the revised PoA-DD.</p> <p>CAR Closed</p>
<p>CAR 10: The baseline scenario as provided in Section E.4. of the PoA-DD is not in accordance with all possible types of project activities that fall under the umbrella of the PoA.</p>	<p>E.4.1.1. E.4.1.2. E.4.1.3. E.4.1.4. E.4.1.5.</p>	<p>Section E.4 has had text added to it to ensure that the baseline scenarios with regard to all the possible project types that could fall under the PoA's umbrella have been detailed.</p>	<p>All type of possible baseline scenario depending on the project types that could fall under the proposed PoA, now been included in section E.4 of the PoA-DD.</p> <p>CAR Closed</p>
<p>CAR 11: In Section E.8 of the PoA-DD the standard-format DD/MM/YYYY has</p>	<p>E.8.1.2. E.8.1.3.</p>	<p>The date has been changed to reflect the standard format.</p>	<p>Date format has now been corrected to dd/mm/yyyy</p>

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not been used to indicate the date on which the baseline study and monitoring methodology was completed.			format in section E.8 of the revised PoA-DD. CAR Closed
CLARIFICATION REQUESTS			
CL 1: The project participant is requested to clarify what the impact of the technology to be employed is on the greenhouse gas balance.	A.2.4. A.2.5.	Further detail on the technology and how its deployment will impact on the greenhouse gas balance has been included in Section A 4.2.1 of the POA DD.	Impact of employed technology on greenhouse gas balance is included in section A.4.2.1 of the PoA-DD CL Closed
CL 2: In Section A.4.2.1 of the PoA-DD, the applicable type and category of the proposed PoA has not been mentioned.	A.4.2.2.	The PoA type and category is as follows: Scope Number 1 and Sectoral Scope Energy industries (renewable - / non-renewable sources). This information has been included in Section A 4.2.1 of the PoA DD.	The applicable type and category under which proposed PoA falls , included in revised PoA-DD CL closed
CL 3: The project participant is requested to describe and clarify in section A.4.2.1. of the PoA-DD, whether or not technology transfer takes place, how the technology transfer would take place and what technology needs to be transferred from (an) Annex-I-country/ies to the Host Country/ies in case applicable.	A.4.2.4.	Additional text has been added to A.4.2.1 explaining the technology elements of such projects are available in South Africa and if sourced internally there will be no technology transfer. However if projects source their technology beyond their national borders, there is likely to be technology transfer of equipment and knowledge. The actual situation would be dependent on the CPA in question.	Justification provided by CME regarding technology transfer is accepted and explanation provided in revised PoA-DD is also in line. CL Closed
CL 4: The project participant is requested to clearly specify in the PoA-DD what the training- and maintenance efforts-requirements are in order to be able to carry out the project as per schedule during the project period.	A.4.2.8. A.4.2.9.	Text has been added to Section A.4.2 to specify what the training and maintenance efforts required would be to ensure that proposed CPAs, falling under the umbrella of	Description regarding training and maintenance requirements for proposed CPAs included in section

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		this PoA, would be able to carry out the projects as per their schedules.	A.4.2.1 of the revised PoA-DD CL Closed
CL 5: The project participant is requested to substantiate in Section A.4.3. of the PoA-DD that the implementation of the PoA is a voluntary action which would not otherwise have been implemented.	A.4.3.2. E.5.1. E.5.2.1. E.5.2.2. E.5.2.3. E.5.2.4. E.5.2.5. E.5.2.6. E.5.2.7. E.5.2.8. E.5.2.9. E.5.2.10.	Section A.4.3 has had text added to it to substantiate that the implementation of the PoA is a voluntary action and would not otherwise have been implemented.	Section A.4.3 has been corrected in revised PoA-DD which now explicitly states that implementation of PoA is a voluntary action. CL Closed
CL 6: The project participant is requested to clarify the following issues, which are not clearly defined in Sections A.4.3. and E.5: <ul style="list-style-type: none"> whether the additionality would be proven at PoA level or CPA level for small-scale CPAs, whether demonstration of additionality will be done using the tool for demonstration and assessment of additionality (EB65 Annex 21, version 06) or that additionality will be demonstrated due to at least one of the barriers as listed in Attachment A of Appendix B of the "Simplified modalities and procedures for small-scale CDM project activities" thus it is not clear whether the eligibility criteria for inclusion of a potential CPA have been derived on requirements stated in paragraph 9 of Annex 3 to EB65 	A.4.3.2. E.5.1. E.5.2.1. E.5.2.2. E.5.2.3. E.5.2.4. E.5.2.5. E.5.2.6. E.5.2.7. E.5.2.8. E.5.2.9. E.5.2.10.	Text added confirming in Section 4.3 (ii) that additionality would be proven at CPA level. Text added confirming in Section 4.3 (ii) that additionality will be demonstrated using at least one of the barriers listed in Attachment A of Appendix B. Eligibility criteria 8 have been reworded to explicitly show that the requirements of paragraph 9 of Annex 3 of EB 65 have been fulfilled.	Section 4.3 of the revised POA-DD confirms that additionality will be proven at CPA level Correction made confirmed with revised PoA-DD and found to be correct. CL is closed.
CL 7: A copy of the CME's internal management system for ensuring that potential CPAs meet all requirements and eligibility criteria before inclusion in the registered PoA has not been submitted to the DOE for	A.4.4.1. A.4.4.2. A.4.4.3.	A copy of the CME's internal management system detailing the eligibility assessment process has been submitted to the DoE. The	Copy of the CME's internal management system has been provided for validation

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validation.	A.4.4.4. A.4.4.5. A.4.4.7. E.7.2.1.	document reference is 2012-08-21_CL7_POACmeManSystem	CL Closed
<p>CL 8: The project participant is requested to describe in which cases (e.g. depending on the type of CPA) an EIA will be required.</p> <p>For cases for which it is uncertain what the requirements are, the project participant is requested to describe in which way the analysis of the environmental impacts will be executed and whether this will be done according to the most conservative way.</p>	C.2.1. C.3.1. C.3.2. C.3.3.	<p>Text has been added to C.3 to address this request.</p> <p>In the event that an EIA is not required, an environmental analysis using an independent consultant guided by an internationally accepted document guiding the undertaking of such an analysis will be done.</p> <p>For an example of such a document see: 2012-09-14_CL8_EDDHydroprojects</p>	Description provided in section C.3 of the revised PoA-DD is found to be appropriate. CL closed
<p>CL 9: It is not evident how all sources and gases within the project boundary have been considered as per applicable methodologies AMS-I.D. and ACM0002 in some cases. The project participant is requested to clarify.</p>	E.3.1.2.	Text has been added to explicitly show how the sources and gases have been considered in terms of the AMS I.D. and ACM 0002.	Correction made in revised PoA-DD which found to be correct. CL closed
<p>CL 10: Section E.7.2. of the SSC-PoA-DD does not clearly describe the operational and management structure and depending on closure of CL 7 it cannot be assessed whether or not such description would be in compliance with the envisioned situation.</p>	E.7.2.1. E.7.2.2. E.7.2.3.	<p>Content has been added to section E. 7.2 to clearly describe the operational and management structure with regard to the management of the Monitoring Plan. In additional documents supporting the operation of the CME Management System has been provided including: Monitoring Procedures; Calibration Plan; Data Management and Reporting; Job Descriptions; CME Training Plan; and, Monitoring Training Plan.</p> <p>Document References:</p>	Description provided in sec. E.7.2 of the revised PoA-DD related to O&M Structure and management of the monitoring plan is found to be appropriate and supporting documents for calibration plan, data management reporting, monitoring procedures, monitoring plan, quality control and metering plan are appropriate and accepted by validation

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		<p>2012-09-06_CL10_POACalibrationPlan</p> <p>2012-09-06_CL10_POADatamanagementandreporting</p> <p>2012-09-06_CL10_POAmonitoringprocedures</p> <p>2012-09-06_CL10_POAmonitoringtrainingplan</p> <p>2012-09-06_CL10_POAqualitycontrol</p> <p>2012-09-06_CL10_POAjobdescriptions</p> <p>2012-09-06_CL10_POAcmetrainingplan</p>	<p>team.</p> <p>CL Closed</p>
<p>CL 11</p> <p>Start date of PoA should be 4 weeks after the RfR upload date, CME is requested to revise the date in sec. B.1</p>	B.1	<p>Start date of PoA is correct. Date of GSC considered as PoA start date which is in line with latest CDM glossary, ver. 07, EB 70.</p>	<p>Justification provided for PoA start date is found to be appropriate by validation team.</p> <p>CL Closed</p>

Table3: Forward Action Requests

Forward action request	Reference to Table 2	Response by project participants Validation Conclusion
Not applicable	-	-

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APPENDIX B CERTIFICATE OF COMPETENCE

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Pankaj Kumar

is hereby certified as a

Qualified CDM Lead Assessor

with Carbon Check (Pty) Ltd, under the regulations of the
UNFCCC and Carbon Check's qualification criteria, in the following
Technical Area/s:

1.1, 1.2, 3.1, 4.5, 13.1

Awarded: 30 September 2012

A blue ink signature of Mr Adam Simcock, written in a cursive style.

Chief Executive Officer
Mr Adam Simcock

A blue ink signature of Mr Priyesh Ramlal, written in a cursive style.

Chief Compliance Officer
Mr Priyesh Ramlal

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Ravi Shankar

is hereby certified as a

Qualified CDM Lead Assessor

*with Carbon Check (Pty) Ltd, under the regulations of the
UNFCCC and Carbon Check's qualification criteria, in the following
Technical Area/s:*

1.2, 2.1, 2.2, 3.1 & 13.1

Awarded: 12 May 2011

A handwritten signature in blue ink, appearing to read "Adam Simcock", written over a horizontal line.

Chief Executive Officer
Mr Adam Simcock

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