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Validation Report

VALIDATION OF THE CDM-POA:
PROGRAMME OF ACTIVITIES (POA) FOR SUSTAINABLE
RENEWABLE ENERGY POWER GENERATION IN PAPUA
NEW GUINEA (PNG)

REPORT NO. 600500712

23 November 2012

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Subject: Validation of the CDM PoA "Program of Activities (PoA) for Sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)"

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Project Participants:

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 Cnr of Wards Road & Cordia Street, Hohola,
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 Papua New Guinea

Project Site(s): Papua New Guinea

Applied Methodology / Version:

AMS-I.F. ver. 2
 AMS-I.D. ver. 17
 AMS-I.A. ver. 14

Scope(s):

1

Technical Area(s): 1.1,1.2

First PoA-DD Version (GSP):

Date of issuance: 08-07-2011
 Version No.: 1.1
 Starting Date of GSP 12-07-2011

Final PoA-DD version:

Date of issuance: 22-11-2012
 Version No.1.7

Assessment Team Leader:

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Assessment Team Members:

Mr. Kumud Ranjan, Mr. Supratik Dutta, Mr. Ajit Habbu

Technical Reviewer:

Mr. Robert Mitterwallner,
 Mr. Thomas Kleiser

Summary of the PoA Validation Opinion:

- ☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence for the determination of the PoA's fulfilment of all stated criteria. In our opinion, the PoA meets all relevant UNFCCC requirements for the CDM. Therefore, TÜV SÜD recommends the PoA for registration by the CDM Executive Board if the letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.
- ☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence for the determination of the PoA's fulfilment of all stated criteria. Therefore, TÜV SÜD 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.

ABBREVIATIONS

AMS	Approved Methodology Small scale
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CPA	CDM Programme activity
CPA-DD	CDM Programme Activity Design Document
CR / CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
KP	Kyoto Protocol
MP	Monitoring Plan
MoA	Memorandum of Agreement
MoC	Modalities of Communication
PoA	Programme of Activities
PoA-DD	Programme of activities design document
PP	Project Participant
PO	Partner Organisation
TÜV SÜD	TÜV SÜD South Asia Pvt. Ltd.
RE	Renewable Energy
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The objective of the validation process is to provide an independent assessment by a third party, a Designated Operational Entity (DOE), of the proposed Programme of Activities (PoA) and the CDM Programme Activity (CPA) template with generic information applicable to all CPAs under that PoA and the associated real case CPA-DD.

The assessment involves the evaluation of the basis of PoA and its design identified in the PoA Design Document (PoA-DD), template CPA design document (CPA-DD) and the associated real case CPA-DD using the defined criteria outlined by the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and results in a conclusion by the executing DOE on whether or not a PoA is valid to be submitted for registration to the CDM Executive Board (CDM-EB). The ultimate decision on the registration of a proposed PoA rests with the CDM-EB and the Parties involved.

The PoA addressed in this validation report has been submitted under the following title:

Program of Activities (PoA) for sustainable Renewable Energy Power Generation in Papua New Guinea (PNG).

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM PoA, the scope is set by:

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions and specific guidance outlined by the EB which are published under <http://cdm.unfccc.int>
- Guidelines for Completing the PoA Design Document (PoA-DD), CDM programme of activities template and design document (CPA-DD) and the applied CDM methodology including the sections especially dedicated to PoA
- Management systems and auditing methods
- Environmental issues relevant to the applicable sectoral scope
- Applicable environmental and social impacts and aspects of CDM project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice

The validation process is not meant to provide any form of consulting for 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 project design.

Once TÜV SÜD receives the PoA-DD and supporting CPA template and completed CPA-DD of the real case, it is made publicly available on the UNFCCC website and on TÜV SÜD's website, which initiates a 30 day global stakeholder consultation process (GSP). In special circumstances, such as when a PoA design changes, the GSP may need to be repeated. Information on the PoA-DD is presented on page 1 of this report.

The purpose of validation is to demonstrate compliance or non-compliance of the PoA with all stated and valid UNFCCC and host party requirements. Additionally, the purpose of validation is to enable the registration of PoA, which is only a part of the total CDM project cycle. Therefore, TÜV SÜD cannot be held liable by any party for decisions made, or not made, based on the validation opinion that go beyond this purpose.

2 VALIDATION METHODOLOGY

The PoA assessment is based on the “Clean Development Mechanism Validation and Verification Manual” and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CDM PoA are appointed. Once the project made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified, and the preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB “Environment and Energy” before being submitted to the CDM-EB.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. TÜV SÜD has developed a methodology-specific protocol customized for the PoA. The protocol demonstrates, in a transparent manner, the PoA criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

The validation protocol serves the following purposes:

- To organize the details and provision of clarifications on the requirements of which a CDM-PoA and its CPA-DD are expected to meet
- To elucidate how a particular requirement has been validated as well as to document the results of the validation and any adjustments made to the PoA-DD.

The validation protocol consists of three tables. The different columns in these tables are described in the tables below.

Validation Protocol Table 1: Conformity of CDM Programme of Activities				
Checklist Topic / Question	Reference	Comments	GSP	Final
<i>The checklist is organised in sections following the arrangement of the applied PoA-DD version. Each section is then subdivided. The lowest level constitutes a checklist question / criterion.</i>	<i>The section gives reference to documents in which the answer to the checklist question or item is found in case the comment refers to documents other than the PoA-DD.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is used to explain the conclusions reached. In some cases sub-checklists are applied indicating yes/no decisions on the compliance with the stated criterion. Any Request has to be substantiated within this column.</i>	<i>The section is used to present conclusions based on the assessment of the first PoA-DD version. The PoA-DD is either acceptable based on evidence provided (☑) or a Corrective Action Request (CAR) is issued due to non-compliance with the checklist question (See below). Clarification Request (CR) is used when the validation team has identified a need for further clarification. Forward Action Request is issued to highlight issues related to project implementation that require review during the first verification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PoA-DD version and further documents including assumptions presented in the documentation.</i>

Validation Protocol Table 2: Compilation and Resolutions of CARs, CRs and FARs			
	Comments and Results	Ref	Conclusion and IRL
Issue	<i>Corrective Action, Clarification or Forward Action Requests.</i>	<i>Reference to the checklist question number in Table 1</i>	<i>Final conclusions and relevant references.</i>
Response	<i>The responses given by the client or other project participants during communication with the validation team.</i>		
Assessment	<i>Summary of the discussion and revision of project documentation together with the validation team's responses</i>		

In case it is found that the project activity does not meet CDM requirements, more detailed information on this decision is presented in Table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	Id. of CAR/CR	Explanation of the Conclusion for Denial
<i>Referenced request if final conclusions from table 2 resulted in a denial.</i>	<i>Identifier of the Request.</i>	<i>Detailed explanation of why the PoA is considered non-compliant with a criterion and a clear reference to the criterion</i>

The completed validation protocol is enclosed in Annex 1.

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "Environment and Energy".

The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Validator (V)
- Validator Trainee (T)
- Technical Experts (TE)

It is required that the sectoral scope(s) and the technical area(s) linked to the methodology and project have to be covered by the assessment team.

Name	Qualification	Coverage of sectoral scope	Coverage of technical area	Coverage of financial aspect	Host country experience
Nikunj Agarwal	ATL	☑	☑	☑	☑
Supratik Dutta	V	☑	☑	-	☑
Kumud Ranjan	V	-	-	-	☑
Ajit Habbu	V	☑	☑	-	-

On-site Audit team: Kumud Ranjan, Supratik Dutta

Technical Reviewer: Mr. Robert Mitterwallner, Thomas Kleiser

2.2 Review of Documents

The PoA-DD and completed CPA-DD for the GSP was submitted to the DOE in July 2011. The PoA-DD and additional background documents related to the PoA design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done as an initial step of the validation process. A complete list of all documents and evidence material reviewed is attached as Annex 2 to this report.

2.3 Follow-up Interviews

During the period 01-02-2012 to 04-02-2012, TÜV SÜD performed interviews and physical site inspections with project stakeholders to confirm relevant information, and to resolve issues identified in the document review. The following table provides a list of all key persons interviewed in this process.

Name	Organisation
Susan Sapa	Financial Analyst, PNG Power Limited (PPL)
TitusTsigese	Environmental Officer, PPL
Damian Sonny	PNG Power Limited (PPL)
Darshak Mehta	CDM Consultant, ADB
Francis Uratun	Manager Infrastructure Planning, PPL
Tako Gwae	DPA FS
Wilson Wase	Private Consultant
John Pai	Advisor-Planning Oropa
Kate Hughes	Future Carbon Fund, ADB
Roy Isara	Waju Youth Leader
Daniaz Sakiki	Hydro Association Chairman
Cedric Sara	Kokoda Ward Councilor

Taylor Batuf	Waju Leters
Aubrey Karu	Board Chairman
Ann Combere	Waju Women's representative
Jerom Geroia	Waju Community Representative
Martin Barl	Director, REDD, Office of Climate Change and Development (DNA).
Danny Nekitel	Policy Analyst Mitigation, OCCD (DNA)
Dennis Warami	Senior Scientific Officer (Department of Environment and Conservation)
Bendan Trawen	Senior Scientific Officer (Department of Environment and Conservation)

2.4 Cross-check

During the validation process the team has made reference to available information related to similar projects or technologies as the CDM PoA. Project documentation has also been reviewed against the approved methodology applied to confirm the appropriateness of formulae and correctness of calculations.

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions, clarifications, and any other outstanding issues which need to be clarified for TÜV SÜD's conclusion on the PoA design. The CARs and CRs raised by TÜV SÜD are resolved during communication between the managing entity and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are documented in more detail in the validation protocol in Annex 1.

The PoA-DD version 1.7 that was submitted in November 2012 serves as the basis for the assessment presented herewith. Additional changes to the project during the validation process are not considered to be significant with respect to the main CDM objectives. The two CDM main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

2.6 Internal Quality Control

Internal quality control is the final step of the validation process and is conducted by the CB "Environment and Energy" which checks the final documentation, which includes the final validation report and all necessary documents. The completion of the quality control indicates that each submitted report has been approved by the CB Committee. In projects where one of the CB Committee members is part of the assessment team, the approval is given by the rest of the committee.

After confirmation by the Managing Entity and/ or CPA Implementer(s) and/ or PP, the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.

3 SUMMARY

The assessment work and the main results are described below in accordance with the VVM reporting requirements. The reference documents indicated in this section and Annex 1 are stated in Annex 2 of this report.

3.1 Approval

The project participant is PNG Power Ltd (PPL) of Papua New Guinea. The host Party Papua New Guinea (PNG) meets the requirements to participate in the CDM.

The DNA of Papua New Guinea has issued a Letter of Approval (LoA) on 21-08-2012 authorizing PNG Power Ltd. as a Coordinating and Managing Entity [51]. TÜV SÜD received this letter from the project participant (CME) directly and considers the provided letter as authentic.

Furthermore, after checking the provided LoA, TÜV SÜD confirms that the letter refers to the precise proposed CDM programme of activity title in line with the title in the PoA-DD "Program of Activities (PoA) for sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)".

The letter also indicates that participating Party is a Party to the Kyoto Protocol, and that the participation in the "Program of Activities (PoA) for sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)" project is voluntary. The LoA from PNG also confirms that the proposed CDM programme of activity contributes to the sustainable development in the host country and authorizes PNG Power Ltd to participate in the PoA. Based on the information given in the letter, TÜV SÜD considers the approval as unconditional with respect to these items.

The LoA has been issued by the host Party's DNA, Office of Climate Change and Development, Govt. of Papua New Guinea. TÜV SÜD therefore considers that the requirements of VVM (§§ 45-48) have been met.

The LoA does not refer to a specific version of the POA-DD or validation report.

3.2 Participation

The participant of the project activity has been approved by the corresponding Party, which is confirmed by the issued LoA.

The means of validation used are similar to the ones described in Section 3.1, specifically in regard to the approval process of the project activity.

3.3 Programme of Activities Design Documents

The PoA-DD and the CPA-DD template are in compliance with relevant form and guidance as provided by UNFCCC. The most recent version of the forms under VVM is used.

TÜV SÜD considers that the guidelines for the completion of the PoA documents in their most recent version have been followed. Relevant information was provided by the Managing entity and/ or project participants in the applicable PoA sections. The project issues were assessed through the protocol included in Annex 1.

3.4 Programme Description

The following description of the programme as per PoA-DD was verified:

The proposed Programme of Activities titled 'Programme of Activities (PoA) for Sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)' (further referred to as PoA) would promote development of small-scale renewable energy power projects viz. Wind, Solar, Hydro, Geothermal, Tidal, Wave, Renewable Biomass and Biomass Gasification, across the island nation of Papua New Guinea (PNG). This PoA by virtue of its core principle would contribute to a sustainable power sector and hence an established economy in an island nation by tapping unexplored renewable energy sources.

The PoA supports renewable energy generation from greenfield projects as well as renewable energy generation enhancement from capacity additions and/or retrofit/replacements. Each small-scale CDM Program Activity (referred later on as CPA) under this PoA will comprise one or more renewable energy power plants of similar technology type that has a combined installed capacity of no more than the threshold limit of 15 MW for small scale project activities. The CDM Programme activities (CPA's) that would displace electricity from a national/regional grid or a captive fossil fuel based electricity generation or a carbon intensive mini grid system, would qualify under this scheme

The proposed PoA is a voluntary action by the coordinating and managing entity PPL [30]. PPL would work closely with the individual CPA implementers for the inclusion of CPA's into the PoA. The PoA does not lead to diversion of any ODA funding [42]. Furthermore, it is clearly iterated in the PoA eligibility criteria that only CPAs that do not lead to diversion of any ODA funding are eligible under the PoA [42]. The starting date of the PoA is considered as 30-09-2012 or the date of Registration of the PoA, whichever occurs later [42]. The length of the PoA is taken as 28 years [12].

It should be noted that the PoA started as a 'Town electrification program' to promote small scale hydro project activities in cities to support the growing economy of the island nation of PNG; as evident from the minutes of board of directors meeting held on 30-09-2010 [25]. However, soon the board of directors proposed and subsequently accepted a broader perspective to this 'town electrification program' in their meeting held on 03-05-2011 [26] and expanded the horizon of the earlier program to a lot bigger level by incorporating all types of renewable energy technologies with in the limits of small scale under this PoA and that day this PoA in its existing shape was conceptualized.

The information presented in the PoA documents on the technology to be applied is consistent with the actual planning and implementation of the PoA, confirmed in the following ways:

- On-site interview and review of data and information (see annex 2);
- An on-site visit to the place where the associated real case CPA is being implemented and interview with relevant stakeholder and personnel with knowledge of the project in attendance. In case of doubt, further cross checks through additional interviews were conducted. The technology types employed by this program are wide and incorporate almost all type renewable energy technologies and during the site audit the development of the first CPA that envisage a small hydro technology, could be assessed. Further the aspiration driving the PoA and the renewable energy potential of host country was assessed by interviews with representatives of PNG Power Ltd, Office of Climate Change and Development (DNA) and Department of Environment and Conservation.

In conclusion, TÜV SÜD confirms that the PoA project description, as included in the PoA-DD, is sufficiently accurate and complete in order to comply with the requirements of the CDM.

3.5 Eligibility Criteria for CPA Inclusion

The CME entity employs clear and unambiguous criteria for the inclusion of the CPA. The eligibility criteria's have been stated are verifiable with regards to the applicability of the applied methodology and the criteria given in EB 65 Annex 3. The key eligibility criteria set for the CPA inclusion into this PoA are as below. A CPA to be included in the proposed PoA shall:

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
1	<p>The CPA shall either be a new renewable energy power plant that:</p> <p>(a) installs 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) involves a capacity addition,</p> <p>(c) involves a retrofit of (an) existing plant(s);</p> <p>(d) involves a replacement of (an) existing plant(s) OR a renewable energy plant under expansion or retrofit.</p>	<p>This criterion is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14 and technology type and details would be confirmed by the feasibility study reports of applying CPAs. In DoE opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and appropriate.</p>
2	<p>Each Individual CPA shall include only renewable power plants which utilize a single technology – wind, solar, hydro, geothermal, tidal, wave, renewable biomass and biomass gasification.</p>	<p>This criterion is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14 and technology type and details would be confirmed by the feasibility study reports of applying CPAs. In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic.</p>
3	<p>The CPA shall be located within the geographical boundary of Papua New Guinea</p>	<p>This criterion is in line with the PoA framework and would be verified with Business license (operational License) of the CPA Implementer issued by PNG authorities or a Declaration from the CPA implementer confirming the boundary of the applying CPA is within the geographical territory of PNG and includes information on geographic reference (latitude and longitude), name and address of the CPA. GPS co-ordinates would also be verified from reliable online sources.</p> <p>In DoE opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and appropriate.</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
4	The CPA shall meet the applicability requirements of all the relevant CDM methodologies - AMS I.F. version 02 EB 61, AMS I.D version 17 EB 60, AMS I.A. version 14 EB 54 - as determined in section E.1 for the technologies included in the CPA.	<p>This criterion is in line with the PoA framework . Methodology specific applicability criteria have also been translated in to PoA eligibility criteria and the list of eligibility eriteria in PoA-DD covers all the methodological applicability requirements.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and hence acceptable.</p>
5	The CPA shall have an installed capacity of ≤ 15 MWe*	<p>This criterion is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14 and the project installed would be confirmed by the feasibility study reports, contract to equipment provider and Purchase Order placed for project related key equipments of applying CPAs. In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic.</p>
6	<p>Each component (sub-project) of the CPA shall supply the renewable electricity generated to :</p> <p>Option 1 - The relevant and clearly identified electricity distribution system -national/regional/mini grid.</p> <p>OR</p> <p>Option 2 - Individual households/users or groups of households/users included in the project boundary of the CPA.</p>	<p>Option 1 of this criterion is in line with the applicable methodologies AMS I.F. version 02, AMS I.D version 17 and Option 2 of this criteria is in line with the applicable methodology AMS I.A. version 14.</p> <p>For option 1 the electricity distribution system and pattern for each component (sub-project) in the CPA would be confirmed from Power Purchase Agreement with the grid company or a Certificate by utility company or officially published data, published literature, journals, and articles on internet.</p> <p>There is the list of Regional national grid in PNG, which is presented in Appendix 2 of PoA DD, the same has been cross checked by the web link :</p> <p>http://www.pngpower.com.pg/index.php/2012-01-10-06-42-16/information-on-regional-grids-in-png</p>

* If a unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the 15 MW applies only to the renewable component.

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
		<p>For option 2 the electricity distribution to households would be confirmed by the feasibility study reports and approval from local authorities and govt for each component (sub-project) in the CPA.</p> <p>In case of individual households, Baseline will be further checked at the CPA level with respect to the applicable methodology.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and acceptable.</p>
7	<p>The CPA shall in case of hydro power plants, not result in the construction of new reservoirs or in an increase in the capacity of existing reservoirs where the power density of the power plant is less than 4 W/m².</p>	<p>This criterion is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14.</p> <p>Compliance to this criterion would be verified with the Feasibility Study Report and/or other document for CPA mentioning the surface area of reservoir, technology, etc. or project reports submitted to govt. for approval and calculation of power density described in the SSC-CPA-DD.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the methodological requirements and hence acceptable.</p>
8	<p>The CPA shall in case of biomass power plants; no other biomass other than renewable biomass is used in the project plant.</p>	<p>This criterion is in line with the applicable methodologies viz. AMS I.F. version 02,</p> <p>Compliance to this criterion would be verified from the declaration from CPA implementer on the types of biomass that will be utilized in the CPA and biomass assessment survey carried out for the region.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the methodological requirements and hence acceptable.</p>
09	<p>The CPA shall in the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility;</p>	<p>This criterion is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14</p> <p>In case project supplies electricity to grid or mini grid, compliance to this criterion will be</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
	the added capacity of the units added by the project is lower than 15 MW and should be physically distinct from the existing units.	<p>verified from the Feasibility Study Report of the CPA that describes the CPA technology, users of electricity generated and the scenario of expansion or retrofit and/or Power purchase agreement with the grid company.. Applicable govt. approval and clearances would also be verified.</p> <p>The applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the methodological requirements and hence acceptable.</p>
10	In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit is not exceeding the limit of 15 MW.	<p>This criteria is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14</p> <p>Compliance to this criterion would be verified from the Feasibility Study Report of the CPA that describes the CPA technology, users of electricity generated and the scenario of expansion or retrofit and/or Power purchase agreement with the grid company, in case project supplies electricity to grid or mini grid. Applicable govt. approval and clearances would also be verified.</p> <p>The applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the methodological requirements and hence acceptable.</p>
11	If the unit added has both renewable and non-renewable components, 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>This criteria is in line with the applicable methodologies viz. AMS I.F. version 02, AMS I.D version 17, AMS I.A. version 14</p> <p>Compliance to this criterion would be verified from the Feasibility Study Report of the CPA that describes the CPA technology, users of electricity generated and the scenario of expansion or retrofit. Applicable govt. approval and clearances would also be verified.</p> <p>The applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the methodological requirements and hence acceptable.</p>
12	The CPA shall demonstrate	See comments below in rows 12 (a) to 12 (h).

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
	<p>additionality by meeting at least one of the criteria (criteria a – h) listed below :</p>	
a)	<p>The project activity involves technologies which are listed under the positive list of grid-connected/off grid renewable electricity generation technologies of Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68) and thus the project activity is considered automatically additional.</p> <p>The grid connected technologies currently listed under positive list are:</p> <ul style="list-style-type: none"> a) Solar technologies (solar photovoltaic and solar thermal electricity generation) b) Off-shore wind technologies c) Marine technologies (wave, tidal) d) Building-integrated wind turbines or household rooftop wind turbines of a size up to 100 kW <p>The following off-grid electricity generation technologies where the individual units do not exceed the thresholds indicated in parentheses with the aggregate project installed capacity not exceeding the 15 MW threshold are considered automatically additional :</p> <ul style="list-style-type: none"> (i) Micro/pico-hydro (with power plant size up to 100 kW); (ii) Micro/pico-wind turbine (up to 100 kW); (iii) PV-wind hybrid (up to 100 kW); (iv) Geothermal (up to 200 kW); (v) Biomass gasification/biogas (up to 100 kW) <p>Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size 1 of each unit is no larger than 5% of the small-scale CDM thresholds are</p>	<p>This criteria is in line with the Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68) and the positive list technologies eligible under the PoA are exclusively mentioned in the criteria. This applicability criterion is also in compliance with the Annex 03 of EB 65.</p> <p>It should be noted that the CPAs under the PoA are set-up on only one (or comparable) technology /ies.</p> <p>Technology employed by a CPA would be judged with the Feasibility study report of the project or the Government Approvals/ clearances or Purchase Order to the equipment provider for applicability to this criteria.</p> <p>The applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68), hence acceptable.</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
	considered automatically additional.	
b)	<p>As per 'Guidelines for Demonstrating Additionality of Microscale Project Activities'(Version 04)'</p> <p>Project activities up to five megawatts that employ renewable energy technology are additional if - The geographic location of the project activity is in one of the least developed countries or the small island developing States (LDCs/SIDS) or in a special underdeveloped zone (SUZ) of the host country.</p>	<p>This criteria is in line with the Guidelines for Demonstrating Additionality of Microscale Project Activities, Version 04 and Annex 03 of EB 65.</p> <p>It is to be noted that, according to the United Nations, PNG is classified as Small Island Developing State (SIDS) and the scale and location of the projects would be assessed from the Feasibility study report of the project or the Government Approvals/ clearances or Purchase Order to the equipment provider.</p> <p>The applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines for Demonstrating Additionality of Microscale Project Activities, Version 04, hence acceptable.</p>
c)	<p>As per 'Guidelines for Demonstrating Additionality of Microscale Project Activities'(Version 04)'</p> <p>The project activity employs specific renewable energy technologies/measures recommended by the host country designated national authority (DNA) and approved by the Board to be additional in the host country.</p>	<p>This criteria is in line with the Guidelines for Demonstrating Additionality of Microscale Project Activities, Version 04 and Annex 03 of EB 65.</p> <p>The scale of the projects would be assessed from the Feasibility study report of the project or the Government Approvals/ clearances or Purchase Order to the equipment provider. Approval from CDM EB in this regard is a prerequisite for qualification under this criteria of the PoA.</p> <p>The applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines for Demonstrating Additionality of Microscale Project Activities, Version 04, hence acceptable.</p>
d)	<p>As per the Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68)</p> <p>Investment barrier:</p>	<p>Under the PoA each component (sub-project) within a CPA,</p> <p>Under the PoA each component (sub-project) within a CPA shall show that the Project IRR of a each component within a CPA shall be below an applicable benchmark. A benchmark could be weighted average cost of capital, govern-</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
		<p>ment/officially approved financial benchmark, company internal financial benchmark, commercial bank lending rate. All benchmark options are listed in Appendix 5 of the PoA-DD.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68), hence acceptable.</p> <p>The CPA implementer will provide financial calculation spreadsheet to the CME in unprotected mode, containing all formula and assumptions.</p> <p>Appendix 5 of the PoA-DD lists all possible assumptions required for the CPA implementer to demonstrate financial additionality and to determine benchmark. The DoE assessed all the assumptions and their means of cross-check listed in Appendix 5 of the PoA-DD. In DoE's opinion the list is exhaustive and would assist in maintaining uniformity across CPAs with respect to additionality demonstration.</p> <p>Further, in line with CDM requirements a sensitivity analysis shall be conducted for all the three options, for variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues by varying the parameters by +/- 10%. Including but not limited to the Total Investment cost, Project revenue, O&M expenditure etc. In DOE's opinion the range of variations is reasonable in the context of the PoA. PP has also provided an investment analysis template with range of key input values for simplicity and better understanding and to maintain uniformity amongst CPAs.</p>
e)	<p>As per the Non-binding best practice examples to demonstrate additionality for SSC project activities (EB 35)</p> <p>Access-to-finance barrier- The project activity could not access appropriate capital without consideration of the CDM revenue.</p>	<p>A CPA can also opt for 'Access-to-finance barrier' to demonstrate additionality and the eligibility under this criteria would be judged with a 'Statement from the two financing banks' that the revenue from the CDM is critical in the approval of the loan or Loan agreement demonstrating that the investment is done by a company which also purchases the CERs or</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
		<p>Loan agreement demonstrating that a significant part of the project investment is provided upfront by a company as a pre-payment for expected CERs or Government / Bank / Development finance institute report indicating difficulty in access to finance or another document.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68), hence acceptable.</p>
f)	<p>As per the Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68)</p> <p>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>For CPAs citing 'Technological barriers' to demonstrate additionality would provide either a Analysis or Assessment report or other suitable evidence from relevant agency demonstrating non-availability of human capacity to operate and maintain the technology or Letter/report or other suitable evidence from relevant agency demonstrating unavailability of the technology and high level of technology risk.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68), hence acceptable.</p>
g)	<p>As per the Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68)</p> <p>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>For CPA or components in a CPA demonstrating the prevailing practice barrier would provide a Letter/report or other suitable evidence from relevant agency demonstrating a history of non- implementation of the technology/measures over a long time period or would demonstrate that the CPA is not a common practice as per 'Guidelines on Common Practice', Version02, EB 69, Annex 08.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65 and Guidelines on the demonstration of additionality of small scale project activities (version 09, EB 68), hence acceptable.</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
h)	The CPA is a 'First of it's kind' project in the geographical area.	<p>CPA or components in a CPA demonstrating itself as First of it's kind' shall be assessed based on publicly available information and/or confirmation from government departments/ industry association/ international association on market penetration of technology, demonstrating compliance to 'Guidelines of First-of - its- kind project activities', version 02, EB 69,Annex 07.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with UNFCCC requirements, hence acceptable.</p>
13	Implement a record keeping system and a procedure to avoid double accounting as described in A 4.4.1 (ii) of PoA-DD	<p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with para 14 b of Annex 03 of EB 65. CME would seek a confirmation from the CPA implementer that recording keeping system is in place and the CPA does not lead to double accounting of emission reductions, to confirm to this criteria.</p> <p>There will be the database for the CPAs and components/sub projects.</p>
14	The CPA shall establish procedures for De-bundling check for the CPAs as described in A 4.4.1 (iii)	<p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65. To affirm compliance to this criterion a CPA implementer would give a confirmation/declaration that the SSC-CPA is not a de-bundled component of a large scale CDM project activity as per guidance provided in section A.4.4.1 of PoA-DD.</p>
15	The CPA shall develop provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA as described in A 4.4.1 (iv)	<p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65. To affirm compliance to this criterion a CPA implementer would provide a declaration that it is aware of and have agreed that their activity is being subscribed to the PoA.</p>
16	The CPA shall have a start date after the commencement of PoA validation, which is 12/07/2011.	<p>To confirm that a CPA has a start date after the commencement of PoA validation, i.e. 12/07/2011 one of the following would be assessed by the CME:</p> <ol style="list-style-type: none"> 1. Earliest award of contract to equipment

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
		<p>supplier/contractor for the CPA</p> <ol style="list-style-type: none"> 2. Earliest purchase order placed for the project 3. Earliest construction contract for the project. 4. If the project is at early stage (i.e. none of the above or other similar documents reflecting real action is available have been issued) an undertaking from the CPA implementer that the start date of the CPA is after 12/07/2011. <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65.</p>
17	Conduct local stakeholder consultation at CPA level and environmental analysis as required by the Host country regulations.	<p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65. CME would seek the following: Meeting minutes of the stakeholder consultation, Photographs of the stakeholder consultation meeting conducted and Newspaper advertisement for stakeholder consultation meeting, from the CPA implementer to confirm applicability to this criteria.</p> <p>Furthermore, Environmental permit or EIA report would also be checked, if required as per the Host Country regulations.</p>
18	Confirm that funding from Annex I parties, if any, do not result in a diversion of official development assistance.	<p>CPA would provide a confirmation that funding from Annex I parties, if any, do not result in a diversion of official development assistance.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65.</p>
19	Confirm that the technology will not be substituted within the project period	<p>To confirm that the technology will not be substituted within the project period a Declaration from the CPA implementer that 'the technology will not be substituted within the project period' would be taken.</p> <p>In DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the</p>

Sr. No	Eligibility Criteria in PoA-DD	DOE's opinion
		requirements of Annex 03 of EB 65.
20	For CPA's requiring sampling, a sample plan shall be provided in the SSC-CPA-DD	DoE's opinion the applicability criterion and its cross-check measure/ method mentioned in PoA-DD is realistic and in compliance with the requirements of Annex 03 of EB 65. Applicability to this criteria would be confirmed from a confirmation from CPA implementer that a sampling plan has been included in SSC-CPA-DD Appendix 04 of PoA-DD (only where applicable).

The eligibility criteria would be checked for each CPA by the CME during CPA inclusion and would be validated and confirmed by the DOE during CPA validation. From the assessment above DOE concludes that the eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

3.6 Operational and Management Plan

A clear and transparent description of the operational and management arrangement has been established by PPL and a Operation and Management System document (document no. PSM029, version 01, dated 09-06-2012 has been provided to the DoE [[# 31](#)].

The CPA developer is responsible for the development of CPA-DD and CME and its representatives would be responsible for inclusion of CPA's into the PoA, monitoring of CPAs and distribution of CER revenues with the CPA implementer or developer. The CPA implementer is responsible for construction, installation and maintenance of the individual projects along with monitoring. The CME has developed an Operation and Management System document (document no. PSM029, version 01, dated 09-06-2012 which clearly specifies the monitoring procedures and elaborates the operational and management plan of the PoA in detail. This has been verified by the audit team [[# 31](#)].

There is a record keeping system for each CPA under the PoA. The CPAs will follow the CPA implementation plan. CME CDM Manager and CPA CDM Manager will be responsible for checking the records for each CPA before submission to the DOE [[#31](#)].

The CME CDM Manager along with CPA CDM manager will implement a document control system that ensures that the current versions of necessary documents for each CPA are available at the point of use [[#31](#)].

A procedure to avoid double counting has been indicated. This will be done by PPL through credentials check of the CPA and information available on UNFCCC website. Also, as each CPA will have a unique number in host country PNG, thus it can be checked whether a CPA under the PoA already is a registered CDM project or CPA is a part of another PoA from Office of Climate Change and Development (DNA) website.

As per EB 54, Annex 13, it is clearly explained that the CPA of PoA is exempted from performing de-bundling check.

Provisions are in place to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA. The agreement between PPL and the CPA

implementers ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA.

DoE has checked the operational and management system as per paragraph 17 of EB 65 Annex 3.

3.7 Monitoring Plan

Monitoring will be carried out for each individual CPA. For each CPA, all parameters included in section E.7.1 of the PoA-DD will be monitored by the implementing entity of the CPA according to the procedures and monitoring framework established in section E.7.2 of the PoA-DD and will be submitted to the managing entity or CME (PPL). The CME will store the data in an electronic database. All primary data with regards to monitoring of individual CPAs will be stored by the respective implementing agencies.

The data will be archived electronically and be stored for 2 years after the end of the crediting period of each CPA by the CME.

The installation location of the meters will be detailed in each CPA. The project entity will implement QA&QC measures to calibrate and guarantee the accuracy of metering and safety of the project operation. The metering devices will be calibrated and inspected properly and periodically as per standard industry norms and requirements. The grid company and the project owners are responsible for operation and maintenance of their respective electricity meters.

For CPA's involving household technologies (e.g solar rooftop, solar household system, etc) where in emission reduction will be calculated based on a sample survey a detailed sampling plan has been provided in the generic CPA-DD as per the 'Standard for Sampling and surveys for CDM Project Activities and Programme of Activities', 'Best Practices examples focusing on sample size and reliability calculations' and other relevant guidelines/procedure approved by CDM Executive Board.

Verification will occur either separately for each CPA or in groups. In any case, data shall be verified for each CPA and the verification status of each CPA will be recorded by the managing entity in the database.

The monitoring plan for parameters included in section E.7.1 of PoA-DD will be implemented for each SSC-CPA with assistance from the coordinating entity as follows:

- The CPA owner will implement each SSC-CPA individually and monitor and record all parameters included in section E.7.1 of PoA-DD.
- The coordinating entity will provide guidance to CPA owner on how monitoring should be conducted and data should be collected in regards to emission reductions calculation.
- The CPA owners will provide data on monitored parameters included in section E.7.1 of PoA-DD to the coordinating entity.
- The coordinating entity will document and store all parameters included in section E.7.1 of PoA-DD provided by CPA owners in an electronic database, while primary data will be stored by SSC-CPA owner

For each Project Activity under a CPA, all relevant parameters defined under Section E.7.1 of PoA-DD will be monitored by the Project Implementer according to the procedures and monitoring framework. The monitoring data will be submitted to the CME, which will check and finalize the monitoring documentation for verification by the DOE and store the data in a database in such a way that the status of verification can be determined for each CPA at any time. The CME will follow the procedure described below for monitoring:

Hence it could be confirmed that the CME would be able to implement the monitoring plan as specified in the PoA-DD.

3.8 Baseline and Monitoring Methodology

3.8.1 Applicability of the selected methodology

The following methodologies will be applied individually or in combination within each CPA as well as across several CPAs in a PoA – AMS I.F version 02, EB 61; AMS I.D version 17, EB 60 ; AMS I.A version 14, EB 54. All the 3 methodologies have mutually exclusive applicability conditions with regards to supply of electricity. In case of the PoA each CPA under this PoA can apply only one technology type, but can have a no. of projects (components) of same technology and each component can have different electricity evacuation patterns depending on which more than one methodology can be applied by a single CPA. Further, in line with para 16 of Annex 27 of EB 69, General Guidelines for SSC CDM Methodologies (Version 19.0); for methodology combination, AMS-I.A, AMS-I.D and AMS-I.F any assessment of cross effects is not required.

For the PoA in line with Annex 3, EB 65 paragraph 29 (d), Combinations of methodologies vary across CPAs of a PoA, The PoA aims to assist development of all small-scale renewable energy power plants (including wind, solar, hydro, geothermal, tidal, wave, renewable biomass and biomass gasification). The CME, PNG Power Limited (PPL), is a fully integrated power authority and it is responsible for the generation, transmission, distribution and retailing of electricity throughout PNG and servicing individual electricity consumers. The CME aims to work closely with other developers of the renewable energy power plants to facilitate development of renewable energy in PNG.

Each CPA under the PoA will fall under one of the five types discussed below. The methodology selection will be carried out based on the table below:

	CPA Type	AMS-I.A	AMS-I.D	AMS-I.F
1	CPA involves project(s) that supplies electricity to a national/regional grid			
2	CPA involves project(s) that displaces grid electricity consumption (e.g. grid import) and/or captive fossil fuel electricity generation at the user end (excess electricity may be supplied to a grid)			
3	CPA involves project(s) that supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)			
4	CPA involves project(s) that supplies electricity to a mini grid system where in the baseline all generators use exclusively fuel oil and/or diesel fuel			
5	CPA involves project(s) that supplies electricity to household users (included in the project boundary) located in off grid areas			

Further to this PP has provided a list of combination of RE technologies covered under this PoA as Appendix I to the PoA-DD.

The assessment was carried out for each applicability criterion and included, among other checks, a compliance check of the PoA with the applicability conditions in regard to baseline setting and eligible project measures. This assessment also included the review of secondary sources to demonstrate the compliance with applicability conditions.

The methodology-specific protocol, included in Annex 1, documents the assessment process. The results of the compliance check as well as relevant evidence are detailed in the protocol Annex 1 and the information reference list under Annex 2.

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the PoA project activity. Emission sources, not addressed by the applied methodology and expected to contribute more than 1% of the overall expected average annual emission reductions, have not been identified.

3.8.2 CPA boundary

The geographical boundary for the PoA is Papua New Guinea. The coordinate range of PNG is 0.00° to 14.00° latitude and longitude 141.00° to 160.00° [11]. However, specific boundary of a CPA would be defined in each CPA at the CPA level.

The project boundary encompasses the power project site from the source intake to the substation or interconnection point where the electricity is delivered to the grid/ mini-grid and also the power plants connected to the Grid.

The CPA boundary was assessed considering information gathered during site audit, interviews [01], and secondary evidences received on the design of the PoA.

3.8.3 Baseline identification

The PoA is a voluntary coordinated action as evident through implementation plan. As per the PoA-DD, the baseline scenario for the CPAs under the PoA needs to be established based on methodology selected in section E.1 of the PoA-DD. Depending on the technology and type of service the baseline scenario for the CPA's will be one of the following:

- ✓ Electricity generation in a national or regional grid.
- ✓ Import of electricity from grid and/or captive fossil fuel electricity generation at the user end.
- ✓ Electricity generation in mini grid system where in the baseline all generators will be using fossil fuels partly or fully.
- ✓ For off grid, fuel consumption of the technology in use or that would have been used in the absence of the project activity to generate the equivalent quantity of energy.

DoE confirms that all the above baseline scenarios are in accordance with the existing legal requirements/laws. Moreover, there are no mandatory laws/regulations or policies within the host country to generate electricity using renewable energy resources [14].

The information presented in the PoA-DD has been verified during the on-site visit the sources referenced in the PoA-DD have been quoted correctly.

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions used for project activity calculations, TÜV SÜD considers that the identified baseline scenarios are reasonable.

Taking the definition of the baseline scenario into account, TÜV SÜD confirms that all relevant CDM requirements, including relevant and/or sectoral policies and circumstances, have been identified correctly in the project PoA-DD.

A verifiable description of the baseline scenario has been included in the PoA-DD.

TÜV SÜD confirms the following statements:

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

3.9 Additionality

3.9.1 Prior consideration of the clean development mechanism

As the start date of the PoA is 30-09-2012, after the date of publication of PoA-DD (12-07-2011), prior consideration of CDM do not apply, in line with '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' (EB60 Annex 26, Para 03).

3.9.2 Additionality of PoA

The additionality of the programme has been presented in section A.4.3 of the PoA-DD. The approach used in the PoA-DD has been assessed initially through on-site discussions [#01].

As prescribed in the Simplified modalities and procedures of small scale project activities, additionality shall be demonstrated as per "Guidelines on the demonstration of additionality of small-scale project activities" Version 09, EB68, Annex 27 and "Guidelines for demonstrating additionality of Micro-scale project activities" version 4, EB 68, Annex 26. In line with para 4 of EB 60 Annex 26, and para 08,09,10 of Annex 03 of EB 65, CPAs would confirm additionality by means of the eligibility criteria. All additionality related requirements in the above mentioned additionality tools have been translated to eligibility criteria in section 3.5 of this report above.

3.9.3 Approach for demonstrating CPA additionality

As per the paragraph 2 (a) of the "Guidelines for demonstrating additionality of Micro-scale project activities" EB 68, Annex 26, project activities up to 5 megawatts that employ renewable energy as their primary technology are additional if the geographic location of the project activity is in LDCs/SIDs or in a special underdeveloped zone of the host country identified by the Government..

According to the United Nations, PNG is classified as Small Island Developing State (SIDS)*. Hence under the proposed PoA, renewable energy CPAs having up to 5 MW installed capacity are considered to be additional as per the latest Micro-scale additionality guideline.

Also as per paragraph 2 (d) of the above tool, project activities up to 5 MW that employ renewable energy as their primary technology are additional if the project activity employs specific renewable

* <http://www.un.org/special-rep/ohrlls/sid/list.htm>

energy technologies/measures recommended by the host country designated national authority (DNA) and approved by the CDM Executive Board to be additional in the host country.

Further for CPAs in the capacity range of greater than 5 and upto 15 MW, the project proponent will follow the current SSC guidelines as per the "Guidelines on the demonstration of additionality of small-scale project activities" Version 09, EB68, Annex 27'. Inline with this tool, CPA implementers will provide an explanation to show the proposed CPA or component of CPA would not have occurred due to at least one of the following barriers:

- a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions;
- 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;
- 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;
- 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, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.

In case the CPA involves technologies which is listed under the positive list of grid-connected renewable electricity generation technologies of "Guidelines on the demonstration of additionality of small-scale project activities" Version 09, EB68, Annex 27, the CPA is considered automatically additional. The technologies currently listed under positive list are:

- a) Solar technologies (solar and solar thermal electricity generation)
- b) Off-shore wind technologies
- c) Marine technologies (wave, tidal)
- d) Building-integrated wind turbines or household rooftop wind turbines of a size up to 100 Kw
- e) The following off-grid electricity generation technologies where the individual units do not exceed the thresholds indicated in parentheses with the aggregate project installed capacity not exceeding the 15 MW threshold:
 - (i) Micro/pico-hydro (with power plant size up to 100 kW);
 - (ii) Micro/pico-wind turbine (up to 100 kW);
 - (iii) PV-wind hybrid (up to 100 kW);
 - (iv) Geothermal (up to 200 kW);
 - (v) Biomass gasification/biogas (up to 100 kW);
- f) Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size 1 of each unit is no larger than 5% of the small-scale CDM thresholds.

PP has provided an investment analysis template with range of key input values for simplicity and to maintain uniformity amongst CPAs. DoE has assessed the input values against the references provided by the PP. In DoE's opinion range of input values are taken from reliable sources and their application is appropriately justified.

All additionality related requirements in the above mentioned additionality tools have been translated to eligibility criteria in section 3.5 of this report above. These eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA

3.10 Emission Reductions from a typical CPA

The procedures provided in the methodology are correctly depicted in the PoA-DD and the template CPA-DD.

The formulae are correctly presented in the PoA-DD for the determination of emission reductions. However, template CPA-DD does not present any methodology specific formulae as it equally represents all the three applicable methodologies.

TÜV SÜD has assessed the formulae for emission reduction calculations. Corresponding formulae in the calculation spreadsheet template have also been cross-checked and verified. The parameters and equations presented in the PoA-DD, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has been made to ensure consistency between all the formulae presented in the PoA-DD, spreadsheet template, and all three applicable methodologies viz. AMS I.F version 02, EB 61; AMS I.D version 17, EB 60; AMS I.A version 14, EB 54.

The assumptions and data used to determine the emission reductions are listed in the PoA-DD and all the sources have been checked and are reasonable. Based on the information reviewed it is confirmed that the sources used are correctly quoted and interpreted in the PoA-DD.

The baseline scenario for the CPAs under the PoA needs to be established based on methodology selected in section E.1 of the PoA-DD. Depending on the technology and type of service the baseline scenario for the CPA's will be one of the following:

- ✓ Electricity generation in a national or regional grid.
- ✓ Import of electricity from grid and/or captive fossil fuel electricity generation at the user end.
- ✓ Electricity generation in mini grid system where in the baseline all generators use exclusively fuel oil and/or diesel fuel.
- ✓ For off grid, fuel consumption of the technology in use or that would have been used in the absence of the project activity to generate the equivalent quantity of energy.

DoE confirms that all the above baseline scenarios are in accordance with the existing legal requirements/laws. Moreover, there are no mandatory laws/regulations or policies within the host country to generate electricity using renewable energy resources [#14].

The Grid Emission factor would be determined according to the 'Tool to calculate the Emission Factor for an electricity system' unless the methodology specifies otherwise. For grid, mini grid the emission factor will be calculated as per procedure provided in AMS I.D i.e. conservative of emission factor as per latest version of "Tool to calculate the emission factor for an electricity system" or weighted average emissions (in tCO₂/MWh) of the current generation mix. For renewable electricity generation units that supply individual households/users or groups of households/users included in the project boundary default emission factors in line with the applied version of the methodology AMS I.A would be used. For captive the emission factor will be calculated as per the procedure provided in the latest version of "Tool to calculate baseline, project and/or leakage emissions from electricity consumption".

As this is a renewable energy project, the leakage emissions are considered to be zero. Project activity emissions wherever applicable have been considered; primarily for CO₂ emissions from on-site consumption of fossil fuel and electricity consumption by the project activity. Project activity emissions for hydro projects and for geothermal projects would be done in line with the methodology.

In summary, the representation of calculations of emission reductions is considered correct and is replicable. The baseline methodologies have been applied correctly according to requirements.

3.11 Monitoring Plan of a typical CPA

The monitoring plan for parameters included in section E.7.1 will be implemented for each SSC-CPA with assistance from the coordinating entity as follows:

- SSC-CPA owner will implement each SSC-CPA individually and monitor and record all parameters included in section E.7.1 of PoA-DD.
- The coordinating entity or CME will provide guidance to SSC-CPA owner on how monitoring should be conducted and data should be collected in regards to emission reductions calculation.
- The SSC-CPA owners will provide data on monitored parameters included in section E.7.1 of PoA-DD to the coordinating entity.
- The coordinating entity will document and store all parameters included in section E.7.1 of PoA-DD provided by SSC-CPA owners in an electronic database, while primary data will be stored by SSC-CPA owner

3.11.1 Parameters determined ex-ante

The parameters that are determined ex-ante are:

$EF_{CO_2, y, \text{grid/mini-grid/captive}}$ - Emission factor of the grid/mini-grid/captive power plant

$EF_{CO_2, y, \text{grid}}$ - CO_2 emission factor of the grid (national or regional) in year y

$EF_{CO_2, y}$ ($EF_{CO_2, \text{diesel}}$)- CO_2 emission factor in year y for the baseline energy

GWP_{CH_4} : Global warming potential of methane valid for the relevant commitment period.

EF_{Res} : Default emission factor for emissions from hydro power reservoirs.

The Default emission factor for reservoir emissions is taken from the value as mentioned in EB 23 decision. Global warming potential of methane has been taken from IPCC guidelines. CO_2 emission factor in year y for the baseline energy is the default value for Option 1 and 2 under applied version of methodology AMS I.A. For grid/mini grid the emission factor will be calculated as per procedure provided in AMS I.D i.e. conservative of emission factor as per latest version of “Tool to calculate the emission factor for an electricity system” or weighted average emissions (in tCO_2/MWh) of the current generation mix. For captive the emission factor will be calculated as per the procedure provided in the latest version of “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”. In summary, the parameters determined ex-ante are conservative and appropriate and they have been presented correctly according to requirements of the applied methodology.

3.11.2 Parameters determined ex-post

The parameters that are to be monitored ex-post are:

$EG_{B, L, y}$ - Quantity of net electricity generation supplied by the project plant/unit to the grid in year y

$EF_{CO_2, i, y}$ - Weighted average CO_2 emission factor of fuel type i in year y

NCV_i - Weighted average net calorific value of fuel type i in year y

$FC_{i, j, y}$ - Quantity of fuel type i combusted in process j during the year y

$EG_{\text{facility}, y}$ - Quantity of net electricity supplied to the grid in year y

$EG_{\text{add}, y}$ - The total net electrical energy supplied to a grid in year y by all units, existing and new project units

$EG_{actual,y}$ - The actual, measured net electrical energy produced and supplied to the grid by the existing units in year y

$EG_{i,y}$ - The estimated annual output of the renewable energy technologies of the group of i renewable energy technologies installed

$w_{steam,co2,y}$ - Average mass fraction of carbon dioxide in the produced steam in year y

$w_{steam,CH4,y}$ - Average mass fraction of methane in the produced steam in year y

$M_{steam,y}$ - Quantity of steam produced in geothermal projects in year y

A_{PJ} - Area of the single or multiple reservoirs measured in the surface of the water

$Q_{Biomass}$ - Quantity of biomass consumed in year y

$MC_{Biomass}$ - Moisture content of the biomass residues

$NCV_{Biomass,k}$ - Net calorific value of biomass residue type k

$EC_{PJ,j,y}$ - Quantity of electricity consumed by the project electricity consumption source j in year y

$TDL_{j,y}$ - Average technical transmission and distribution losses for providing electricity to source j in year y

CPAs would adhere to Operational and Management System for the PoA, Version 01 (Doc. No. PSM029) [#31], developed by the CME to control metering and monitoring irregularities. Calibration requirements, record keeping and archiving procedures are also defined herein.

3.12 Stakeholder Consultation

It has been indicated that the local stakeholder consultation would be done at the CPA level.

3.13 Environmental Analysis

The environmental impacts analysis will be done at CPA level.

Is is indicated in the PoA-DD that the environmental analysis takes place at CPA level based on Environmental Act of 2000, Environment Regulation 2002, and the guidelines to conduct EIA and preparation of an EIA Statement, 2004. The Acts and Regulation pertaining to EIA are governed by Department of Environment and Conservation (DEC) [#20,32,33,34].

The Environment (Prescribed Activities) Regulation 2002 [#20] categorizes projects as:

- “Prescribed Activities” in two schedules according to the anticipated potential environmental impact. Schedule 1 consists of Level 2 activities that are subdivided into two categories (Category A and B):
- Category B has 13 sub-categories with sub-category 10 addressing Energy Production.
- Item 10.1 in this sub-category includes Operation of renewable energy plants with a capacity of more than 2 MW.

Projects that have more adverse environmental impact are designated in Schedule 2 as Level 3 Activities. All renewable energy projects that meet any of these requirements are required to prepare a ‘Notification of Preparatory Works’ that is submitted to the Department of Environment and Conservation (DEC) that will review the Notification and then advise the level of investigation required.

If the CPA is classified as 2B then an Environmental Application is completed and sent to DEC for review. If it is approved DEC will issue an Environmental Permit which allows work to commence on the site.

The CPAs under the PoA will prepare a 'Notification of Preparatory Works' and will submit to DEC for their review and subsequently advise on level of investigation required. Further, if a CPA is classified as 2B, an Environmental Application for the CPA will be completed and submitted to DEC for approval and issuance of Environmental Permit. For the first CPA 'Divune Hydropower Project, Oro Province, Papua New Guinea' applications for Environment Permit was made on 06-06-2011 and was checked by the DoE during the on-site audit [[#23](#)].

4. Comments by Parties, Stakeholders and NGOs

TÜV SÜD published the project documents on the UNFCCC website and invited comments by affected Parties, stakeholders, and non-governmental organisations during a 30 day period.

All key information gathered is presented in the table below:

GSP Comments

website: http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/KGHGC1KOOSFUZW07K5EZBAFSG28M2A/view.html	
Starting date of the global stakeholder consultation process: 12-07-2011	
Comment submitted by: None	Issues raised: -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM PoA project:

Programme of Activities (PoA) for sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)

Standard auditing techniques have been used for the validation of the project. A methodology-specific protocol for the PoA has been prepared to conduct the audit in a transparent and comprehensive manner.

The review of the PoA design documentation, subsequent follow-up interviews, and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In the opinion of TÜV SÜD, the PoA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV SÜD recommends the PoA project for registration by the CDM Executive Board.

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 are additional to any that would occur in the absence of the project activity. Given that the PoA is implemented as designed, the CPAs under the same are likely to achieve emission reductions.

The validation has been performed following the requirements of the latest version of the CDM VVM and on the basis of the contractual agreement. The single purpose of this report is its use during the registration process as part of the CDM project cycle. Based on the work described in this report, nothing has come to our attention that causes us to believe that any project component or issue has not been covered by the validation process.

Pune, 23/11/2012



Certification Body "Environment and Energy"
TÜV SÜD South Asia Pvt Ltd

Validation of the CDM PoA:
Programme of Activities (PoA) for sustainable Renewable Energy Power Generation
Papua New Guinea (PNG)



Annex 1: Validation Protocol

Validation Protocol CDM-PoA-DD

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Table 1 Conformity of CDM Programme of Activities

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A. General description of small-scale programme of activities (PoA)				
A.1. Title of the small-scale programme of activities (PoA)				
A.1.1. Does the used PoA title clearly enable to identify the unique CDM programme of activities?	2	Yes, the title 'Programme of Activities (PoA) for Sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)' clearly enables us to identify the uniqueness of the CDM programme of activities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indications concerning the revision number and the date of the revision?	2	Yes, the GSP-PoA-DD indicates version number 1.1 with date 08/07/2011.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the programme's history?	See table 2	<p>Start date of the PoA is indicated in the GSP-PoA-DD as 01/09/2011.</p> <p><u>Clarification Request No. 1.</u></p> <p>PP shall clarify that how is the date of registration of PoA- DD as August 2011 realistic when the site audit is conducted in January 2012?</p> <p><u>Clarification Request No. 2.</u></p> <p>Provide the timeline of PoA-DD history and project implementation and major breakthroughs in implementation. PP shall provide documentary evidences supporting the timeline.</p>	CR	<input checked="" type="checkbox"/>
A.2. Description of the small-scale programme of activities				

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<p>A.2.1. Is the description delivering a transparent overview of the general operating and implementing framework of the PoA?</p>	<p>Yes, it has been described clearly that PNG Power Limited (Hereafter referred as PPL) will be the coordinating/managing entity of the PoA. The CDM programme activities (CPAs) included in the PoA will be implemented in the Independent State of Papua New Guinea. The SSC-PoA involves renewable energy based power plants delivering energy to main grid, isolated grid, directly to users (Captive) or to individual households as CPAs.</p> <p><u>Corrective Action Request No.1.</u></p> <p>The description of PoA-DD clearly indicates in section A.2 of PoA-DD that the PoA would include renewable energy generation based projects viz. Wind, Solar, Photovoltaic, Hydro, Geothermal, Tidal, Wave, and Renewable Biomass. However the subsequent sections of the PoA-DD, including monitoring parameters only infer inclusion of Hydro, Geothermal and Biomass based projects in the PoA. PP should clearly state in the PoA-DD all technology types to be included in the PoA. Further, PP shall describe the existing grid system in PNG citing necessary documentary evidences. Also PP shall ensure that grid definition is consistent throughout the PoA-DD.</p> <p><u>Corrective Action Request No.2.</u></p> <p>PoA shall define the typical CPAs in order to demonstrate the baseline, additionality etc. Please refer the para 29 of EB 65 annex 3.</p> <p><u>Clarification Request No. 3.</u></p> <p>Provide the reference to the statement in section A.2 of the PoA-DD, 'Solar energy is among the largest potential sources in PNG. Average insolation in much of the country is 400–800 W/m², with 4.5 to 8 sunshine hours a day'.</p>	<input checked="" type="checkbox"/>	
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A.2.2. Is the policy/measure or stated goal of the PoA clearly and unambiguously presented?	See table 2	<p>Yes, it has been clearly presented that the PoA objective is to support small scale renewable energy based power projects in Independent State of Papua New Guinea by providing a standardized and streamlined access to CDM services. See CAR in section A.4.3.1</p> <p><u>Clarification Request No. 4.</u></p> <p>Provide the reference to the statement in section A.2 of the PoA-DD, 'The national electrification rate in PNG is less than 10%. Approximately 90% of the population of PNG live in highly dispersed and culturally diverse rural settlements that are isolated from each other by rugged topography'.</p>	CAR	<input checked="" type="checkbox"/>
A.2.3. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	23,2 5,26, 45	<p>Documents verified during the onsite audit are listed below:</p> <ul style="list-style-type: none"> • Minutes of Board Chairman Meeting dated 30-09-2010 • Heads of Agreement between PNG Power Limited and Asian Development Bank, dated 22-09-2010. • Application to Department of Environment and Conservation for Environment permit, dated 06-06-2011. • Management Information Paper, expanding the scope of PoA to other renewable technologies, dated 03-05-2011. <p>See CR in section A.1.3</p>	CR	<input checked="" type="checkbox"/>
A.2.4. Is the information provided by these proofs consistent with the information provided by the PoA-DD?	See table 2	See CR in section A.1.3	CR	<input checked="" type="checkbox"/>
A.2.5. Is there a valid confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity?	See table 2	<p>Yes, it is indicated in PoA –DD that proposed PoA is a voluntary action by the coordinating/managing entity – PPL.</p> <p><u>Clarification Request No. 5.</u></p> <p>Submit evidence to show that the proposed PoA is a voluntary action by the coordinating/managing entity.</p>	CR	<input checked="" type="checkbox"/>

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A.2.6. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?	2,42	The description of technology provided in the PoA-DD is generic and more specific information pertaining to the technology would be provided in individual CPAs; technology would vary with individual technology types employed by projects as CPAs. However, PoA-DD provides a broader picture with respect to the technological description that is sufficient and transparent in evaluating project's impact on the greenhouse gas balance. Also refer CAR in section A.2.1 and A.4.2.2	CAR	<input checked="" type="checkbox"/>
A.2.7. Is the brief explanation how the programme will reduce greenhouse gas emission transparent and suitable?	2,42	Yes, a brief explanation is provided in the PoA-DD as to how the programme will reduce greenhouse gas emission transparent and suitable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3. Coordinating/managing entity and participants of SSC-PoA				
A.3.1. Is the form required for the indication of project participants correctly applied?	See table 2	<u>Corrective Action Request No.3.</u> PP should clearly indicate in section A.3 if the Project participants are Public or Private entities.	CAR	<input checked="" type="checkbox"/>
A.3.2. Is the participation of the listed entities or Parties in the PoA confirmed by each one of them?	See table 2	PPL and Asian Development Bank (Trustee of the Future Carbon Funds) have been indicated as the project participant. <u>Clarification Request No. 6.</u> PP shall provide the DoE, letter of approval from DNA or proof of application for host country approval.	CR	<input checked="" type="checkbox"/>
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PoA-DD (in particular annex 1)?	1,2,4 2 Also See table 2	Yes. See PPs response to CR in section A.3.2	CR	<input checked="" type="checkbox"/>
A.3.4. Is it evident that the coordinating or	1,2,4	It has been mentioned in the PoA-DD that coordinating or managing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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managing entity of the PoA is the entity which communicates with the Executive Board (EB)?	2	entity of the PoA is PPL.		
A.3.5. Is it evident whether individual project participants are involved in one of the CPAs related to the PoA?	16,2 3,25, 26,4 5,47, 48	<p>Yes, it is evident from the following documents collected during on-site audit:</p> <ul style="list-style-type: none"> • Minutes of Board Chairman Meeting dated 20-09-2010 • Heads of Agreement between PNG Power Limited and Asian Development Bank, dated 22-09-2010. • Application to Department of Environment and Conservation for Environment permit, dated 06-06-2011. • Management Information Paper, expanding the scope of PoA to other renewable technologies, dated 03-05-2011. • Report and Recommendation of the President to the Board of Directors, Proposed Multitranchise Financing Facility Papua New Guinea: Town Electrification Investment Program. Report by Asian Development Bank (August 2010). • Prior consideration of the CDM form submitted to DNA and UNFCCC. • Acknowledgement letter, for receipt of 'Prior Confirmation CDM form' from Office of Climate Change and Development (OCCD), Papua New Guinea, i.e. the DNA, dated 04-10-10. 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4. Technical description of the small-scale 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 im-	See table 2	<p>The CPAs under the PoA will be implemented throughout the host country – Independent State of Papua New Guinea.</p> <p><u>Corrective Action Request No.4.</u></p> <p>Include the Geographical Map and coordinate range of the Host</p>	CAR	<input checked="" type="checkbox"/>

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plemented?		country in section A.4.1.2.		
A.4.1.2. Is the consideration of all applicable national and/or sectoral policies and regulations of each host country within the boundary evident and substantiated?	See table 2	The information on all applicable national and/or sectoral policies and regulations which are relevant to the PoA has been provided in section A.2 of PoA-DD. <u>Corrective Action Request No.5.</u> PP shall indicate in section A.2 of the PoA-DD the list of mandatory policies or regulations for the generating renewable energy based power in the region.	CAR	<input checked="" type="checkbox"/>
A.4.1.3. Is/are the Host Party(ies) stated?	1,2,2 3,42	Independent State of Papua New Guinea has been stated as the host party.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2. Description of a typical small-scale CDM programme activity (CPA)				
A.4.2.1. Is it unambiguously stated which technology or measures are to be employed by the SSC-CPA?	2,31, 42	The description of technology provided in the PoA-DD is generic and more specific information pertaining to the technology would be provided in individual CPAs; technology would vary with individual technology types employed by projects as CPAs. However, PoA-DD provides a broader picture with respect to the technological description that is sufficient and transparent in evaluating project's impact on the greenhouse gas balance. Also refer CAR in section A.2.1 and A.4.2.2	CAR	<input checked="" type="checkbox"/>
A.4.2.2. Is the type and category of project activities correctly identified and indicated?	See table 2	<u>Corrective Action Request No.6.</u> Indicate the type and category (all category types) of the project activity to be included as independent CPAs in section A.4.2.1 of the PoA-DD and indicate specification of each type of technologies/ measures to be employed in the PoA activity in line with 'development and update of eligibility criteria' page03, Annex 03 of EB 65. <u>Corrective Action Request No.7.</u> List of eligibility criteria for inclusion of SSC-CPA in the PoA in section A.4.2.2 does not discuss applicability of CPAs with respect to de-	CAR	<input checked="" type="checkbox"/>

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		bundling, avoidance of double counting, public funding not registered as a standalone project, uniquely identified geographical boundary. PP should ensure that the eligibility criteria for inclusion of SSC-CPA in the PoA in section A.4.2.2 is in line with the guidelines laid down in Annex 03 of EB 65 report.		
A.4.2.3. Does the technical design of the project activity reflect current good practices?	2,17, 42	The PoA would generate energy from renewable source of power and would connect to grids or directly to households and users thus reflect current good practices. This clearly reflects in Power Sector Development Plan for Papua New Guinea, published in April 2009, prepared by Asian Development Bank, the regional and local grids in PNG are run mainly by Diesel run power plants; promotion of renewable technologies through this PoA program would enable the country to become self reliant and independent. This would also fuel uniform economic growth across the country, helping the PNG government alleviate poverty and illiteracy. Also refer to CAR in section A.2.1 and A.4.2.2	CAR	<input checked="" type="checkbox"/>
A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I-countries to the host country (ies)?	See table 2	<u>Corrective Action Request No.8.</u> Indicate in section A.4 whether the implementation of the project activity require any technology transfer from Annex-I-countries to the host country.	CAR	<input checked="" type="checkbox"/>
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	2,42	Yes, the technology implemented by the project activity is expected to be environmentally safe and Environmental Analysis of the same would be done at CPA level as mentioned in Section C.1. Also refer to CAR in section A.2.1 and A.4.2.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.6. Is the information provided in compliance with actual situation or planning?	See table 2	Refer to CR in A.1.3	CR	<input checked="" type="checkbox"/>
A.4.2.7. Does the project use state of the art technology and / or does the technology	See table	Refer to CAR in section A.2.1 and A.4.2.2	CAR	<input checked="" type="checkbox"/>

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result in a significantly better performance than any commonly used technologies in the host country?	2			
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	See table 2	Clarification Request No. 7. PP shall provide evidence to show that the technology would not be substituted within the project period.	CR	<input checked="" type="checkbox"/>
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	2,42	To be analysed at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.10. Is information available on the demand and requirements for training and maintenance?	2,42	To be analysed at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.11. Is a schedule available for the implementation of the project and are there any risks for delays?	See table 2	See CR in section A.1.3	CR	<input checked="" type="checkbox"/>
A.4.2.12. Are there clear and unambiguous eligibility criteria for the inclusion of a SSC-CPA into the PoA?	2,3,4 2	Yes, the eligibility criteria has been stated clearly with regards to the applicability of the applied methodologies AMS.I.D, version 17; AMS.I.F, version 02; AMS.I.A, version 14. However, PP should ensure that the eligibility criteria for inclusion of SSC-CPA laid down in Annex 03 of EB 65 report is met. See CAR 7.	CAR	<input checked="" type="checkbox"/>
A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a SSC-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)				
A.4.3.1. Is it evident and clearly documented that the proposed PoA is a voluntary coordinated action?	See table 2	It has been clearly documented in the PoA-DD that proposed PoA is a voluntary coordinated action. Clarification Request No. 8. PP shall justify giving proper evidence that the project activity is a voluntary coordinated action and that the PoA is not implementing a	CAR	<input checked="" type="checkbox"/>

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		mandatory policy/ regulation.		
A.4.3.2. Is it evident and substantiated that this voluntary coordinated action would not be implemented in the absence of the PoA?	See table 2	<p>According to the United Nations, PNG is classified as Small Island Developing State (SIDS).</p> <p><u>Corrective Action Request No.9.</u></p> <p>Provide justification to substantiate that this voluntary coordinated action would not be implemented in the absence of the PoA.</p> <p><u>Corrective Action Request No.10.</u></p> <p>PP should present its argument on additionality in line with the latest EB guidelines on Micro scale project activities and small scale project activities and the eligibility criteria shall be sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.</p> <p><u>Corrective Action Request No.11.</u></p> <p>There is lack of information in the PoA DD about financial analysis to be done at CPA level:</p> <ul style="list-style-type: none"> • PP shall provide clear set of additionality criteria, both technology wise and the methodology wise. • PP shall also provide a template for each financial analysis indicators viz. IRR, NPV, Simple cost analysis etc., (as mentioned in the PoA DD under eligibility criteria.) which could act as generic template to demonstrate the additionality based on financial analysis. Please refer the EB 65 annex 3 para 11 & 12. 	CAR	<input checked="" type="checkbox"/>
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?	See table 2	See CAR in section A.4.3.1	CAR	<input checked="" type="checkbox"/>
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	See table 2	See CAR in section A.4.3.1	CAR	<input checked="" type="checkbox"/>

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lead to a greater 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?	See table 2	<u>Corrective Action Request No.12.</u> A description of the operational and management arrangements established by PP should be provided in the PoA-DD in line with para 17 of EB 65, Annex 3. Mention clearly the responsibilities and institutional arrangements for data collection archiving.	CAR	<input checked="" type="checkbox"/>
A.4.4.2. Is there a record keeping system for each CPA under the PoA?	2,31, 42	A central Database would be maintained by the PP that would include the following information on uniquely identified CPAs: <ul style="list-style-type: none"> ✓ Name of the CPA. ✓ Implementing entity of the CPA. ✓ Contact Details of Implementing entity (Address / Contact person /Phone/e-mail/fax). ✓ Technology of the CPA. ✓ Installed capacity of the CPA. ✓ Location of the CPA. ✓ The record of technical specification of each renewable energy plant participating in the PoA. <p>After from the above this database would contain a system/procedure to avoid double counting and to do de-bundling check.</p> <p>Also refer to CAR in section A.4.4.1</p>	CAR	<input checked="" type="checkbox"/>
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?	2,31, 42	Yes, the system to avoid double counting has been indicated. This would be done by Managing Entity (Hereafter referred as ME) through information available on UNFCCC and by using database. Also each CPA implementer will have a contractual agreement with PP that would include provisions to avoid double counting.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A.4.4.4. Is there a system or procedure to detect whether a SSC-CPA to be included in the PoA is not a de-bundled component of another CPA or CDM project?	2,31, 42	PP will have a contractual arrangement with each CPA to ensure that it is not a de-bundled component of another CPA or CDM project. The same has been documented in PoA-DD for transparency. Further the ME would also cross check with the information available on UNFCCC and Database. The De-bundling check for the CPAs will be carried out according to the <i>Guidelines on Assessment of De-bundling for SSC Project Activities, Version 3, Annex 13, EB 54, section II: Guidance for Determining the Occurrence of De-bundling under a Programme of Activities (PoA).</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.5. Are provisions in place to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA?	2,31, 42	PP will have a contractual arrangement, with each CPA implementer, that would include following pre conditions: <ul style="list-style-type: none"> • The CPA has not been and will not be registered as a single CDM project activity or as a CPA under another PoA. • The project implementer is aware that the CPA will be subscribed to the present PoA. • The project implementer subscribed under the PoA shall not undertake another renewable energy project under CDM within one kilometer of the proposed CPA. The de-bundling check requirements will be met as per the referred tool. • The project implementer in consultation with the managing entity of the present PoA will arrive at an agreement on the rights to claim and own emission reductions. • The project implementer certifies that the CPA is not registered under the Clean Development Mechanism of the UNFCCC 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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	2,31, 42	For each CPA, all parameters included in section E.7.1 of PoA-DD would be monitored by the implementing entity of the CPA according to the procedures and monitoring framework established in POA-DD. Also refer to CAR in section A.4.4.1	CAR	<input checked="" type="checkbox"/>

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CPAs and within CPAs)?				
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?	2,31, 42	See section A.4.4.3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.5. Public funding of the small-scale project activity				
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	2,31, 42	This will be established at CPA level. As per the CPA inclusion criteria only CPA with no public funding would be included in the PoA. Refer CAR in section A.4.2.2	CAR	<input checked="" type="checkbox"/>
A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PoA-DD (in particular annex 2)?	2,31, 42	Yes the information has been consistently provided.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B. Duration of the programme of activities				
B.1. Starting date of the programme of activities				
B.1.1. Is the programme's starting date clearly defined and reasonable?	See table 2	Clarification Request No. 9. PP shall provide the rationale behind choosing starting date of PoA-DD as 01-09-2011. PP shall also provide evidence supporting the same.	CR	<input checked="" type="checkbox"/>
B.2. Length of the programme of activities (PoA)				

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B.2.1. Is the assumed length of the PoA clearly defined by the coordinating managing entity and reasonable (max 28 years)?	2,24	As per 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 (EB 55, Annex 38), length of a PoA should not exceed 28 years. Length of the PoA is mentioned as 28 years hence it is correct. .	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	2,20, 21,2 2,32, 33, 34,4 2	Yes, it has been indicated that the environmental analysis takes place at CPA level based on Environmental Act of 2000, Environment Regulation 2002, and the guidelines to conduct EIA and preparation of an EIA Statement, 2004. The Acts and Regulation pertaining to EIA are governed by Department of Environment and Conservation (DEC). The Environment (Prescribed Activities) Regulation 2002 categorizes projects as: <ul style="list-style-type: none"> • “Prescribed Activities” in two schedules according to the anticipated potential environmental impact. Schedule 1 consists of Level 2 activities that are subdivided into two categories (Category A and B): • Category B has 13 sub-categories with sub-category 10 addressing Energy Production. • Item 10.1 in this sub-category includes Operation of renewable energy plants with a capacity of more than 2 MW. Projects that have more adverse environmental impact are designated in Schedule 2 as Level 3 Activities. All renewable energy projects that meet any of these requirements are required to prepare a ‘Notification of Preparatory Works’ that is submitted to the Department of	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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		<p>Environment and Conservation (DEC) who will review the Notification and then advise the level of investigation required.</p> <p>If the subproject is classified as 2B then an Environmental Application is completed and sent to DEC for review. If it is approved DEC will issue an Environmental Permit which allows work to commence on the site.</p> <p>The CPAs under the PoA will prepare a 'Notification of Preparatory Works' and will submit to DEC for their review and subsequent advise on level of investigation required. Further, if a CPA is classified as 2B, an Environmental Application for the CPA will be completed and submitted to DEC for approval and issuance of Environmental Permit.</p>		
C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	2,42	Yes, it has been appropriately justified in section C of PoA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2. Documentation on the analysis of the environmental impacts of the PoA, including transboundary impacts:				
C.2.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	2,20, 21,2 2,32, 33, 34,4 2	See section C.1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	2,20, 21,2 2,32, 33, 34,4 2	See section C.1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2.3. Will the project create any adverse environmental effects?	2,20, 21,2	See section C.1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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	2,32, 33, 34,4 2			
C.2.4. Were trans-boundary environmental impacts identified in the analysis?	-	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	2,20, 21,2 2,32, 33, 34,4 2	See section C.1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.3.2. Does the project comply with environmental legislation in the host country?	2,20, 21,2 2,32, 33, 34,4 2	See section C.1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.3.3. Is, per host country laws/regulations, an environmental impact assessment necessary for a typical CPA?	2,20, 21,2 2,32, 33, 34,4 2	See section C.1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D. Stakeholders' comments				
D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:				

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D.1.1. Is there a clear statement whether the stakeholder comments will be invited at PoA or CPA level?	2,42	Yes, it has been indicated that the stakeholder comments will be invited at PoA level and CPA level as well.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.2. Is the choice justified in a clear and reasonable manner?	2,42	Yes the choice has been justified in the PoA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	2,42	Stakeholder comments will be invited at CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.4. If the stakeholder comments will be invited at PoA level, is there a summary of the contents?	2,42	Stakeholder comments will be invited at CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	2,42	Stakeholder comments will be invited at CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2. Brief description how comments by local stakeholders have been invited and compiled				
D.2.1. Have relevant stakeholders been consulted?	2,42	Stakeholder comments will be invited at CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.2. Have appropriate media been used to invite comments by local stakeholders?	2,42	Stakeholder comments will be invited at CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	See table 2	<u>Corrective Action Request No.13.</u> Clarify in PoA-DD whether stakeholder consultation process is required by regulation/laws in the host country. If yes, document how this stakeholder meeting has been carried out as per the regulations/laws.	CAR	<input checked="" type="checkbox"/>
D.2.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	2,42	Stakeholder comments will be invited at CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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D.3. Summary of the comments received				
D.3.1. Is a summary of the received stakeholder comments provided?	2,42	Stakeholder comments will be invited at CPA level.	CR	<input checked="" type="checkbox"/>
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?	2,42	Stakeholder comments will be invited at CPA level.	CR	<input checked="" type="checkbox"/>
E. Application of a baseline and monitoring methodology to a typical SSC-CPA				
E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to SSC-CPA included in the PoA				
E.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	2,3,4 2 Also See table 2	<p>Yes, the methodologies referred are as below:</p> <ul style="list-style-type: none"> AMS I.F, Renewable electricity generation for captive use and mini grid. Version 02. AMS I.D, Grid connected renewable electricity generation - Version 17. AMS I.A, Electricity generation by the user, Version 14. <p>However, sections E.6.3 and E.7.1 do not discuss the parameters with respect to methodology AMS I.A. A CAR has been raised in this regard.</p> <p>Refer to CAR in section E.6.3.2.19</p> <p><u>Clarification Request No. 10.</u></p> <p>It is understood that clarifications have been sought from CDM small scale working group with respect to applicability of all the three methodologies (AMS I.D, AMS I.F, AMS I.A) in a single PoA program (Vide Clarification no. SSC_547). It is also understood that the application of methodologies AMS I.D and AMS I.F together is considered reasonable by the SSC Working Group (clarification) SSC_537 However, as per CDM guidelines on application of multiple small scale CDM methodologies (para 28, 29 of Annex 03 of EB 65), only com-</p>	CR	<input checked="" type="checkbox"/>

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		bination of methodologies are allowed; how can PP justify the applicability of all the three methodologies in a single PoA program where any of the CPA can apply to any single methodology? It is required to be further clarified with UNFCCC in line with para 30 of Annex 03 of EB 65.										
E.1.1.2. Is the applied version the most recent one and / or is this version still applicable?	2,3,4 2	Yes, the version used is the most recent one at the time of uploading the project for GSP.	<input checked="" type="checkbox"/>									
E.1.1.3. Is the applied SSC methodology approved by the board, for use in PoA?	2,3,4 2	Yes, the applied SSC methodology has been approved by the board, for use in PoA.	<input checked="" type="checkbox"/>									
E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA												
E.2.1.1. Is the applied methodology considered the most appropriate one?	2,3,4 2	Yes, the applied methodologies are the most appropriate small scale methodology for this kind of a PoA programme. See CR in section E.1.1.1	CR									
E.2.1.2. Does the SSC methodology account for leakage in the context of a SSC-CPA?	2,3,4 2	As per the applied methodologies, leakage would only be accounted if generating equipment is transferred from another activity.	<input checked="" type="checkbox"/>									
Applicability Criteria for methodology AMS I.F, 'Renewable electricity generation for captive use and mini grid'.												
Integrate the required amount of sub-checklists on the applicability criteria as given by the applied methodology and comment on at least every line answered with "No";												
E.2.1.3. Criterion 1: This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to user(s).	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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E.2.1.4. Criterion 2: This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to user(s). <ul style="list-style-type: none">• A national or a regional grid (grid hereafter);• Fossil fuel fired captive power plant;• A carbon intensive mini-grid.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.5. Criterion 3: For the purpose of this methodology, a mini-grid is defined as small-scale power system with a total capacity not exceeding 15 MW (i.e. the sum of installed capacities of all generators connected to the mini-grid is equal to or less than 15 MW) which is not connected to a national or a regional grid.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.6. Criterion 4: Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: <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	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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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/m ² ; <ul style="list-style-type: none">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.												
E.2.1.7. Criterion 5: For biomass power plants, no other biomass other than renewable biomass are to be used in the project plant.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.8. Criterion 6: 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).	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.9. Criterion 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	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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and should be physically distinct from the existing units.												
E.2.1.10. 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.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.11. Criterion 9: 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.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.12. Criterion 10: Combined heat and power (co-generation) systems are not eligible under this category.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>NA</td></tr><tr><td>Compliance provable?</td><td>NA</td></tr><tr><td>Compliance verified?</td><td>NA</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	NA	Compliance provable?	NA	Compliance verified?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	NA											
Compliance provable?	NA											
Compliance verified?	NA											
E.2.1.13. Criterion 11: If electricity and/or steam/heat produced by the project activity is delivered to a third party i.e. another facility or facilities within the project boundary, a contract between the supplier and consumer(s) of the electricity will have to be entered that ensures that there is no double	See table 02	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table> Corrective Action Request No.14.	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	CAR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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counting of emission reductions.		PP shall ensure that the applicability criteria, mentioned in the PoA-DD, are in line with the applied methodology.										
Applicability Criteria for methodology AMS I.D, 'Grid connected renewable electricity generation'.												
E.2.1.14. Criterion 1: This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: ✓ Supplying electricity to a national or a regional grid; or ✓ Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	2,3,4 2 Also see table 02	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table> See CAR in section E.2.1.13	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	CAR	☑
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.15. Criterion 2: This methodology is applicable to project activities that (a) install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	☑	☑
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.16. Criterion 3: Hydro power plants with reservoirs that satisfy at least one of the fol-	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	☑	☑				
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											

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lowing conditions are eligible to apply this methodology: <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.		<table><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level							
Compliance provable?	Yes												
Compliance verified?	To be verified at CPA level												
E.2.1.17. Criterion 4: 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.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Applicability checklist	Yes / No / NA												
Criterion discussed in the PoA-DD?	Yes												
Compliance provable?	Yes												
Compliance verified?	To be verified at CPA level												
E.2.1.18. Criterion 5: Combined heat and power (co-generation) systems are not eligible under this category.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Applicability checklist	Yes / No / NA												
Criterion discussed in the PoA-DD?	Yes												
Compliance provable?	Yes												
Compliance verified?	To be verified at CPA level												

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E.2.1.19. Criterion 6: In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.20. Criterion 7: In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
Applicability Criteria for methodology AMS I.A, 'Electricity generation by the user'.												
E.2.1.21. Criterion 1: This category comprises renewable electricity generation units that supply individual households/users or groups of households/users included in the project boundary.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.22. Criterion 2: The applicability is limited to individual households and users that do not have a grid connection except when; (a) A group of households or users are supplied electricity through a standalone mini-grid powered by renewable energy generation unit(s)	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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<p>where the capacity of the generating units does not exceed 15 W (i.e., the sum of installed capacities of all renewable energy generators connected to the mini-grid is less than 15 MW) e.g., a community based stand-alone off-the-grid renewable electricity systems; or</p> <p>(b) The emissions reduction per renewable energy based lighting system is less than 5 tonnes of CO₂e a year and where it can be shown that fossil fuel would have been used in the absence of the project activity by;</p> <p>(i) A representative sample survey (90% confidence interval, ±10% error margin) of target households; or</p> <p>(ii) Official statistics from the host country government agencies.</p>												
<p>E.2.1.23. Criterion 3: The renewable energy generation units include technologies such as solar, hydro, wind, biomass gasification and other technologies that produce electricity all of which is used on-site/locally by the user, e.g., solar home systems, wind battery chargers . The renewable generating units may be new installations (Greenfield) or replace existing onsite fos-</p>	<p>2,3,4 2</p>	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<p>☑</p>	<p>☑</p>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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sil-fuel-fired generation. To qualify as a small-scale project, the total output of the unit(s) shall not exceed the limit of 15 MW.												
E.2.1.24. Criterion 4: Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: <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.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.25. Criterion 5: Combined heat and power (cogeneration) systems are not eligible under this category.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.26. Criterion 6: If the unit added has both renewable and non-renewable components	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	CAR	<input checked="" type="checkbox"/>				
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	Yes											

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(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.		<table><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level							
Compliance provable?	Yes												
Compliance verified?	To be verified at CPA level												
		See CAR in section E.2.1.13											
E.2.1.27. Criterion 7: Project activities that involves retrofit or replacement of an existing facility for renewable energy generation are included in this category. To qualify as a small-scale project, the total output of the modified or retrofitted unit shall not exceed the limit of 15 MW.	2,3,4 2 Also see table 02	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table> See CAR in section E.2.1.13	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	CAR		☑
Applicability checklist	Yes / No / NA												
Criterion discussed in the PoA-DD?	Yes												
Compliance provable?	Yes												
Compliance verified?	To be verified at CPA level												
E.2.1.28. Criterion 8: 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.	2,3,4 2	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	Yes	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	☑		☑
Applicability checklist	Yes / No / NA												
Criterion discussed in the PoA-DD?	Yes												
Compliance provable?	Yes												
Compliance verified?	To be verified at CPA level												

Applicability Criteria for methodologies AMS I.F, AMS I.D, AMS I.A under PoA

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E.2.1.29. Criterion 1: In the specific case of biomass project activities the applicability of the methodology is limited to either project activities that use biomass residues only or biomass from dedicated plantations complying with the applicability conditions of AM0042.	See table 02	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table> <p><u>Corrective Action Request No.15.</u></p> <p>PP shall discuss the PoA applicability criteria given specifically for PoA project activities in each methodology separately under section E.2 of the PoA-DD.</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	No	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	CAR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	No											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.30. Criterion 2: In the specific case of biomass project activities the determination of leakage shall be done following the general guidance for leakage in small-scale biomass project activities (attachment C of Appendix B of simplified modalities and procedures for small-scale clean development mechanism project activities; decision 4/CMP.1) or following the procedures included in the leakage section of AM0042.	See table 02	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table> <p>Refer to CAR in section E.2.1.29</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	No	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	CAR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	No											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											
E.2.1.31. Criterion 3: In case the project activity involves the replacement of equipment, and the leakage from the use of the replaced equipment in another activity is neglected because the replaced equipment is scrapped, an independent monitoring of scrapping of replaced equipment needs to be implemented. The monitoring should include a check if the number of project activity equipment distributed by the project and	See table 02	<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PoA-DD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>To be verified at CPA level</td></tr></table> <p>Refer to CAR in section E.2.1.29</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PoA-DD?	No	Compliance provable?	Yes	Compliance verified?	To be verified at CPA level	CAR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PoA-DD?	No											
Compliance provable?	Yes											
Compliance verified?	To be verified at CPA level											

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the number of scrapped equipment correspond with each other. For this purpose scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified.				
E.3. Description of the sources and gases included in the SSC-CPA boundary				
E.3.1.1. Does the SSC-CPA boundary include the physical and geographical location where the programme activities take place?	See table 02	Yes. Also see CAR A.4.1.1	CAR	<input checked="" type="checkbox"/>
E.3.1.2. Are all sources and gases within the boundary considered in a clear manner?	See table 02	<u>Corrective Action Request No.16.</u> PP shall justify in section E.3 of PoA-DD, the inclusion or exclusion of gases in the project boundary of different types renewable energy based projects as CPAs.	CAR	<input checked="" type="checkbox"/>
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?	2,42	To be done at PoA level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:				
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?	See table 02	<u>Corrective Action Request No.17.</u> Include in section E.4 whether the identified baseline scenario is as per the legal requirements/laws and the installation of project activity is not mandatory by any laws or requirements.	CAR	<input checked="" type="checkbox"/>
E.4.1.2. Does project identify correctly and exclude those options not in line with regulatory or legal requirements?	See table 02	Refer to CAR in section E.4.1	CAR	<input checked="" type="checkbox"/>
E.4.1.3. Have applicable regulatory or legal re-	See	Refer to CAR in section E.4.1	CAR	<input checked="" type="checkbox"/>

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quirements been identified?	table 02			
E.4.1.4. Does the PoA-DD identify the most likely baseline scenario in absence of the project activity?	2,42	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4.1.5. Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc)?	2,42	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4.1.6. Is the identified baseline scenario in line with regulatory or legal requirements?	See table 02	Refer to CAR in section E.4.1	CAR	<input checked="" type="checkbox"/>
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 SSC-CPA, included in a registered PoA (assessment and demonstration of additionality):				
E.5.1.1. Are the key criteria and data for assessing additionality of a SSC-CPA that is to be included into the PoA clearly and unambiguously stated?	See table 02	See CAR in section A.4.3.2	CAR	<input checked="" type="checkbox"/>
E.5.1.2. Are the key criteria and data for assessing additionality of a SSC-CPA that is to be included into the PoA based on the additionality assessment in section E.5.1 of the PoA-DD?	2,42	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.5.1.3. Is the choice of the criteria justified, based on the analysis in section E.5.1 of the PoA-DD?	2,42 Also see table 02	Choice of criteria to demonstrate additionality would be at CPA level, hence not discussed in detail in PoA-DD. See CAR in section A.4.3.2	CAR	<input checked="" type="checkbox"/>

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E.5.1.4. Does it become evident how these criteria would be applied to assess the additionality of a typical CPA at the time of inclusion?	Also see table 02	Choice of criteria to demonstrate additionality would be at CPA level, hence not discussed in detail in PoA-DD. See CAR in section A.4.3.2	CAR	☑															
E.5.1.5. Is this information incorporated into the specific CDM-SSC-CPA-DD (“real case”)?	2,42	Yes	☑	☑															
E.5.1.6. 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?	2,42	As the start date of the PoA mentioned as 01-09-2011 i.e. after the date of publication of PoA-DD (12-07-2011), prior consideration of CDM do not apply, in line with ‘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’ (EB60 Annex 26, Para 03).	☑	☑															
E.5.1.7. Is a complete list of barriers developed that prevents the project activity to occur?	2,42	Choice of criteria to demonstrate additionality would be at CPA level, hence not discussed in detail in PoA-DD. Moreover, for CPAs having up to 5 MW installed capacity are considered additional. See section E.5.1 of protocol.	☑	☑															
E.5.1.8. Does this list include at least one of the following barriers?	2,42	<table><tr><th>Barrier</th><th>Discussed?</th><th>Verifiable?</th></tr><tr><td>Investment</td><td>Yes</td><td>At CPA level</td></tr><tr><td>Technological</td><td>Yes</td><td>At CPA level</td></tr><tr><td>Due to prevailing practice</td><td>Yes</td><td>At CPA level</td></tr><tr><td>Other</td><td>Yes</td><td>At CPA level</td></tr></table> Choice of criteria to demonstrate additionality would be at CPA level, hence not discussed in detail in PoA-DD.	Barrier	Discussed?	Verifiable?	Investment	Yes	At CPA level	Technological	Yes	At CPA level	Due to prevailing practice	Yes	At CPA level	Other	Yes	At CPA level	☑	☑
Barrier	Discussed?	Verifiable?																	
Investment	Yes	At CPA level																	
Technological	Yes	At CPA level																	
Due to prevailing practice	Yes	At CPA level																	
Other	Yes	At CPA level																	
E.5.1.9. Does the discussion sufficiently taken-into account relevant national and/or sectoral policies?	See table 02	<u>Corrective Action Request No.18.</u> Include all the relevant national and sectoral policies in section E.5.2 of PoA-DD.	CAR	☑															
E.5.1.10. Is transparent and documented evidence provided on the existence and sig-	2,42	Choice of criteria to demonstrate additionality would be at CPA level, hence no applicable.	☑	☑															

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nificance of these barriers?										
E.5.1.11. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	2,42	Choice of criteria to demonstrate additionality would be at CPA level, hence not discussed in detail in PoA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
E.6.Estimation of Emission reductions of a CPA										
E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA										
E.6.1.1. Is it explained how the procedures provided in the methodology are applied?	2,42	Yes, it is explained how the procedures provided in the methodology are applied by the proposed PoA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
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?	2,42	See section E.2 above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Determination of Project Emission (Comment on any line answered “No”)										
E.6.1.3. Component 1: Emissions from the consumption of fossil fuel	See table 02	<table><tr><td>Project emission checklist</td><td>Yes / No /NA</td></tr><tr><td>Component discussed in the PoA-DD?</td><td>Yes, but only for geothermal projects</td></tr><tr><td>Formulae correctly applied?</td><td>Yes, but only for geothermal projects</td></tr></table> <p><u>Corrective Action Request No.19.</u></p> <p>A CPA can have a standby fossil fuel based auxiliary power consumption or co-firing of fossil fuel (for example, for biomass based projects or hydro); include the project emission parameter for its monitoring. PP shall include provisions for monitoring of project activity emissions from consumption of electricity and/or fossil fuel, by the project activity (CPA), during periodic maintenance and shut down.</p>	Project emission checklist	Yes / No /NA	Component discussed in the PoA-DD?	Yes, but only for geothermal projects	Formulae correctly applied?	Yes, but only for geothermal projects	CAR	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No /NA									
Component discussed in the PoA-DD?	Yes, but only for geothermal projects									
Formulae correctly applied?	Yes, but only for geothermal projects									

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		<u>Corrective Action Request No.20.</u> Include in the PoA-DD provisions for monitoring of project emissions from all types of renewable energy technology that can be employed by a CPA (viz. Wind, Hydro, Photovoltaic, Tidal, and Wave); currently project emissions from only Hydro and Geothermal is discussed.								
E.6.1.4. Component 2: Emissions from the consumption of electricity.	See table 02	<table><tr><td>Project emission checklist</td><td>Yes / No /NA</td></tr><tr><td>Component discussed in the PoA-DD?</td><td>No</td></tr><tr><td>Formulae correctly applied?</td><td>No</td></tr></table> Comments: In case of hydro auxiliary electricity would be provided by the generated hydro power and for other projects only net electricity exported is considered for emission reduction calculations. Refer to CAR in E.6.1.3 above	Project emission checklist	Yes / No /NA	Component discussed in the PoA-DD?	No	Formulae correctly applied?	No	CAR	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No /NA									
Component discussed in the PoA-DD?	No									
Formulae correctly applied?	No									
E.6.1.5. Component 3: Emissions from the consumption of non-condensable gases.	2,42	<table><tr><td>Project emission checklist</td><td>Yes / No /NA</td></tr><tr><td>Component discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Formulae correctly applied?</td><td>Yes</td></tr></table> Comments: Applicable in case of geothermal power projects	Project emission checklist	Yes / No /NA	Component discussed in the PoA-DD?	Yes	Formulae correctly applied?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No /NA									
Component discussed in the PoA-DD?	Yes									
Formulae correctly applied?	Yes									
E.6.1.6. Component 4: Emissions from water reservoirs of hydro power plant	2,42	<table><tr><td>Project emission checklist</td><td>Yes / No /NA</td></tr><tr><td>Component discussed in the PoA-DD?</td><td>Yes</td></tr><tr><td>Formulae correctly applied?</td><td>Yes</td></tr></table>	Project emission checklist	Yes / No /NA	Component discussed in the PoA-DD?	Yes	Formulae correctly applied?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No /NA									
Component discussed in the PoA-DD?	Yes									
Formulae correctly applied?	Yes									
E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA:										
E.6.2.1. Are the formulae required for the de-	2,42	Yes, it is explained how the procedures provided in the methodology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

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termination of emission reductions correctly presented, enabling a complete identification of parameters to be used and / or monitored?		are applied by the proposed PoA.			
E.6.2.2. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA, completely presented?	See table 02	Clarification Request No. 11. PP shall provide the standard Emission reduction calculation sheet which would be used for ER computation from each CPA type.	CR	<input checked="" type="checkbox"/>	
E.6.3. Data and parameters that are to be reported in CDM-SSC-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?	See table 02	Parameters are discussed individually below for each methodology. Refer section E.6.3.2. See CARs below. Corrective Action Request No.21. PP shall mention all the parameters, pertaining to applicable methodology AMS I.A, that are to be reported in CDM SSC-CPA-DD under section E.6.3 and section E.7.1	CAR	<input checked="" type="checkbox"/>	
E.6.3.2. Comment on any line answered with “No”					
Data and parameters for methodology AMS I.F, ‘Renewable electricity generation for captive use and mini grid’.					
E.6.3.2.1. Parameter Title: Cap _{BL} Installed capacity of hydropower plant before the implementation of the project activity	2,3,4 2 Also see table 02	Data Checklist	Yes / No/NA	CR	<input checked="" type="checkbox"/>
		Title in line with methodology?	No		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	Yes		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		

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		<table><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>This parameter is in line with approved methodology ACM0002, Version 12; however, PoA indicates that it would not envisage any capacity addition or a retrofit (increase in reservoir capacity) hydro project; in that case this parameter is not applicable.</p> <p><u>Clarification Request No. 12.</u></p> <p>PoA-DD in section E.6.3 clearly indicates that the hydro power based CPAs would be Greenfield projects and hence would not cause any increase in capacity of reservoir, then why the parameter Cap_{BL} been discussed in the PoA-DD?</p>	Measurement method correctly described?	NA																		
Measurement method correctly described?	NA																					
E.6.3.2.2. Parameter Title: A _{BL} Area of reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full.	2,3,4 2 2,3,4 2 Also see table 02	<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>Refer to CR in section E.6.3.2.1</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	No	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	CR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					
E.6.3.2.3. Parameter Title: EF Res Default emission factor for emissions from reservoirs.	2,3,4 2 Also see table 02	<table><tr><td>Data Checklist</td><td>Yes / No/NA</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	Yes	Appropriate description?	Yes	Source clearly referenced?	Yes	CR	<input checked="" type="checkbox"/>								
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	Yes																					
Appropriate description?	Yes																					
Source clearly referenced?	Yes																					

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		<table><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>Refer to CR in section E.6.3.2.1</p>	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA												
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					
E.6.3.2.4. Parameter Title: EF _{CO2,y} CO ₂ emission factor of the grid/ mini grid/ captive electricity in year y	2,3,4 2 Also see table 02	<table><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> <p>Comments: As this parameter would be estimated in each CPA and would depend on the period of CPA inclusion, it can be verified only at the CPA level</p> <p><u>Corrective Action Request No.22.</u></p> <p>PP shall mention all the parameters, in section E.6.3, option 1 that would be required to calculate Emission factor for the grid, mini grid or captive electricity generation, not limited to the following:</p>	Data Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	NA	Has this value been verified?	No	Choice of data correctly justified?	NA	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	NA																					
Has this value been verified?	No																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	No																					

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		<ul style="list-style-type: none">• Operating Margin (OM), if applicable• Build Margin (BM), if applicable• fuel consumption of each power source• CO₂ emission factor of each fuel• electricity generation of each power source• electricity imports• NCV of fuel type used in mini grid or captive unit <p>Also mention the reference to the methodology or the tool used to calculate Emission factor in section E.6.3, option 1 & 2.</p>																				
Additional parameters used for the calculation of the grid factors (if necessary)																						
E.6.3.2.5. Parameter Title: electricity imports	2,3,4 2 Also see table 02	<table><thead><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></tbody></table> <p>Comments: Refer to CAR in E.6.3.2.4</p>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
E.6.3.2.6. Parameter Title: CO ₂ emission coefficient of fuels	2,3,4 2		CAR	<input checked="" type="checkbox"/>																		

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used in connected grids	Also see table 02	<table><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> <p>Comments: Refer to CAR in E.6.3.2.4</p>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No		
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
E.6.3.2.7. Parameter Title: Net calorific value of fossil fuels used in the grid.	2,3,4 2 Also see table 02	<table><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> <p>Comments: Refer to CAR in E.6.3.2.4</p>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
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E.6.3.2.8. Parameter Title: Fossil fuel consumption of each type in the grid.	2,3,4 2 Also see table 02	<table><thead><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></tbody></table> Comments: Refer to CAR in E.6.3.2.4	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
E.6.3.2.9. Parameter Title: Electricity generation of each power source in the grid	2,3,4 2 Also see table 02	<table><thead><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr></tbody></table>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	CAR	<input checked="" type="checkbox"/>		
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		<table><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Comments: Refer to CAR in E.6.3.2.4	Measurement method correctly described?	No																		
Measurement method correctly described?	No																					
Data and parameters for methodology AMS I.D, 'Grid connected renewable energy generation'.																						
E.6.3.2.10.Parameter Title: EF CO ₂ Emission factor of a grid (National or Regional) where the project activity is exporting power	2,3,4 2 Also see table 02	<table><tr><td>Data Checklist</td><td>Yes / No/NA</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Comments: As this parameter would be estimated in each CPA and would depend on the period of CPA inclusion, it can be verified only at the CPA level. See CAR in section E.6.3.2.4.	Data Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	NA	Has this value been verified?	No	Choice of data correctly justified?	NA	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
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Correct value provided?	NA																					
Has this value been verified?	No																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	No																					
E.6.3.2.11.Parameter Title: Cap _{BL} Installed capacity of hydropower plant before the implementation of the project activity	2,3,4 2 Also see table 02	<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	No	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	No	Has this value been verified?	No	CR	<input checked="" type="checkbox"/>				
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		<table><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>	Choice of data correctly justified?	No	Measurement method correctly described?	No																
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
		Refer to CR in section E.6.3.2.1																				
E.6.3.2.12.Parameter Title: A _{BL} Area of reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full.	2,3,4 2 Also see table 02	<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	No	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CR	<input checked="" type="checkbox"/>
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Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
		Refer to CR in section E.6.3.2.1																				
E.6.3.2.13.Parameter Title: EF Res Default emission factor for emissions from reservoirs.	2,3,4 2 Also see table 02	<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	No	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
		Refer to CR in section E.6.3.2.1																				
Additional parameters used for the calculation of the grid factors (if necessary)																						
E.6.3.2.14.Parameter Title: electricity imports	2,3,4 2		CAR	<input checked="" type="checkbox"/>																		

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	Also see table 02	<table><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> <p>Comments: Refer to CAR in E.6.3.2.4</p>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No		
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
E.6.3.2.15.Parameter Title: CO ₂ emission coefficient of fuels used in connected grids	2,3,4 2 Also see table 02	<table><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> <p>Comments: Refer to CAR in E.6.3.2.4</p>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					

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E.6.3.2.16.Parameter Title: Net calorific value of fossil fuels used in the grid.	2,3,4 2 Also see table 02	<table><thead><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></tbody></table> Comments: Refer to CAR in E.6.3.2.4	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
E.6.3.2.17.Parameter Title: Fossil fuel consumption of each type in the grid.		<table><thead><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr></tbody></table>	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	CAR	<input checked="" type="checkbox"/>		
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
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Choice of data correctly justified?	No																					

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		<table><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Comments: Refer to CAR in E.6.3.2.4	Measurement method correctly described?	No																		
Measurement method correctly described?	No																					
E.6.3.2.18.Parameter Title: Electricity generation of each power source in the grid	2,3,4 2 Also see table 02	<table><tr><th>Data Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Comments: Refer to CAR in E.6.3.2.4	Data Checklist	Yes / No/NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No/NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
E.7.Application of the monitoring methodology and description of the monitoring plan																						
E.7.1. Data and parameters to be monitored by each SSC-CPA																						
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?	2,3,4 2 Also see table 02	Parameters are discussed individually below for each methodology. Refer section E.7.1.2. See CARs below.	CAR	<input checked="" type="checkbox"/>																		

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E.7.1.2. Comment on any line answered with “No”																													
Data and parameters for methodology AMS I.F, ‘Renewable electricity generation for captive use and mini grid’.																													
E.7.1.2.1. Parameter Title: $EG_{BL,y}$ Quantity of net electricity displaced in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>		Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	Yes	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR & CR	<input checked="" type="checkbox"/>
		Monitoring Checklist	Yes / No/NA																										
		Title in line with methodology?	Yes																										
		Data unit correctly expressed?	Yes																										
		Appropriate description of parameter?	Yes																										
		Source clearly referenced?	Yes																										
		Correct value provided for estimation?	NA																										
		Has this value been verified?	NA																										
		Measurement method correctly described?	Yes																										
		Correct reference to standards?	No																										
		Indication of accuracy provided?	No																										
		QA/QC procedures described?	No																										
		QA/QC procedures appropriate?	No																										
<u>Corrective Action Request No.23.</u> PP shall correct the parameter as per the methodology to $EG_{BL,y}$ mentioned under option I of section D.7.1 of PoA-DD, ensuring alongside representation of all parameters in line with the applied methodology. $EG_{BL,y}$ is the net electricity exported to the grid and cannot be determined directly as mentioned in the PoA-DD. This should be corrected.																													
<u>Corrective Action Request No.24.</u> Specify the measurement and recording frequency of all the parameter as per the methodology or applicable tool. Also include standard QA/QC or cross check measures in the PoA-DD.																													
<u>Clarification Request No. 13.</u> PP shall elucidate the ‘standard industry norm’ that would be used																													

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		for calibration of the energy meter. PP shall further clarify that how the accuracy level for parameter $EB_{BL,y}$ would be ensured for all CPAs?																										
E.7.1.2.2. Parameter Title: $EF_{CO_2, y}$ CO ₂ emission factor for the grid/mini grid/captive electricity in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p><u>Corrective Action Request No.25.</u></p> <p>Include reference to the UNFCCC tool that would be applied to determine CO₂ emission factor for the grid/mini grid/captive electricity in year y.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	No	Indication of accuracy provided?	NA	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	No																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
E.7.1.2.3. Parameter Title: COEFi CO ₂ emission factor of fossil fuel type i	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr></table>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	Yes	CR	<input checked="" type="checkbox"/>						
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	Yes																											

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		<table><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>Refer section E.7.1.2.1 and follow the CAR pertaining to QA/QC.</p>	Indication of accuracy provided?	NA	QA/QC procedures described?	No	QA/QC procedures appropriate?	No																				
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
E.7.1.2.4. Parameter Title: NCV _i Net Calorific Value of fossil fuel type i	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>Refer section E.7.1.2.1 and follow the CAR pertaining to QA/QC. The frequency of NCV monitoring of fossil fuels is also not mentioned.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	Yes	Indication of accuracy provided?	NA	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	Yes																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
E.7.1.2.5. Parameter Title: Q _{FF} Quantity of fossil fuel combusted in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	No	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	Yes	Indication of accuracy provided?	NA	QA/QC procedures described?	No	CAR	<input checked="" type="checkbox"/>		
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	No																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	Yes																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											

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		QA/QC procedures appropriate?		No			
		<u>Corrective Action Request No.26.</u> Quantity of each fossil fuel and Biomass type used and moisture content of each biomass residue type should be monitored in section E.7.1 of the PoA-DD.					
E.7.1.2.6. Parameter Title: Q _{Biomass} Quantity of biomass type i	2,3,4 2 Also see table 02	Monitoring Checklist		Yes / No/NA	CAR	<input checked="" type="checkbox"/>	
		Title in line with methodology?		Yes			
		Data unit correctly expressed?		Yes			
		Appropriate description of parameter?		Yes			
		Source clearly referenced?		NA			
		Correct value provided for estimation?		NA			
		Has this value been verified?		NA			
		Measurement method correctly described?		NA			
		Correct reference to standards?		Yes			
		Indication of accuracy provided?		NA			
		QA/QC procedures described?		No			
		QA/QC procedures appropriate?		No			
		Refer to section E.7.1.2.1					
		E.7.1.2.7. Parameter Title: MC _{Biomass} Moisture content of biomass residues	2,3,4 2 Also see table 02	Monitoring Checklist			Yes / No/NA
Title in line with methodology?				Yes			
Data unit correctly expressed?				Yes			
Appropriate description of parameter?				Yes			
Source clearly referenced?				NA			
Correct value provided for estimation?				NA			
Has this value been verified?				NA			
Measurement method correctly described?				NA			
Correct reference to standards?				Yes			
Indication of accuracy provided?				NA			
QA/QC procedures described?				Yes			

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		QA/QC procedures appropriate?	Yes		
		Refer to CAR in section E.7.1.2.1 and E.7.1.2.5			
E.7.1.2.8. Parameter Title: NCV _{Biomass} Net calorific value of biomass residue type k	2,3,4 2 Also see table 02	Monitoring Checklist	Yes / No/NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	Yes		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	Yes		
		QA/QC procedures appropriate?	Yes		
Data and parameters for methodology AMS I.D, ‘Renewable electricity generation for captive use and mini grid’.					

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E.7.1.2.9. Parameter Title: $EG_{\text{facility},y}$, $EG_{\text{actual},y}$ $EG_{\text{add},y}$ Quantity of net electricity supplied to the grid in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> Refer CAR in section E.7.1.2.1	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
E.7.1.2.10. Parameter Title: $W_{\text{steam},\text{CO}_2,y}$ Average mass fraction of carbon dioxide in the produced steam in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> This is an additional parameter considered by the PP; however its inclusion is justified. Refer section E.7.1.2.1 and follow the CAR pertaining to QA/QC.	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	NA	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											

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E.7.1.2.11.Parameter Title: $W_{\text{steam,CH}_4,y}$ Average mass fraction of methane in the produced steam in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>This is an additional parameter considered by the PP; however its inclusion is justified. Refer section E.7.1.2.1 and follow the CAR pertaining to QA/QC.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	NA	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
E.7.1.2.12.Parameter Title: $W_{\text{steam},y}$ Quantity of steam produced in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>This is an additional parameter considered by the PP; however its inclusion is justified. Refer section E.7.1.2.1 and follow the CAR pertaining to QA/QC.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	NA	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											

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E.7.1.2.13.Parameter Title: EF _{CO₂, y} CO ₂ emission factor of the grid electricity in year y	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p><u>Corrective Action Request No.27.</u></p> <p>Description of EF_{CO₂, y} in section E.7.1, option 2 is not in line with the applied methodology. PP needs to Correct it.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	No	Indication of accuracy provided?	NA	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	No																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											

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E.7.1.2.14.Parameter Title: COEF _i CO ₂ emission factor of fossil fuel type i	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>Refer section E.7.1.2.1 and follow the CAR pertaining to QA/QC.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	Yes	Indication of accuracy provided?	NA	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	Yes																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
E.7.1.2.15.Parameter Title: NCV _i Net Calorific Value of fossil fuel type i	2,3,4 2 Also see table 02	<table><tr><th>Monitoring Checklist</th><th>Yes / No/NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>Refer section B.7.1.2.1 and follow the CAR pertaining to QA/QC. The frequency of NCV monitoring of fossil fuels is also not mentioned.</p>	Monitoring Checklist	Yes / No/NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	Yes	Indication of accuracy provided?	NA	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No/NA																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	Yes																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											

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E.7.1.2.16.Parameter Title: Q_{FF} Quantity of fossil fuel combusted in year y	2,3,4 2 Also see table 02	Monitoring Checklist		Yes / No/NA	CAR	<input checked="" type="checkbox"/>	
		Title in line with methodology?		Yes			
		Data unit correctly expressed?		Yes			
		Appropriate description of parameter?		Yes			
		Source clearly referenced?		NA			
		Correct value provided for estimation?		NA			
		Has this value been verified?		NA			
		Measurement method correctly described?		NA			
		Correct reference to standards?		Yes			
		Indication of accuracy provided?		NA			
		QA/QC procedures described?		No			
		QA/QC procedures appropriate?		No			
		Refer to CAR in section E.7.1.2.1 and E.7.1.2.5					
		E.7.1.2.17.Parameter Title: $Q_{Biomass}$ Quantity of fossil fuel type i	2,3,4 2 Also see table 02	Monitoring Checklist			Yes / No/NA
Title in line with methodology?				Yes			
Data unit correctly expressed?				Yes			
Appropriate description of parameter?				Yes			
Source clearly referenced?				NA			
Correct value provided for estimation?				NA			
Has this value been verified?				NA			
Measurement method correctly described?				NA			
Correct reference to standards?				Yes			
Indication of accuracy provided?				NA			
QA/QC procedures described?				No			
QA/QC procedures appropriate?				No			
Refer section B.7.1.2.1 and follow the CAR pertaining to QA/QC.							

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E.7.1.2.18.Parameter Title: MC _{Biomass} Moisture content of biomass residues	2,3,4 2 Also see table 02	Monitoring Checklist	Yes / No/NA		CAR	☑				
		Title in line with methodology?	Yes							
		Data unit correctly expressed?	Yes							
		Appropriate description of parameter?	No							
		Source clearly referenced?	NA							
		Correct value provided for estimation?	NA							
		Has this value been verified?	NA							
		Measurement method correctly described?	NA							
		Correct reference to standards?	Yes							
		Indication of accuracy provided?	NA							
		QA/QC procedures described?	Yes							
		QA/QC procedures appropriate?	Yes							
		Refer to CAR in section E.7.1.2.1 and E.7.1.2.5								
E.7.1.2.19.Parameter Title: NCV _{Biomass} Net calorific value of biomass residue type k	2,3,4 2	Monitoring Checklist	Yes / No/NA		☑					
		Title in line with methodology?	Yes							
		Data unit correctly expressed?	Yes							
		Appropriate description of parameter?	Yes							
		Source clearly referenced?	NA							
		Correct value provided for estimation?	NA							
		Has this value been verified?	NA							
		Measurement method correctly described?	NA							
		Correct reference to standards?	Yes							
		Indication of accuracy provided?	NA							
		QA/QC procedures described?	Yes							
		QA/QC procedures appropriate?	Yes							
		E.7.2. Description of the monitoring plan for a SSC-CPA								
		E.7.2.1. Is the operational and management structure clearly described and in compli-	2,42, 31				Refer to CAR in section A.4.4.1			CAR

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ance with the envisioned situation?	Also see table 02			
E.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	2,42, 31 Also see table 02	Refer to CAR in section A.4.4.1	CAR	
E.7.2.3. Does the monitoring plan provide current good monitoring practice?	2,42, 31 Also see table 02	Refer to CAR in section A.4.4.1	CAR	
E.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	-	NA	<input checked="" type="checkbox"/>	
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?	2,42	Yes. The date of baseline determination is given as 02-07-2011	<input checked="" type="checkbox"/>	
E.8.1.2. Has dd/mm/yyyy format been used to	2,42	See CAR in section E.8.1.5	CAR	

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indicate the date?	Also see table 02			
E.8.1.3. Is this consistent with the time line of the PoA-DD history?	2,42 Also see table 02	Refer to CR in A.1.3	CR	
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?	2,42	Yes	<input checked="" type="checkbox"/>	
E.8.1.5. Is information provided whether this person / entity is also considered a project participant?	2,42 Also see table 02	<u>Corrective Action Request No.28.</u> Indicate in section E.8 of PoA-DD whether the person/entity responsible for completion of baseline is considered a project participant or not? Also indicate, in dd/mm/yyyy format the date of baseline determination, in section E.8 of PoA-DD.	CAR	
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?	2,42	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.2. Is the information on all private participants and directly involved Parties pre-	2,42	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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sented?				
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?	2,42	There is no public funding available for the PoA. Also refer section A.4.5.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	-	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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 PoA-DD?	2,42	No information is provided in Annex-3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	-	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.3.3. Does the additional information substantiate / support statements given in other sections of the PoA-DD?	2,42	No extra information is provided in Annex-3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4. Annex 4: Monitoring information				
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PoA-DD?	2,42	No additional information is provided in Annex-4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided	-	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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to the validation team?				
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PoA-DD?	2,42	No additional information is provided in Annex-4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Table 2 Resolution of Clarification and Corrective Action Requests

Requests by validation team	Ref. to table 1	Summary of programme owner response	Validation team Conclusion
<p><u>Corrective Action Request No.1.</u></p> <p>The description of PoA-DD clearly indicates in section A.2 of PoA-DD that the PoA would include renewable energy generation based projects viz. Wind, Solar, Photovoltaic, Hydro, Geothermal, Tidal, Wave, and Renewable Biomass. However the subsequent sections of the PoA-DD, including monitoring parameters only infer inclusion of Hydro, Geothermal and Biomass based projects in the PoA. PP should clearly state in the PoA-DD all technology types to be included in the PoA. Further, PP shall describe the existing grid system in PNG citing necessary documentary evidences. Also PP shall ensure that grid definition is consistent throughout the PoA-DD.</p>	A.2.1	<p><u>First Response</u></p> <p>Please note that in the revised PoA-DD version 1.2, 31st March 2012 the monitoring section E.7.1 has been revised and it clearly and consistently states the technology types included.</p> <p>Section A.2 of the PoA-DD describes the existing grid system along with appropriate evidence (Please refer footnotes added on page 2 of PoA-DD version 1.2). The grid description has been made consistent throughout the revised PoA-DD version 1.2, 31st March 2012.</p> <p><u>Second Response</u></p> <p>In section A.2 of the revised PoA-DD version 1.3, the renewable energy potential of tidal/wave energy has been discussed. Appendix 2 in the revised PoA-DD version 1.3 provides further information related to the current installed capacity and sources in the existing regional electricity distribution systems in PNG.</p>	<p style="text-align: center;">☑</p> <p><u>Assessment of first response</u></p> <p>The description in section A.2 of PoA-DD indicates that the PoA would include renewable energy generation based projects viz. Wind, Solar, Photovoltaic, Hydro, Geothermal, Tidal, Wave, and Renewable Biomass. However under the same section the renewable energy potential of tidal/ Wave energy has not been discussed. In addition potential of biomass based energy discussed in the same paragraph needs elaboration. Further, the existing grid system has not been discussed in detail taking into account the total installed capacity and its sources.</p> <p><u>Assessment of second response</u></p> <p>The potential of biomass and tidal/wave energy is not yet elaborately studied in the region and it is clear from the report at 'Renewable Energy & Energy Efficiency</p>

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Partnership (REEEP)' website: <http://www.reeep.org/index.php?id=9353&text=policy&special=viewitem&cid=71>. However the report further mentions that near Port Moresby, the tidal range is 2.7 metres, compared to 1.1–1.6m in much of the country and a 6m range in parts of the Torres Strait. This clearly indicates that there could be efforts to tap tidal/wave energy in times to come. Same goes with biomass energy; the potential is not properly established as on today but logging and agricultural production can be a potential source of biomass residues in the future. Log exports from PNG are roughly 2 million m³ per year, but as very little are processed locally, not much of biomass residues are left for energy production. DOE believes that with a better revenue flow to the country and economic stabilization, current scenario would give way to more secured and established energy scenario. This PoA by virtue of its core principle would contribute to a sustainable power sector and hence an established economy in an island nation by tapping unexplored renewable energy sources. The CAR is closed.

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			[IRL# 2,10,42]
<p><u>Corrective Action Request No.2.</u> PoA shall define the typical CPAs in order to demonstrate the baseline, additionality etc. Please refer the para 29 of EB 65 annex 3.</p>	A.2.1	In the revised PoA-DD, in particular section E.1, further description has been provided with respect to typical CPAs that will be part of this PoA. Further the appendix 1 has been revised in accordance with section E.1 of the PoA-DD.	<p style="text-align: right;">☑</p> <p>Section E.1 of the PoA-DD describes the methodological combinations available under this PoA. PP has also clarified that each CPA under this PoA can apply only one technology type (with a possibility of multiple components of similar technology type) and the application to more than one methodology would apply when the electricity evacuation system and grid connectivity differs from component to component within a CPA. PP has demonstrated this giving an example in section E.1 of the PoA-DD. Additionality criteria provided in A.4.2.2 of PoA-DD applies to each of the methodologies and methodological combinations shown in Appendix I. Hence additionality criteria provided in A.4.2.2 of PoA-DD encompass additionality requirements of a typical CPA.</p> <p>[IRL# 2,42]</p>
<p><u>Corrective Action Request No.3.</u> PP should clearly indicate in section A.3 if the Project participants are Public or Private entities.</p>	A.3.1	The Project Participants are Public entities. This has been clarified in section A.3.	<p style="text-align: right;">☑</p> <p>It is now clearly specified in section A.3 of PoA-DD that the Project Participants are Public entities. CAR is</p>

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			closed. [IRL# 2,42]
<u>Corrective Action Request No.4.</u> Include the Geographical Map and coordinate range of the Host country in section A.4.1.2	A.4.1.1	<u>First Response</u> The geographical map and coordinate range of the Host Country has been included in section A.4.12 of the revised PoA-DD version 1.2, 31 st March 2012. <u>Second Response</u> In the revised PoA-DD version 1.3, section A.4.1.2, the geographical coordinate range of the Host country has been mentioned in degree decimal format.	<input checked="" type="checkbox"/> <u>Assessment of first response</u> The geographical coordinate range of the Host country in section A.4.1.2 should be mentioned in degree decimal format (XX°XX.XX). <u>Assessment of second response</u> The revised PoA-DD version 1.3, in section A.4.1.2, mentions the geographical coordinate range of the Host country in the correct format. The CAR is closed. [IRL# 2,42]
<u>Corrective Action Request No.5.</u> PP shall indicate in section A.2 of the PoA-DD the list of mandatory policies or regulations for the generating renewable energy based power in the region.	A.4.1.2	Kindly note that it has been clarified in the revised PoA-DD version 1.2, 31 st March 2012 that there are no mandatory policies or regulations for the generating renewable energy based power in PNG.	<input checked="" type="checkbox"/> PP has clearly indicated in the PoA-DD, in A.2 that there are no mandatory policies or regulations for the generating renewable energy based power in PNG. Same has been further established by an undertaking, dated 26-03-2012, from PP in this regard. This was further verified through scrutiny of following policy documents: ✓ Electricity Industry Policy ✓ 15 year Power Development

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			<p>Plan</p> <ul style="list-style-type: none"> ✓ Environment Act 2002 ✓ Environment Amendment Act 2002 ✓ Environment Act 2000 and Statutory Instrument 64 of 2000. ✓ Env- (Procedures) Regulation 2002 and Statutory Instrument No 29 Of 2002. ✓ Electricity Industry Act (chapter 78) consolidated to No 10 of 2002. <p>The fact that 'there are no mandatory policies or regulations for the generating renewable energy based power in the region' was further established during our interview with Mr. Martin Barl, Director, REDD, Office of Climate Change and Development (DNA). CAR is closed.</p> <p>[IRL# 2,7,14,18,20,21,33,34,35,42]</p>
<p><u>Corrective Action Request No.6.</u></p> <p>Indicate the type and category (all category types) of the project activity to be included as independent CPAs in section A.4.2.1 of the PoA-DD and indicate specification of each type of technologies/ measures to be employed in the PoA activity in line with 'development and update of eligibility criteria'</p>	A.4.2.2	<p><u>First Response</u></p> <p>The section A.4.2.1 in the revised PoA-DD has been updated as per the latest "Guidelines for completing the programme design document form for small-scale CDM programmes of activities". The update includes clarity on the types and categories of project</p>	<p style="text-align: right;">☑</p> <p><u>Assessment of first response</u></p> <p>Section A.6 of Annex 13 of EB 66 "Guidelines for completing the programme design document form for small-scale CDM programmes of activities", Version 01 states; "Do</p>

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<p>page03, Annex 03 of EB 65.</p>		<p>activity that can be included as independent CPAs.</p> <p>Further as per the latest guidelines referred above it has been clarified in the PoA-DD section A.4.2.1 that the discussion on specification of each type of technology and measure employed in the project or particular component of the CPA shall be described in detail in CPA-DD. The discussion on the latest guidance referred herein at UNFCCC can be followed from the links provided below :</p> <p>Draft Guideline Guidelines for completing the programme design document form for small-scale CDM programmes of activities was published in EB 66 Agenda</p> <p>http://cdm.unfccc.int/UserManagement/FileStorage/PM4G0VXA8R9Q726DUN5BTZWHEF1SKO</p> <p>Subsequent to publication of agenda a discussion took place during the EB meeting which can referred to in (Slide 6)</p> <p>http://unfccc4.meta-fusion.com/kongresse/cdm66/pdf/291212_EB66_4.1_Revision_of_guidelines_to_align_with_the_Project_Standard.pdf</p>	<p>not provide information that is not essential to understanding the purpose of the PoA and how it reduces GHG emissions. Information related to equipment, systems and measures that are auxiliary to the main scope of the CPAs in the PoA and do not affect directly or indirectly GHG emissions and/or mass and energy balances of the processes related to the CPAs in the PoA should not be included".</p> <p>PP has updated section A.4.2.1 and indicated categorically that specification of each type of technologies/ measures to be employed in the PoA would be detailed at CPA level.</p> <p>However, there is no clear scenario indicating the combinations of project activity in future CPAs. Furthermore, it is not clear from the list of criteria in the PoA-DD that what technology will be used under which methodology.</p> <p>The CAR is open.</p> <p><u>Assessment of second response</u></p> <p>Section E.1 of the PoA-DD de-</p>
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		<p>The final version of “Guidelines for completing the programme design document form for small-scale CDM programmes of activities” as approved by CDM EB can be followed from the link below (please see Annex 13 of EB 66)</p> <p>http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid11.pdf</p> <p><u>Second Response</u></p> <p>In the revised PoA-DD it has been clarified that each CPA under this PoA will involve only one particular technology. Further explanation has been provided in the section E.1 of the PoA-DD and Appendix 1 on the typical CPAs that will be included in this PoA.</p> <p>It is important to note that all the technologies included in the PoA-DD are eligible under AMS I.A, AMS I.D and AMS I.F and the only differentiating factor is grid connection. All the technologies covered in this PoA can use any of the three methodologies taking into consideration their grid connection situation.</p>	<p>scribes the methodological combinations available under this PoA. PP has also clarified that in case of the PoA each CPA under this PoA can apply only one technology type, but can have a no. of projects (components) of similar technology and each component can have different electricity evacuation patterns depending on which more than one methodology can be applied by a single CPA. PP has demonstrated this giving an example in section E.1 of the PoA-DD. The CAR is closed.</p> <p>[IRL#2,9,42]</p>
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<p><u>Corrective Action Request No.7.</u></p> <p>List of eligibility criteria for inclusion of SSC-CPA in the PoA in section A.4.2.2 does not discuss applicability of CPAs with respect to de-bundling, avoidance of double counting, public funding, not registered as a standalone project, uniquely identified geographical boundary. PP should ensure that the eligibility criteria for inclusion of SSC-CPA in the PoA in section A.4.2.2 is in line with the guidelines laid down in Annex 03 of EB 65 report.</p>	A.4.2.2	Please note that the list of eligibility criteria in section A.4.2.2 has been revised in accordance with guidelines provided in Annex 03 of EB65.	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>List of eligibility criteria for inclusion of SSC-CPA in the PoA in section A.4.2.2 now discusses applicability of CPAs with respect to de-bundling, avoidance of double counting, public funding, uniquely identified geographical boundary. PP has now incorporated all eligibility criteria stipulated in para 14 of Annex 03 of EB 65 report The CAR is closed.</p> <p>[IRL#2,9,42]</p>
<p><u>Corrective Action Request No.8.</u></p> <p>Indicate in section A.4 whether the implementation of the project activity require any technology transfer from Annex-I-countries to the host country.</p>	A.4.2.4	Please note it has been clarified in the section A.4 of revised PoA-DD version 1.2, 31 st March 2012 that the project activity could require technology transfer from Annex-I-countries or non Annex 1 countries to the host country.	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has now indicated in section A.4.2.1 that there could be a technology transfer from Annex 1 or Non- Annex countries depending on the type of technology employed by a CPA. The CAR is closed.</p> <p>[IRL#1,2,9,42]</p>
<p><u>Corrective Action Request No.9.</u></p> <p>Provide justification to substantiate that this voluntary coordinated action would not be implemented in the absence of the PoA.</p>	A.4.3.2	The chronology of events showing CDM consideration prior to start of PoA has been included in section A.4.3 of the revised PoA-DD version 1.2, 31 st March 2012.	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has provided the Board Resolution copy as evidence showing CDM consideration prior to start of PoA. The CAR is closed.</p> <p>[IRL#25,26]</p>

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<p><u>Corrective Action Request No.10.</u> PP should present its argument on additionality in line with the latest EB guidelines on Micro scale project activities and small scale project activities and the eligibility criteria shall be sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.</p>	A.4.3.2	<p>Please note the revised PoA-DD, refers to the latest EB guidelines on Micro scale project activities and small scale project activities and the eligibility criteria are sufficiently objective and comprehensive as cross check documents have been included, against each eligibility criteria. For assessment of financial analysis an elaborate checklist of parameters have been included in the Appendix 05 of PoA-DD.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has now provided argument on additionality in section A.4.3 in line with the latest EB guidelines on Micro scale project activities and small scale project activities. Furthermore, PP has included, against each criterion the list of cross check documents. This would assist the CME in regulating the inclusion of CPA. PP has also included checklist of parameters for financial analysis in Appendix 05 of PoA-DD. The CAR is closed. [IRL#1,2,42]</p>
<p><u>Corrective Action Request No.11.</u> There is lack of information in the PoA DD about financial analysis to be done at CPA level:</p> <ul style="list-style-type: none"> • PP shall provide clear set of additionality criteria, both technology wise and the methodology wise. • PP shall also provide a template for each financial analysis indicators viz. IRR, NPV, Simple cost analysis etc., (as mentioned in the PoA DD under eligibility criteria.) which could act as generic template to demonstrate the additionality based on financial analysis. Please refer the EB 65 annex 3 para 11 & 12. 	A.4.3.2	<p>PP has provided additionality criteria which comprise of the following options</p> <ol style="list-style-type: none"> a. Micro-scale additionality b. First of its kind c. Common practice d. Financial parameters e. Barrier analysis <p>All the above criteria are applicable to all the technologies applying all the methodologies. The generic template to demonstrate additionality for financial analysis has been attached along with this response.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has provided additionality criterion in section A.2.2 of PoA-DD covering all applicable technology type, applicable methodologies and its combinations. PP has provided a template for each financial analysis indicator mentioned in the PoA DD under eligibility criteria. This is a generic template to demonstrate the additionality applicable to each eligible CPA. CAR is closed. [IRL#42, 52]</p>

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<p><u>Corrective Action Request No.12.</u> A description of the operational and management arrangements established by PP should be provided in the PoA-DD in line with para 17 of EB 65, Annex 3. Mention clearly the responsibilities and institutional arrangements for data collection archiving.</p>	A.4.4.1	The operational and management system for the PoA has been provided to the DoE (Please refer to document CAR12a - PNG PoA Operational & Management Plan)	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>The operational and management plan for the PoA has been provided by the PP. It clearly defined the responsibilities and institutional arrangements for data collection archiving. The CAR is hence closed. [IRL#31]</p>
<p><u>Corrective Action Request No.13.</u> Clarify in PoA-DD whether stakeholder consultation process is required by regulation/laws in the host country. If yes, document how this stakeholder meeting has been carried out as per the regulations/laws.</p>	D.2.3	<p>Kindly note that for CDM process, stakeholder consultation is not required by regulations or laws in PNG. This has been clarified in the revised PoA-DD version 1.2, 31st March 2012. The stakeholder consultation will be carried out at CPA-DD level. (Please refer the link: http://www.occd.gov.pg/index.php?option=com_content&view=article&id=21&Itemid=72)</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>Currently there is no regulation/laws in the host country that requires stakeholder consultation process in the country. This was verified from the following documents:</p> <ul style="list-style-type: none"> ✓ OCCD guidelines for stakeholder engagement and participation' under development as on date. (http://www.occd.gov.pg/images/stories/documents/Publications_Consultation-Guidelines-Draft-for-public-consultation.pdf). ✓ Environment Act 2002 ✓ Environment Amendment Act 2002 ✓ Environment Act 2000 and Statutory Instrument 64 of 2000.

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			<ul style="list-style-type: none"> ✓ Env- (Procedures) Regulation 2002 and Statutory Instrument No 29 Of 2002. ✓ Guideline for Conduct of Environmental Impact Assessment and Preparation of Environmental Impact Statement, Department of Environment and Conservation, Papua New Guinea. <p>Mr. Martin Barl, Director, REDD, Office of Climate Change and Development (DNA) also clarified during the interview that stakeholders consultation process for small scale renewable projects is not required by regulation/laws in the host country. CAR is closed.</p> <p>[IRL#2,8,20,21,32,33,34,42]</p>
<p><u>Corrective Action Request No.14.</u></p> <p>PP shall ensure that the applicability criteria, mentioned in the PoA-DD, are in line with the applied methodology.</p>	E.2.1.13	Please note in the revised PoA-DD version 1.2, section E.2, 31 st March 2012 the applicability criteria mentioned are in line with the applied methodologies.	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>Some of the applicability criterion from applicable methodologies was missed earlier. PP has now incorporated applicability criteria in section E.2 of PoA-DD in line with the applied methodologies. The CAR is closed.</p> <p>[IRL#2,4,42]</p>
<p><u>Corrective Action Request No.15.</u></p> <p>PP shall discuss the PoA applicability criteria given specifically for PoA project activities in each methodology separately under section E.2 of the PoA-</p>	E.2.1.29	The PoA applicability criteria given specifically for PoA project activities in each methodology has been discussed in section E.2 of the re-	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has appropriately revised section E.2 of the PoA-DD. The CAR is</p>

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DD.		vised PoA-DD version 1.2, 31 st March 2012.	closed. [IRL#2,4,42]
<u>Corrective Action Request No.16.</u> PP shall justify in section E.3 of PoA-DD, the inclusion or exclusion of gases in the project boundary of different types renewable energy based projects as CPAs.	E.3.1.2	Revised PoA-DD version 1.2, 31 st March 2012 section E.3 has included a table to illustrate which emissions sources are included and which are excluded from the project boundary for determination of both baseline and project emissions.	<input checked="" type="checkbox"/> PP has appropriately revised section E.3 of PoA-DD justifying the inclusion or exclusion of gases in the project boundary of different types renewable energy based projects as CPAs. IRL#2,4,42] The CAR is closed.
<u>Corrective Action Request No.17.</u> Include in section E.4 whether the identified baseline scenario is as per the legal requirements/laws and the installation of project activity is not mandatory by any laws or requirements.	E.4.1.1	In the section E.4 of revised PoA-DD version 1.2, 31 st March 2012, the identified baseline scenarios have been included. Further it has also been clarified that the identified baseline scenarios are in accordance with all the laws/requirements and there are currently no laws/requirement which make the installation of project activity mandatory.	<input checked="" type="checkbox"/> PP has clarified in section E.4 of PoA-DD that the identified baseline scenarios are in accordance with all the laws/requirements and there are currently no laws/requirements that make the implementation of renewable energy PoA mandatory. The CAR is closed. [IRL# 2,7,14,18,20,21,33,34,35,42]
<u>Corrective Action Request No.18.</u> Include all the relevant national and sectoral policies in section E.5.2 of PoA-DD.	E.5.1.9	Please note that a list of all relevant national and sectoral policies have been included in section E.5.2 of revised PoA-DD version 1.2, 31 st March 2012.	<input checked="" type="checkbox"/> PP has included a list of all relevant national and sectoral policies have been included in section E.5.2 of revised PoA-DD. [IRL# 2,7,14,18,20,21,33,34,35,42] The CAR is closed.

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<p><u>Corrective Action Request No.19.</u> A CPA can have a standby fossil fuel based auxiliary power consumption or co-firing of fossil fuel (for example, for biomass based projects or hydro); include the project emission parameter for its monitoring. PP shall include provisions for monitoring of project activity emissions from consumption of electricity and/or fossil fuel, by the project activity (CPA), during periodic maintenance and shut down.</p>	E.6.1.3	<p>Kindly note the relevant tools and monitoring parameters with respect to project emissions from fossil fuel consumption or consumption of electricity during periodic maintenance and shut down has been included in section E.7.1 of the revised PoA-DD version 1.2, 31st March 2012.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>Under section E.7.1 'data and parameters to be monitored by each CPA', PP has now included parameters that account for project emissions that could be caused due to fossil fuel firing or electricity consumption during exigencies and plant shut down. The CAR is closed. [IRL#2,29,42]</p>
<p><u>Corrective Action Request No.20.</u> Include in the PoA-DD provisions for monitoring of project emissions from all types of renewable energy technology that can be employed by a CPA (viz. <u>Wind, Solar, Photovoltaic, Hydro, Geothermal, Tidal, Wave, and Renewable Biomass</u>); currently project emissions from only Hydro and Geothermal is discussed.</p>	E.6.1.3	<p>The monitoring parameters for calculating project emissions with respect to renewable technology – hydro, geothermal and biomass have been revised in the PoA-DD version 1.2, 31st March 2012.</p> <p>It is understood that for Wind, photovoltaic, tidal and wave the main emission sources are emission due to fossil fuel consumption and electricity consumption. Relevant monitoring parameters have been included in the revised PoA-DD section E.7.1.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>Under section E.7.1 'data and parameters to be monitored by each CPA', PP has now included parameters that account for project emissions from operation and maintenance of all renewable energy technologies employed in the PoA.</p> <p>The CAR is closed. [IRL#2,4,29,42]</p>
<p><u>Corrective Action Request No.21.</u> PP shall mention all the parameters, pertaining to applicable methodology AMS I.A, that are to be reported in CDM SSC-CPA-DD under section E.6.3 and section E.7.1</p>	E.6.3.1	<p>Kindly note that the monitoring parameters with respect to AMS I.A have been included in the revised PoA-DD version 1.2, 31st March 2012.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has now mentioned all the parameters, pertaining to applicable methodology AMS I.A, to be reported in CDM SSC-CPA-DD under section E.6.3 and section E.7.1.</p>

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			The CAR is closed. [IRL#2,3,42]
<p><u>Corrective Action Request No.22.</u></p> <p>PP shall mention all the parameters, in section E.6.3, option 1 that would be required to calculate Emission factor for the grid, mini grid or captive electricity generation, not limited to the following:</p> <ul style="list-style-type: none"> • Operating Margin (OM), if applicable • Build Margin (BM), if applicable • fuel consumption of each power source • CO₂ emission factor of each fuel • electricity generation of each power source • electricity imports • NCV of fuel type used in mini grid or captive unit <p>Also mention the reference to the methodology or the tool used to calculate Emission factor in section E.6.3, option 1 & 2.</p>	E.6.3.2.4	Kindly note the reference to the methodology or the tool used to calculate emission factor has been described in the revised PoA-DD version 1.2, 31 st March 2012. The relevant procedures followed and parameters monitored for calculating emission factor shall be described in the CPA-DD.	<p style="text-align: right;">☑</p> <p>PP has now included the parameters, in section E.6.3 that would be required to calculate Emission factor for the grid, mini grid or captive electricity generation. It should also be noted that some of the emission factor nomenclatures have also been modified to add unique identity to emission factor nomenclatures. PP has now explicitly mentioned the name of the tools to be used to estimate grid emission factor or other emission factors. The CAR is closed. [IRL#2,3,42]</p>

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<p><u>Corrective Action Request No.23.</u> PP shall correct the parameter as per the methodology to $EG_{BL,y}$ mentioned under option I of section D.7.1 of PoA-DD, ensuring alongside representation of all parameters in line with the applied methodology. $EG_{BL,y}$ is the net electricity exported to the grid and cannot be determined directly as mentioned in the PoA-DD. This should be corrected.</p>	<p>E.7.1.2.1</p>	<p><u>First Response</u> The representation of the parameters has been corrected in the revised PoA-DD version 1.2, 31st March 2012 to be in line with the relevant methodology. $EG_{BL,y}$ is the net electricity exported to the grid and this has been corrected in the PoA-DD.</p> <p><u>Second Response</u> In the revised PoA-DD version 1.3, section D.7.1 it has been clarified that the parameter $EG_{BL,y}$ would be monitored and not calculated.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p><u>Assessment of first response</u> The representation of the parameters has been corrected in the revised PoA-DD to $EG_{BL,y}$ in its relevant section. PoA-DD states that that this parameter would be measured directly from energy meters. Further in subsequent row it is mentioned that 'The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import'. It is not clear if this parameter would be calculated or directly measured or both.</p> <p><u>Assessment of second response</u> PP has now clarified in section D.7.1 of the revised PoA-DD version 1.3, that the parameter $EG_{BL,y}$ would be monitored and not calculated. The CAR is hence closed. [IRL#2,3,42]</p>
<p><u>Corrective Action Request No.24.</u> Specify the measurement and recording frequency of all the parameter as per the methodology or applicable tool. Also include standard QA/QC or cross check measures in the PoA-DD.</p>	<p>E.7.1.2.1</p>	<p>The measurement and recording frequency of all the parameter as per the methodology or applicable tool along with the standard QA/QC or cross check measures have been included in the revised PoA-DD version 1.2, 31st March 2012.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>The measurement and recording frequency of all the parameter as per the methodology or applicable tool has been incorporated on the revised PoA-DD. PP has also include standard QA/QC or cross</p>

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			check measures in the PoA-DD. [IRL#2,42]
<u>Corrective Action Request No.25.</u> Include reference to the UNFCCC tool that would be applied to determine CO ₂ emission factor for the grid/mini grid/captive electricity in year y.	E.7.1.2.2	Kindly note the UNFCCC tool that will be applied to determine CO ₂ emission factor for the grid/mini grid/captive electricity in year y has been included in the revised PoA-DD version 1.2, 31 st March 2012.	<input checked="" type="checkbox"/> PP has now explicitly mentioned that for grid/mini grid the emission factor will be calculated as per procedure provided in AMS I.D i.e. conservative of emission factor as per latest version of "Tool to calculate the emission factor for an electricity system" or weighted average emissions (in tCO ₂ /MWh) of the current generation mix. For captive the emission factor will be calculated as per the procedure provided in the latest version of "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" would be used. The CAR is closed. [IRL#2,42]
<u>Corrective Action Request No.26.</u> Quantity of each fossil fuel and Biomass type used and moisture content of each biomass residue type should be monitored in section E.7.1 of the PoA-DD.	E.7.1.2.5	The monitoring parameters for quantity of biomass and fossil fuel consumed and the moisture content of each biomass type have been included in the section E.7.1 of the revised PoA-DD version 1.2, 31 st March 2012.	<input checked="" type="checkbox"/> PP has included the monitoring parameters for quantity of biomass and fossil fuel consumed and the moisture content of each biomass type have been included in the sec-

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			tion E.7.1 of the revised PoA-DD. PP has also changed the nomenclature for quantity of fossil fuel combusted, 'Q _{FF} ' to 'FC _{i,j,y} ' for more clarity and better representation. CAR is hence closed. [IRL#2,42]
<u>Corrective Action Request No.27.</u> Description of EF _{CO2,y} in section E.7.1, option 2 is not in line with the applied methodology. PP needs to correct it.	E.7.1.2.13	The description of EF _{CO2,y} has been made consistent with the methodology in section E.6.3 of revised PoA-DD version 1.2, 31 st March 2012.	<input checked="" type="checkbox"/> PP has updated the description of parameter EF _{CO2,y} in section E.6.3 of revised PoA-DD and description is consistent with the methodology. The CAR is closed. [IRL#2,3,42]
<u>Corrective Action Request No.28.</u> Indicate in section E.8 of PoA-DD whether the person/entity responsible for completion of baseline is considered a project participant or not? Also indicate, in dd/mm/yyyy format the date of baseline determination, in section E.8 of PoA-DD.	E.8.1.5	Kindly note it has been clarified in section E.8 of revised PoA-DD version 1.2, 31 st March 2012 that the persons responsible for completion of baseline are not considered as project participant. The date of baseline determination has been indicated in dd/mm/yyyy format.	<input checked="" type="checkbox"/> The date of completion of baseline determination has been indicated as 02/07/2011 in section E.8 of PoA-DD. It is further clarified in the same section that person/persons responsible for completion of the baseline are not considered as Project Participants. The CAR is closed. [IRL#1,2,42]
<u>Clarification Request No. 1.</u> PP shall clarify that how is the date of registration of PoA- DD as August 2011 realistic when the site audit is conducted in January 2012?	A.1.3	The registration date of PoA-DD has been revised to 30/09/2012 or date of registration of PoA, whichever occurs later.	<input checked="" type="checkbox"/> PP has indicated the date of registration of the PoA as the starting date of the PoA. PP has now put a realistic date of registration, in sec-

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			tion B.1 of PoA, as 30/09/2012. The CAR is closed. [IRL# 2]
<u>Clarification Request No. 2.</u> Provide the timeline of PoA-DD history and project implementation and major breakthroughs in implementation. PP shall provide documentary evidences supporting the timeline.	A.1.3	Kindly note a table providing timeline of the PoA-DD history and project implementation has been included in the section A.4.3 of revised PoA-DD version 1.2, 31st March 2012. Please note that the documentary evidences supporting timeline has already been submitted.	<input checked="" type="checkbox"/> PP has included a table providing timeline of the PoA-DD history and project implementation in section A.4.3 of revised PoA-DD. Evidences supporting the timeline has been submitted to the DoE. The CR is closed. [IRL#1,2,23,25,26,36,37,38,39,40,41,42]
<u>Clarification Request No. 3.</u> Provide the reference to the statement in section A.2 of the PoA-DD, 'Solar energy is among the largest potential sources in PNG. Average insolation in much of the country is 400–800 W/m ² , with 4.5 to 8 sunshine hours a day'.	A.2.1	The appropriate reference to the statement referred in section A.2 of the PoA-DD has been provided in the revised PoA-DD version 1.2, 31 st March 2012.	<input checked="" type="checkbox"/> PP has referred to 'Pacific Regional Energy Assessment' report for year 2004 to indicate potential of solar energy in the region. The link has been provided in the requisite section of the revised PoA-DD. The CR is closed. [IRL#15]
<u>Clarification Request No. 4.</u> Provide the reference to the statement in section A.2 of the PoA-DD, 'The national electrification rate in PNG is less than 10%. Approximately 90% of the population of PNG live in highly dispersed and culturally diverse rural settlements that are isolated from each other by rugged topography'.	A.2.2	The appropriate reference to the statement referred in section A.2 of the PoA-DD has been provided in the revised PoA-DD version 1.2, 31 st March 2012.	<input checked="" type="checkbox"/> PP has quoted these figures from the draft report 'Papua New Guinea: Town Electrification Project (Project Number: 41504)' and 'Report and Recommendation of the President to the Board of Directors, Proposed Multitranchise Financing

Validation Protocol CDM-PoA-DD

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			<p>Facility Papua New Guinea: Town Electrification Investment Program'; a report by Asian Development Bank. The CR is closed</p> <p>[IRL#16,17,43]</p>
<p><u>Clarification Request No. 5.</u></p> <p>Submit evidence to show that the proposed PoA is a voluntary action by the coordinating/managing entity.</p>	A.2.5	<p>Please find attached the documentary evidence CL 4a - Voluntary Action Declaration.</p>	<p><input checked="" type="checkbox"/></p> <p>PP has provided an undertaking to ascertain that the proposed PoA is a voluntary action by the coordinating/managing entity. The CR is closed.</p> <p>[IRL#30]</p>
<p><u>Clarification Request No. 6.</u></p> <p>PP shall provide the DoE, letter of approval from DNA or proof of application for host country approval.</p>	A.3.2	<p>The Letter of authorization & letter of approval from DNA of Independent State of Papua New Guinea will be provided as soon it is received. It has been clarified in the revised PoA-DD that the PoA will proceed for registration on a unilateral basis. Hence the Letter of authorization & letter of approval from DNA of Sweden will not be required.</p>	<p><input checked="" type="checkbox"/></p> <p>The Letter of authorization & letter of approval from DNA of Independent State of Papua New Guinea is not yet received. DoE has the evidence that application for the letter of authorization & letter of approval from DNA was made. Mr. Martin Barl, Director, REDD, Office of Climate Change and Development (DNA) also clarified during the interview that the application for Host Country Approval has been made by the PP and the approval process has already begun.</p> <p>As now PoA will proceed for registration on a unilateral basis, the</p>

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			letter of authorization & letter of approval from DNA of Sweden will not be required. The CR is closed. [IRL#19,22,23,48]
<u>Clarification Request No. 7.</u> PP shall provide evidence to show that the technology would not be substituted within the project period.	A.4.2.8	<u>First Response</u> Please find attached the documentary evidence CL 7a- No Technology Substitution Letter. <u>Second Response</u> In the revised PoA-DD version 1.3, section A.4.2, eligibility criteria with regards to no substitution of technology during the project period has been included.	<input checked="" type="checkbox"/> <u>First Assessment</u> PP has provided an undertaking to establish the fact that the technology would not be substituted within the project period. However this should also for a part of eligibility criteria for inclusion of CPAs. <u>Second Assessment</u> Revised PoA-DD version 1.3, in section A.4.2, now mentions the eligibility criteria with regards to 'no substitution of technology during the project period'. The CR is hence closed. IRL#1,42,44]
<u>Clarification Request No. 8.</u> PP shall justify giving proper evidence that the project activity is a voluntary coordinated action and that the PoA is not implementing a mandatory policy/ regulation.	A.4.3.1	Please find attached the documentary evidence CAR 9a - Voluntary Action Declaration.	<input checked="" type="checkbox"/> PP has provided an undertaking affirming that the project activity is a voluntary coordinated action and that the PoA is not implementing a mandatory policy/ regulation. The CR is closed. [IRL#1,2,30,42]
<u>Clarification Request No. 9.</u>	B.1.1	The starting date mentioned in the published	<input checked="" type="checkbox"/>

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PP needs to provide the rationale behind choosing starting date of PoA-DD as 01-09-2011. PP shall also provide evidence supporting the same.		version was a mistake. This has been corrected in the revised PoA-DD version 1.3 to '30/09/2012 or date of Registration of the PoA, whichever occurs later'.	The start date of the PoA-DD has been corrected as 30/09/2012 or date of Registration of the PoA, whichever occurs later. The CR is closed. [IRL#1,2,42]
<u>Clarification Request No. 10.</u> It is understood that clarifications have been sought from CDM small scale working group with respect to applicability of all the three methodologies (AMS I.D, AMS I.F, AMS I.A) in a single PoA program (Vide Clarification no. SSC_547). It is also understood that the application of methodologies AMS I.D and AMS I.F together is considered reasonable by the SSC Working Group (clarification) SSC_537 However, as per CDM guidelines on application of multiple small scale CDM methodologies (para 28, 29 of Annex 03 of EB 65), only combination of methodologies are allowed; how can PP justify the applicability of all the three methodologies in a single PoA program where any of the CPA can apply to any single methodology? It is required to be further clarified with UNFCCC in line with para 30 of Annex 03 of EB 65.	E.1.1.1	<p>The PP had requested a clarification (SSC_621) with respect to using different methodology combinations as well as different renewable technologies mentioned in the PoA-DD.</p> <p>As per clarification provided by SSC-WG (Refer SSC 621) – 'The methodologies AMS-I.A, AMS-I.D, AMS-I.F may be applied in combination in individual CPAs as well as across several CPAs in a PoA, as long as all methodology applicability conditions are met and are encompassed in the PoA eligibility criteria'.</p> <p>Please see the final response from SSC WG on the clarification request Annexed to this document.</p>	<input checked="" type="checkbox"/> As per the clarification SSC_621 provided by SSC-WG 'The methodologies AMS-I.A, AMS-I.D, AMS-I.F may be applied in combination in individual CPAs as well as across several CPAs in a PoA, as long as all methodology applicability conditions are met and are encompassed in the PoA eligibility criteria'. Hence applicability any of the three methodologies in a single CPA is justified. The CR is closed. [IRL#2,5,6,42]
<u>Clarification Request No. 11.</u> PP shall provide the standard Emission reduction calculation sheet which would be used for ER computation from each CPA type.	E.6.2.2	The standard emission reduction calculation sheet which would be used for ER computation for each CPA type has been provided (CAR 22a).	<input checked="" type="checkbox"/> PP has provided the standard emission reduction calculation sheet that would be used for ER computation from each CPA type. The CR is closed. [IRL#29]

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<p><u>Clarification Request No. 12.</u></p> <p>PoA-DD in section E.6.3 clearly indicates that the hydro power based CPAs would be Greenfield projects and hence would not cause any increase in capacity of reservoir, then why the parameter Cap_{BL} been discussed in the PoA-DD?</p>	E.6.3.2.1	<p>Please note that the monitoring parameter Cap_{BL} and A_{BL} has been removed from the revised PoA-DD version 1.2, 31st March 2012.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>As PoA would incorporate only Greenfield hydro power based CPAs, the irrelevant parameters Cap_{BL} and A_{BL} have been removed from revised PoA-DD. The CR is closed.</p> <p>[IRL#02,03,42]</p>
<p><u>Clarification Request No. 13.</u></p> <p>PP shall elucidate the 'standard industry norm' that would be used for calibration of the energy meter. PP shall further clarify that how the accuracy level for parameter EB_{BL,y} would be ensured for all CPAs?</p>	E.7.1.2.1	<p>Kindly note the details on QA/QC procedures have been revised in section E.7.1 of the revised PoA-DD. The section clarifies that all the energy meters will be subject to Australian, national or IEC standard and will use meters of 0.5 class or with better accuracy. Information on calibration frequency has also been included in the section.</p> <p>All the CPA's under this PoA shall follow the QA/QC procedures described in PoA-DD for energy meters.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p> <p>PP has provided details on QA/QC procedures have been revised in section E.7.1 of the revised PoA-DD. The section clarifies that all the energy meters will be subject to national or IEC standard and will use meters of 0.5 class or with better accuracy. The CR is hence closed.</p> <p>[IRL#02,42]</p>


Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)

Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-


Validation of the CDM PoA:
Programme of Activities (PoA) for sustainable Renewable Energy Power Generation
Papua New Guinea (PNG)







Annex 2: Information Reference List

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Reference No.	Document or Type of Information	Date of document
1	<p>On-site interviews and inspections of the project site of the “Program of Activities (PoA) for sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)” by TÜV SÜD validation team, Conducted between 01-02-2012 to 04-02-2012.</p> <p><u>Validation team on site:</u> Supratik Dutta TÜV SÜD South Asia Kumud Ranjan TÜV SÜD South Asia</p> <p><u>Interviewed persons :</u> Susan Spa Financial Analyst, PNG Power Limited (PPL) TitusTsigese Environmental Officer, PPL Damian Sonny Renewable Energy and Carbon Specialist Darshak Mehta CDM Consultant, ADB Francis Uratun Manager Infrastructure Planning, PPL Tako Gwae DPA FS Wilson Wase Private Consultant John Pai Advisor-Planning Oropa Kate Huges Future Carbon Fund, ADB Roy Isara Waju Youth Leader Daniaz Sakiki Hydro Association Chairman Cedric Sara Kokoda Ward Councilor Taylor Batuf Waju Leters Aubrey Karu Board Chairman Ann Combere Waju Women’s representative Jerom Geroia Waju Community Representative Martin Barl Director, REDD, Office of Climate Change and Development (DNA). Danny Nekitel Policy Analyst Mitigation, OCCD (DNA) Dennis Warami Senior Scientific Officer (Department of Environment and Conservation)</p>	-

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Reference No.	Document or Type of Information	Date of document
	Bendan Trawen Senior Scientific Officer (Department of Environment and Conservation)	
2	UNFCCC homepage for the PoA: http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/KGHGC1KOOSFUZW07K5EZBAFSG28M2A/view.html	--
3	Approved small scale baseline and monitoring methodologies AMS-I.F. ver. 2 , AMS-I.D. ver. 17 , AMS-I.A. ver. 14 .	--
4	Clarification regarding baseline calculation in the case of a Greenfield project and provision of leakage in the case of a PoA for AMS-I.F:  SSC 547	submitted to UNFCCC on 06/07/2011.
5	Clarification on the combination of multiple methodologies and technologies for PoAs (submitted 23 Feb 12):  SSC 621 .	submitted to UNFCCC on 23/02/2012
6	Clarification on the use of multiple methodologies for PoA (AMS-I.D and AMS-I.F / AMS-III.F, AMS-III.G and AMS-III.H):  SSC 537	submitted to UNFCCC on 23/05/2011
7	Important procedural and policy documents hosted at Office of Climate Change and Development (OCCD) website: http://www.occd.gov.pg/index.php?option=com_content&view=article&id=21&Itemid=72 .	Last accessed on 18/05/2012
8	Draft OCCD guidelines for stakeholder engagement and participation http://www.occd.gov.pg/images/stories/documents/Publications_Consultation-Guidelines-Draft-for-public-consultation.pdf .	Last accessed on 18/05/2012
9	Draft Guidelines for completing the programme design document form for small-scale CDM programmes of activities was published in EB 66 Agenda: http://cdm.unfccc.int/UserManagement/FileStorage/PM4G0VXA8R9Q726DUN5BTZWHEF1SKO Reference link to the discussion subsequent to publication of EB 66 Agenda: http://unfccc4.meta-union.com/kongresse/cdm66/pdf/291212_EB66_4.1_Revision_of_guidelines_to_align_with_the_Project_Standards.pdf .	Last accessed on 18/05/2012

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Reference No.	Document or Type of Information	Date of document
10	The potential of biomass and tidal/wave energy report at 'Renewable Energy & Energy Efficiency Partnership (REEEP)' website: http://www.reeep.org/index.php?id=9353&text=policy&special=viewitem&cid=71 .	Website last accessed on 08/06/2012
11	Country report on Emergency & Disaster Management and Disaster Risk Reduction in PapuaNew Guinea, prepared by National Disaster Centre, Papua New Guinea (Country report).	Submitted to DOE on 02/02/2012
12	Papua New Guinea Vision 2050, published by National Strategic plan task force, PNG http://www.pngvision2050.gov.pg/ http://www.treasury.gov.pg/html/publications/files/pub_files/2011/2011.png.vision.2050.pdf .	Website last accessed on 08/056/2012
13	Climate compatible development for Papua New Guinea	August 2010
14	Electricity Industry Policy in the host country	November 2011
15	Pacific Islands Renewable Energy Project, Pacific Regional Energy Assessment 2004, Papua New Guinea National report Volume 10. http://www.sprep.org/att/publication/000487_PIREP_PNG_NatRept.pdf .	Website last accessed on 08/06/2012
16	Report and Recommendation of the President to the Board of Directors, Proposed Multitranch Financing Facility Papua New Guinea: Town Electrification Investment Program. Report by Asian Development Bank.	August 2010
17	Power Sector Development Plan, Final report, by Asian Development Bank.	April 2009
18	15 Year Power Development Plan (2011-2025), report by PPL.	Submitted to DOE on 02/02/2012
19	The Interim DNA approval guide.	Submitted to the DOE by the Director, REDD, Office of Climate Change and Development (a DNA member) of PNG on 04/02/2012
20	Environment Act 2002, Papua New Guinea.	Submitted to the DOE by the representatives of Department of

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Reference No.	Document or Type of Information	Date of document
		Environment and Conservation, Govt. of PNG on 04/02/2012
21	Environment Amendment Act 2002, Papua New Guinea.	Submitted to the DOE by the representatives of Department of Environment and Conservation, Govt. of PNG on 04/02/2012
22	Environment Permits Process for level three activities.	Submitted to the DOE by the representatives of Department of Environment and Conservation, Govt. of PNG on 04/02/2012
23	Environment Permit Application, to Department of Environment and Conservation, of first CPA, Divune Hydropower project.	06/06/2011
24	Environment Impact Assessment Process.	Submitted to the DOE by the representatives of Department of Environment and Conservation, Govt. of PNG on 04/02/2012
25	Board resolution for CDM in proposed PoA scheme, Multi– tranche financing facility PNG- Town electrification Program.	30/09/2010
26	Board resolution for extension of PoA to other renewable technologies.	03/05/2011

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Reference No.	Document or Type of Information	Date of document
27	Popondetta and Kokoda grid structure and generation.	09/06/2011
28	CPA record keeping template, Version 01.	05/01/2012
29	Emission reduction calculation template, Version 01.	05/01/2012
30	Declaration from PNG Power Limited that the PoA is a voluntary co-ordinated Action.	26/03/2012, Submitted to the DOE on 04/04/2012
31	PoA operation and Management Plan, Version 01.	09/06/2012
32	Guideline for Conduct of Environmental Impact Assessment and Preparation of Environmental Impact Statement, Department of Environment and Conservation, Papua New Guinea.	01/01/2004
33	Environment Act 2000 and Statutory Instrument 64 of 2000.	29/11/2000
34	Environment Regulation 2002 and Statutory Instrument No 29 of 2002.	Submitted to the DOE on 04/02/2012
35	Electricity Industry Act (chapter 78) consolidated to No 10 of 2002.	October 2007
36	Email communication for survey of Divune hydro boundaries.	09/05.2012
37	EOI-Validation advertisement for CDM PoA in 'The National' newspaper.	04/02/2011
38	EOI-Validation advertisement for CDM PoA in 'Post Courier' newspaper.	04/02/2011
39	Email Communication regarding dispatch of Cargo containing survey equipment to Popondetta.	20/03/2012
40	Email regarding status report of survey for transmission line and project.	20/12/2011
41	Consultant's back to office report BTOR.	21/04/2010
42	PoA-DD version 1.7	22/11/2012
43	Draft report: Papua New Guinea: Town Electrification Project (Project Number: 41504) http://www2.adb.org/documents/iees/png/41504/41504-02-png-iee-01.pdf	August 2010, Website last accessed on 25/06/2012

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Reference No.	Document or Type of Information	Date of document
44	Declaration regarding 'No technology substitution' during the crediting period.	26/03/2012, Submitted to the DOE on 04/04/2012
45	CPA-DD generic template Version 03	07/11/2012
46	Heads of Agreement between ADB and PPL	22/10/2010
47	Prior consideration of CDM form sent to UNFCCC and DNA	05/05/2010
48	Confirmation of receipt of prior consideration of CDM form sent to DNA	04/10/2010
49	Acknowledgement email for application for 'Host Country Approval' from Office of Climate Change and Development (DNA)	03/07/2012
50	Attendance sheet of participants in meetings conducted during on-site audit	04/02/2012
51	Host Country Approval letter from Office of Climate Change and Development, PNG	21/08/2012
52	Template for investment analysis, Version 01	Submitted to the DOE on 09/11/2012

Annex 3: Appointment Certificates



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Agarwal, Nikunj fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	22.03.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		22.03.12	22.03.12	22.03.12	22.03.12	1.2, 3.1, 13.1, 13.2, 15.2

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	22.03.12					
Further countries						
Financial Expertise						
Date	22.03.2012					

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	22.03.12
13.1_Waste handling and disposal	22.03.12
3.1_Energy demand	22.03.12
13.2_15.2_Animal waste management	22.03.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0001/001.

Date	Signature
21.11.2012: Extension of Validity	

CERTIFICATE OF APPOINTMENT

Mr. Ranjan, Kumud fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	10.05.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		10.05.12				

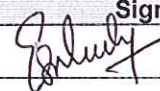
Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	10.05.12					
Further countries						
Financial Expertise						
Date						

Qualification in technical areas	
Technical Area	Date

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0037/001.

Date	Signature
21.11.2012: Extension of Validity	



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Dutta, Supratik fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	07.04.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		07.04.12	07.04.12			1.2

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	07.04.12					
Further countries						
Financial Expertise						
Date	07.04.12					

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	07.04.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0012/001.

Date	Signature
21.11.2012: Extension of Validity	



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Habbu, Ajit fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	21.11.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date						1.1, 4.10

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	21.11.12					
Further countries						
Financial Expertise						
Date						

Qualification in technical areas	
Technical Area	Date
1.1_4.10_Thermal energy generation	21.11.2012

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0016/001.

Date	Signature
21.11.2012	



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Mitterwallner, Robert fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	23.03.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		23.03.12	23.03.12	23.03.12	23.03.12	1.2, 4.1, 4.3, 13.1

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	23.03.12		23.03.12			
Further countries						
Financial Expertise						
Date						

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	23.03.12
4.1_Cement sector	23.03.12
4.3_Iron and steel sector	23.03.12
13.1_Waste handling and disposal	23.03.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0030/001.

Date	Signature
21.11.2012: Extension of Validity	



South Asia

CERTIFICATE OF APPOINTMENT

Mr. Kleiser Thomas fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	25.03.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		25.03.12	25.03.12	25.03.12	25.03.12	1.1, 1.2, 4.1, 4.10

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	25.03.12					
Further countries						
Financial Expertise						
Date	25.03.12					

Qualification in technical areas	
Technical Area	Date
1.1_4.10_Thermal energy generation....	25.03.12
1.2_Energy generation from renewable energy source	25.03.12
4.1_Cement sector	25.03.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0022/001.

Date	Signature
21.11.2012: Extension of Validity	