

<b>PoA Title</b>	<b>TATS Solar Lantern Programme of Activities</b>
<b>Real Case CPA Title</b>	TATS Solar Lantern Programme of Activities Kenya - CPA-01
<b>ERM CVS Project Reference</b>	2211.V1
<b>Client Name</b>	Total Access to Solar
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## CDM Validation Report

### ERM Certification and Verification Services

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<b>Version Control</b>	<b>Date</b>
Version 1.0	11 July 2012 (Draft Validation Report)
Version 2.0	30 December 2012 (final report)

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## Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CL	Clarification request
CME	Coordinating/Managing Entity
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
COP	Conference of the Parties
CPA	PoA's Component Project Activity
CPA-DD	CPA Design Document
DNA	Designated National Authority
FAR	Forward Action Request
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
GHG	Greenhouse Gas
GSP	Global Stakeholder Process
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of approval
MOP	Meeting of the Parties
MP	Monitoring Plan
NCV	Net Calorific Value
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
UNFCCC	United Nations Framework Convention on Climate Change
VVs	CDM Validation and Verification Standard

## Project/Party specific abbreviations

TATS	Total Access to Solar
DBT	Daily Burn Time
LED	Light-emitting diode
CFL	Compact fluorescent light/lamp

# 1 PoA Information

## 1.1 Key information

<b>PoA Title</b>	<b>TATS Solar Lantern Programme of Activities</b>
<b>PoA Location(s)</b>	Kenya
<b>Host Party(ies)</b>	Kenya
<b>Other Party(ies)</b>	Not applicable
<b>Coordinating/Managing Entity</b>	Total Access To Solar
<b>Project participants</b>	Total Access to Solar

<b>Methodology(ies) used</b>	AMS-III.AR. Substituting fossil fuel based lighting with LED/CFL lighting systems Version 04
<b>Methodological tool(s) used</b>	N/a
<b>Sectoral Scope(s)</b> (as per <a href="http://cdm.unfccc.int/DOE/scopes.html">http://cdm.unfccc.int/DOE/scopes.html</a> )	1


<b>PoA Design Document GSP Version</b>	Date: 19 March 2012	<b>PoA Design Document Final Version</b>	Date: 20 December 2012
	Version Number: 01		Version Number: 07

<b>Start date of the PoA</b>	23 May 2012
<b>Duration of the PoA</b>	28 Years

<b>Date(s) of validation site visit</b>	29- 31 May 2012
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## 2 Summary and Validation Opinion

<b>PoA Title</b>	<b>TATS Solar Lantern Programme of Activities</b>
<b>Name of Client</b>	Total Access To Solar
<b>Basis of validation</b>	<p>ERM CVS based its validation work on:</p> <ul style="list-style-type: none"> <li>• CDM approved monitoring methodology(ies) AMS-III.AR. Substituting fossil fuel based lighting with LED/CFL lighting systems Version 04</li> <li>• CDM Validation and Verification Standard (version 03.0)</li> <li>• ERM CVS's internal CDM validation methodologies and protocols</li> <li>• CDM decisions and guidance issued by the CDM Executive Board</li> <li>• UNFCCC criteria for the Clean Development Mechanism</li> <li>• Host Country criteria for the Clean Development Mechanism</li> </ul>
<b>Responsibilities of ERM CVS</b>	ERM CVS is responsible to provide a thorough independent third party assessment of the proposed CDM programme of activities (PoA) to ensure that the proposed CDM PoA meets all the identified and applicable criteria for registration of PoA under the CDM.
<b>Responsibilities of Project participants</b>	The CME is responsible for preparing the PoA-DD, and real case CPA-DD, supporting documentation and providing all necessary evidences to support the information included in the PoA-DD and real case CPA-DD.
<b>Activities performed</b>	<p>ERM CVS conducted its activities in accordance with the CDM Validation and Verification Standard. The validation consisted of a review of project documentation, site visits, interviews with relevant personnel, cross checking information through other reliable sources and reporting. Validation work was based on a validation protocol that sets out relevant CDM requirements. Where necessary, Clarification Requests and Corrective Action Requests were raised and closed out with the CME. The validation work was subject to detailed Technical Review and assessment prior to submission.</p> <p>No component of the PoA was excluded from the validation.</p>
<b>ERM CVS Conclusion</b>	<p>ERM Certification and Verification Services (ERM CVS) has performed the validation of the programme of activities proposed to be registered as a single CDM project activity against the criteria for the Clean Development Mechanism as set out by the Conference of the Parties and the UNFCCC CDM Executive Board, and host country criteria. The validation employed standard auditing techniques, and addressed the requirements of the CDM Validation and Verification Standard.</p> <p>The Party involved in the programme fulfils the criteria for participation in the CDM, and has issued a letter of approval (LoA) for the Programme of Activities and authorised the Project participants and the coordinating/managing entity. The LoA of the host Party confirms the contribution of the programme of activities towards sustainable development.</p> <p>The validation has provided sufficient evidence to demonstrate that the programme of activities is not the baseline scenario, and that emission reductions would be additional to what would have taken place in the absence of the CDM programme of activities, via an unlimited number of CDM programme activities.</p> <p>The programme of activities meets the applicability criteria and correctly applies methodology AMS-III.AR. Substituting fossil fuel based lighting with LED/CFL lighting systems Version 04, and is therefore expected to result in real, measurable and long term reductions in greenhouse gas emissions.</p> <p>The monitoring plan provides for the collection and archiving of data sufficient to ensure that emission reductions can be verified. The DNA of the host Party has confirmed that the programme of activities assists in meeting sustainable development criteria.</p> <p>The description of the programme of activities includes verifiable eligibility criteria for inclusion of</p>

	<p>project activities as CDM programme activities (CPAs) under this PoA, and appropriate operational and management arrangements have been established for the implementation of the PoA.</p> <p>In summary, it is the opinion of ERM CVS that the programme of activities as described in the PoA-DD Version 07 of 20 December 2012, meets all stated criteria of the CDM, correctly applies the methodology, and is expected to result in real, measurable and long term emission reductions.</p> <p>ERM CVS therefore requests the CDM Executive Board approves registration of the programme of activities.</p>
<b>Signed on behalf of ERM CVS</b>	
<b>Name:</b>	Melanie Eddis
<b>Date:</b>	30 December 2012

## 3 Introduction

### 3.1 Validation Objectives

The purpose of validation is to ensure a thorough, independent assessment of activities submitted for registration as a proposed CDM Programme of Activities (PoA) against the applicable CDM requirements.

The DOE is responsible for reporting the results of its assessment in a validation report and submitting this validation report, along with the supporting documents to the CDM Executive Board as part of the request for registration of a proposed CDM PoA.

The DOE also presents its opinion on the compliance of the proposed CDM PoA with the applicable CDM requirements, and only requests registration if this is a positive opinion.

In the course of validation, ERM CVS assesses additionality of the PoA; eligibility criteria for inclusion of a proposed CPA in the registered PoA; operational and management arrangements established by the coordinating/managing entity (CME) for the implementation of the PoA; applicability of an approved CDM methodology; monitoring plan (MP); Compliance with the relevant host country criteria; and Consistency between CDM-POA-DD and the CDM-CPA-DD to be used for inclusion of a CPA in the registered PoA.

#### 3.1.1 Validation Criteria

ERM CVS applies the following principles in performing its validation:

- Consistency
- Transparency
- Impartiality, independence and safeguarding against conflicts of interest
- Confidentiality

In all aspects of its work, ERM CVS ensures that the information and data reported are accurate, conservative, relevant, credible, reliable and complete.

### 3.2 Scope

The validation scope addresses the Programme of Activities as described in the Programme of Activities design document (PoA-DD), and CDM Project Activity design document applied to an example CPA (real case CPA-DD) and associated documentation. The PoA-DD and real case CPA-DD and associated documentation are reviewed against the criteria and requirements stated in the CDM Validation and Verification Standard (VVS) and Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, as well as relevant decisions made by the CDM Executive Board.

The validation scope also included an assessment of completeness and accuracy of documentation, evaluation of evidences, information and assumptions made in the PoA-DD and CPA-DD and supporting documentation. Findings of the validation of the real-case CPA are described in a separate CPA validation report.

### 3.3 Contract Review

Prior to contracting with the client, a full review of the project and the validation requirements was made. This addressed both commercial risk and project risks associated with conducting the validation activities and confirmed the availability of an appropriately qualified team to conduct the validation.

### 3.4 Validation Personnel

Based on ERM CVS's review of the PoA, a validation team was established that takes into account the coverage of the technical area(s), sectoral scope(s) and relevant host country experience.



Personnel who were involved in the validation of this PoA were:

## Validation Team

Name	Role	CDM Requirements	Technical area	Financial Expertise	Participated in site visit?
Neringa	Team Leader	Yes	Fully Competent	No	Yes
Ritu Kumar	Assessor under Observation	Yes	No	No	Yes

## DOE Head Office

Name	Role	CDM Requirements	Knowledge relevant to the technical area
Jonathan Avis	Technical Reviewer	Yes	Fully Competent

## 3.5 Summary of CVs of the validation personnel

**Neringa Pumputyte** has been working in CDM for the past 5 years, initially as a consultant and project developer and now as a client account manager and assessor. Neringa has completed 2 validations as an assessor in LFG and fugitive emissions (oil and gas) and a verification in demand-side energy efficiency, and is working on validation of three PoAs. Neringa has worked with a project developer on hydro and cook stove projects as well as numerous waste handling projects. Neringa has completed the ERM CVS CDM training, as well as gold standard general and methodology training. Neringa holds a BSc and MSc in Geography from Vilnius University, and an MSc in Environmental Change and Management from the University of Oxford.

**Ritu Kumar** is a Civil Engineer with over 10 years experience in environmental consultancy, specifically in climate change services. Before joining ERM CVS she gained 9 years experience in the carbon markets, having previously worked with project developers, Carbon trading institutions, investment banks and consultancy organisations. Her work included overall GHG project management, including due diligence on carbon projects (CDM/JI), CDM Project Design Document (PDD) development, quality assurance and technical review of CDM project documentation, the development of GHG monitoring plans and project related risk assessments, and management of CDM projects through the validation, registration, verification and issuance stages on numerous complex projects. She has worked on projects related to renewable energy (Geothermal, Wind, Solar), power, industrial gases and waste to energy (Biomass, biomethanation). Before Joining ERM CVS, she was associated with organisations like PwC, CantorCo2e, AES Climate Solutions and ESBI (Irish utility).

**Jonathan Avis** is CDM Business Manager for ERM CVS, and a GHG Assessor and Technical Reviewer with over 6 years experience in the CDM. Since joining ERM CVS Jonathan has worked as a Technical Reviewer or GHG Assessor on more than 30 CDM validations in Renewable Energy (scope 1), more than 10 CDM validations in Manufacturing Industries (scope 04), 6 CDM validations in Mining (scope 8), and 5 CDM validations in Waste Handling and Disposal (scope 13). Jonathan's previous work experience involved screening and due diligence of carbon projects, Project Design Document (PDD) development, quality assurance and technical review of CDM project documentation, the development of carbon monitoring plans, and management of carbon projects through the validation, registration and verification stages. Jonathan has completed the ERM CVS CDM training as well as the GHGMI Renewable Energy training and Gold Standard training. Jonathan holds a BA in Geography and an MSc in Environmental Change and Management from the University of Oxford.

## 4 Validation Approach

In carrying out its validation work, ERM CVS has:

- (a) Determined whether the proposed PoA complies with the requirements of paragraph 37 of the CDM Modalities and Procedures (M&Ps), the applicability conditions of the selected methodology and guidance issued by the Board;
- (b) Assessed the claims and assumptions made in the PoA Design Document (PoA-DD). The evidence used in this assessment has not been limited to that provided by the project participants.

The validation was carried out in accordance with the most recent version of the VVS and relevant EB standards and guidance for PoAs. The validation process employed standard auditing techniques and undertook necessary cross-checks and follow-up actions to ascertain the correctness of the information. The validation team included staff with experience in the relevant technical areas within the sectoral scope, and included local host country expertise, sectoral knowledge, and financial expertise. The validation report and associated documents have undergone a thorough technical review by ERM CVS before being submitted to the CDM Executive Board for registration. The validation consisted of the following key stages:

- Upload of the PoA-DD, generic CPA-DD and real case CPA-DD for Global Stakeholder Process (GSP), receipt of any comments from stakeholders
- Review of documentation including PoA-DD, and real case CPA-DD applied to the first CPA, methodology and key supporting documents and references
- A site visit including Interviews with personnel responsible for developing the PoA and first CPA and visits to example distribution points
- Development of a draft validation report, identifying non-compliances including Corrective Action Requests (CARs) and Clarification Requests (CLs), taking into account findings of the GSP, desk review and site visit / interviews
- Resolution of outstanding issues (CARs and CLs) and development of a final validation report and validation opinion
- Independent technical review and report approval

### 4.1 Global Stakeholder Process

At the start of the validation, in accordance with the latest version of the “Procedures for processing and reporting on validation CDM project activities”, the unvalidated PoA-DD and real case CPA-DD supplied by the client were uploaded on the UNFCCC website to be available for global stakeholder review. The GSP period was from 23 May 2012- 21 June 2012 . No comments were received.

### 4.2 Document Review

A detailed document review of the PoA-DD, real case CPA-DD, methodology and all other associated documentation and references took place in advance of the site visit, and additional documents that were not available for the desk review were requested for review during the site visit. The document review includes:

- A review of data and information to verify the correctness, credibility and interpretation of presented information;
- Cross checks between information provided in the PoA-DD and real case CPA-DD and information from other sources, not limited to those provided by the PPs

Where the review of the PoA-DD or real case CPA-DD at the document review stage raised issues, these were further reviewed and validated through supporting documentation and cross-checking from other sources and interviewing relevant personnel involved in the PoA and real case CPA during the site visit. During the document review the project team also compared the proposed PoA with available information relating to projects or technologies similar to the proposed CDM PoA under validation. Where appropriate, the validation team assessed the appropriateness of formulae and the correctness of calculations presented by the CME. A list of all documents reviewed or referred to in the course of this validation is included in Appendix A.

## 4.3 Site visit and Interviews

The site visit included interviews with the CME and operator of the first CPA, as well as visits to example distribution points of solar lamps.

Site visits and interviews provide additional and background to the PoA as well as cross checks with other documentation. Interviews were undertaken with relevant stakeholders in the host country, as well as personnel with knowledge of the PoA design and implementation. A list of interviewees, and the main topics discussed with each person can be found in appendix A.

The site visit was designed to enable the validation team to

- undertake a detailed review of additional documentation and verify the supporting documentation;
- assess the validity of the boundary, both of the PoA and CPAs;
- cross-check the validity of the information contained in the POA-DD and real case CPA-DD with other sources of information; and
- interview relevant stakeholders involved in the PoA and real case CPA as required.

## 4.4 Preparation of Draft Validation Report

Based on the findings of the desk review and site visit, ERM CVS prepared a draft validation report including a list of CARs and CLs, and provided this to the PPs. Where issues are identified that need to be further elaborated, researched or added to in order to confirm that the PoA meets the CDM requirements and can achieve credible emission reductions, ERM CVS identified these issues in the DVR so that they could be discussed with the PPs and concluded upon in the final validation report (FVR).

### 4.4.1 Remediation requests

Where issues were identified, ERM CVS raised one of the following remediation requests:

Clarification Request (CL): where information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Corrective Action Request (CAR): where:

- Mistakes have been made that will influence the ability of the PoA to achieve real, measurable additional emission reductions;
- The CDM requirements have not been met; or
- There is a risk that emission reductions cannot be monitored or calculated.

Forward Action Requests (FAR): where it was necessary to highlight issues related to project implementation that require review during the first verification of the PoA. FARs shall not relate to the CDM requirements for registration.

CARs and CLs must be 'closed out' before the validation can be concluded. Close out is only possible where the PPs modify the project design, rectify the PoA-DD or provide adequate additional explanation or evidence that satisfies ERM CVS's concerns. The validation process may be halted until the CARs and CLs are addressed to the validation team's satisfaction.

## 4.5 Final Validation Report and Validation Opinion

The final validation report (FVR) is completed when the CARs and CLs have been closed out to the satisfaction of ERM CVS. The FVR includes the validation opinion that sets out the validation conclusion regarding the compliance of the POA with CDM requirements. Validation of the real-case CPA is reported in a separate CPA validation report.

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## 4.6 Internal Quality Control

The process of validation and decision of the validation team has been subject to an independent Technical Review. The scope of the Technical Review process is to independently assess that all procedures have been followed, necessary requirements have been met, and all conclusions are justified. The final validation decision is based on the findings and conclusions of the validation team, assessing the compliance of the PoA with the CDM requirements, and the technical evaluation of the independent technical reviewer. The final report is then reviewed and approved by the qualified signatory / final decision maker within ERM CVS.

## 5 Validation findings – Approval & Participation, Authorisation, Contribution to Sustainable Development, and Modalities of Communication

### 5.1 Approval & Participation

As per VVS section 7.6, ERM CVS assessed whether the DNA of each Party indicated as being involved in the PoA has provided an appropriate letter of approval (LoA).

ERM CVS has confirmed that the LoA has been issued and provides confirmation of:				
Party	Ratified Kyoto Protocol?	Voluntary Participation	Contribution to Sustainable Development	Exact project title
Kenya (Host Party)	Yes	Yes	Yes	Yes

ERM CVS received the LoA from the CME. In order to confirm LoA authenticity, ERM CVS contacted the DNA of Kenya and received a confirmation that the LoA is authentic and was approved by the DNA /33/.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.1.1	Are LoAs in place for every host country, covering all PPs, that confirm <ul style="list-style-type: none"> <li>▪ Ratification of the Kyoto Protocol</li> <li>▪ Voluntary Participation</li> <li>▪ Reference to the precise title in the PoA-DD</li> <li>▪ Contribution to sustainable development (host party only)</li> </ul>	<p>At the time of the draft validation report (DVR, the LOA from host country was not provided – <b>CAR 1</b> was raised.</p> <p>Subsequently the host party LoA was received from the CME and reviewed by ERM CVS. The LoA confirms that Kenya is a Party to the Kyoto protocol, confirms voluntary participation in the PoA, references the precise PoA title as written in the PoA-DD, and confirms the contribution of the PoA to the sustainable development of the host party.</p> <p>Although GSP PoA-DD also included Annex-I Party, the project participants other than the CME decided not to be considered as project participants during the validation process. The DOE's contractual relationship is with the CME, and the CME remains a PP.</p> <p>As LOA was provided and validated, CAR 1 was closed.</p>	CAR-1	OK
5.1.2	Is the information in the LoAs consistent with the other project documentation, including PP names, etc	<p>At the time of the DVR, the LOA from host country and Annex I countries was not provided – please refer to CAR 1.</p> <p>Subsequently the LoA was provided and CAR 1 was closed – please refer to details above. The LoA was checked against the PoA-DD /01/ and Modalities of Communication /04/. ERM CVS can confirm that the PoA name and CME/PP name are consistent between the IOA and these documents.</p>	CAR-1	OK

ERM CVS also reviewed whether the LoAs contain any additional specifications:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.1.3	Does any LoA contain additional specification or conditions of the PoA? If so, are these conditions fully complied with?	The LOA from host country does not include any additional specifications	CAR-1	OK
5.1.4	<p>If any LoA references a specific version of the Validation Report and this version cannot be submitted, then has either of the following been submitted?</p> <ul style="list-style-type: none"> <li>a statement indicating final LoA has not been received or</li> <li>an updated Validation Report</li> </ul>	The LOA from host country does not reference any version of the validation report.	CAR-1	OK

## Conclusion

ERM CVS confirmed that LoAs have been received from all parties involved in the PoA.

ERM CVS's validation of the approval status of the PoA confirmed that:

- Each Party is a Party to the Kyoto Protocol
- Participation is voluntary
- In the case of the Host Party, the PoA contributes to the sustainable development of the country
- The title of the PoA is identical in the LoAs and the PoA-DD.

ERM CVS therefore confirms that the LoAs are in accordance with paragraphs 38-44 of the VVS.

## 5.2 Authorisation

As per VVS sections 7.7, ERM CVS evaluated whether all PPs are listed in a consistent manner in section A.3 of the PoA-DD and have been appropriately authorised by a Party to the Kyoto Protocol. ERM CVS also checked the consistency of information between the PoA-DD, Letters of Approval (LoAs) and the Modalities of Communication (MoC).

PPs (list all)	Is the PP listed in Section A.3 of PoA-DD?	Are contact details given in Appendix 1 of PoA-DD?	Does the LoA name the authorised PP?	Is information in the MoC consistent with PoA-DD and LoA?
Total Access To Solar (the CME)	Yes	Yes	Yes	Yes

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.2.1	Is the correct information provided on PPs, and	At the time of the DVR, LOAs and MOC were pending – please refer to CAR 1 and CAR 2. Subsequently, Kenya LOA and the MOC were provided and	CAR-1	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
	consistently applied in section A and Appendix 1 of the PoA-DD and other project documentation (Letters of Approval and Modalities of Communication)?	validated, and CAR 1 and CAR 2 were closed.  ERM CVS can confirm that information on CME, who is the only PP, as provided in the PoA-DD, is consistent with the business licence /05/, statutes of the company /06/, the LoA/02/, and the MOC /04/.	CAR-2	
	Can it be confirmed that there are no entities other than those approved as PPs included in section A or Appendix 1 of the PoA-DD.	At the time of the DVR, LOAs and MOC were pending – please refer to CAR 1 and CAR 2. Subsequently, Kenya LOA and the MOC were provided and validated, and CAR 1 and CAR 2 were closed.  There are no entities are other than those approved as PPs included in section A or Appendix 1 of the PoA-DD	CAR-1  CAR-2	OK
	Does the host party wish to be considered a Project Participant? If so, is this correctly presented in the PDD?	At the time of the DVR, LOAs was pending – please refer to CAR 1. The CAR was closed once the LOA was provided and validated.  The Party does not wish to be a Project Participant. This is consistent between the PoA-DD and the LoA	CAR-1	OK

## Conclusion

All PPs to the project activity have been authorised by a party to the Kyoto Protocol, and ERM CVS has reviewed the letters of approval to confirm this. The PPs and are listed in a consistent manner in the PDD and all related project documentation, including the LoAs and Modalities of Communication. No entities other than those approved as PPs are included in section A.3 or Appendix 1 of the PDD.

## 5.3 Contribution to Sustainable Development

As per VVS section 7.8, ERM CVS evaluated whether the letter of approval by the DNA of the host Party confirms the contribution of the proposed CDM project activity to the sustainable development of the host Party.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
5.3.1	Does the LOA from the Host Party confirm that the project activity contributes to the sustainable development of that country?	At the time of the DVR, the LOA from the host party was yet to be provided – please refer to CAR 1. The CAR was closed once the LOA was provided and validated. ERM CVS can confirm that the LoA includes confirmation that PoA will contribute to Kenya's sustainable development.	CAR-1	OK

## 5.4 Modalities of Communication

As per VVS section 7.9, ERM CVS validated that the MoC statement has been correctly completed and duly authorised. ERM CVS also validated the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories (VVS para 53).

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.4.1	Are all corporate and personal details in the MoC, including	At the time of the DVR, MoC was not provided – CAR 2 was raised.  Subsequently the MoC was provided by the CME. ERM CVS confirmed the	CAR-2	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
	specimen signatures, correct?	company information against the business licence and statutes /05/ /06/, and confirmed company and personal details against a signed letter from the CME Director confirming that corporate and personal details of the signatories, including specimen signatures, are correct /18/. The primary signatory details including signature in the MOC are consistent with the signatory on the contract between the DOE and the CME /19/.		
	Has the MoC statement been correctly completed, including: <ul style="list-style-type: none"> <li>Using the latest form?</li> <li>All information, including annex 1, has been correctly provided?</li> <li>Listing all PPs?</li> </ul>	At the time of the DVR, the MOC was not provided – refer to CAR 2. Subsequently the MOC was provided by the CME /04/. ERM CVS checked the filled in MOC statement against the form available on the UNFCCC website and can confirm that the MOC was completed correctly, using the latest form (version 2.1). All information has been provided correctly.	CAR-2	OK
	Has the MoC been signed by the authorised signatories of the PP?  Are the signatories consistent with the names given in Annex 1 of the MoC?	At the time of the DVR, the MOC was not provided and CAR 2 was raised. The CAR was closed once the MOC was provided and validated. Based on review of the signed confirmation letter from the CME director /18/, ERM CVS can confirm that the MoC was signed by the authorised signatories of the PP. The signatory is also consistent with the signatory on the contract between the DOE and the CME /19/.	CAR-2	OK

## Conclusion

ERM CVS has performed due diligence on the MoC statement in accordance with the requirements established in the VVS. ERM CVS can confirm that the MoC statement complies with all relevant forms and requirements.



## 6 Validation findings – GSP, PDD and Project Description

### 6.1 Main changes between the PoA-DD version published for GSP and the final version submitted for registration:

- Changes related to the CARs and CLs, as identified in Appendix B
- Applied methodology (AMS-III.AR. Substituting fossil fuel based lighting with LED/CFL lighting systems) version changed from 02 to 04
- As part of the change of the methodology version, the sampling plan was removed from the PoA-DD
- Project participants Total Gas and Power Limited and Total Kenya Limited were removed (withdrew) as Project Participants

### 6.2 Global stakeholder consultation

At the start of the validation, in accordance with the latest version of the Project Cycle Procedure, the unvalidated PoA-DD and one real case CPA-DD supplied by the client were uploaded on the UNFCCC website for global stakeholder review for a period of 30 days, from 23 May 2012- 21 June 2012 .

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/GJR46OV14DM5X59NJ4ROU1ZVCWXWW9/view.html>

No comments were received.

### 6.3 Programme of Activities Design Document (PoA-DD)

As per VVS sections 7.10, ERM CVS reviewed the PoA-DD to determine whether it has been prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC website.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
6.3.1	Is the PoA-DD prepared in accordance with the latest forms and guidance by the CDM EB?  <a href="http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html">http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html</a>	ERM CVS checked the GSP PoA-DD against the latest Programme of Activities Design Document form, version 02.0 and latest Guidelines for completing the programme design document form for small-scale CDM programmes of activities, version 02.0 available on the CDM website /7, 8/. <b>CL 1</b> was raised, as section D.2 only stated the starting date without describing how it was determined, which is not in line with the guidelines.  ERM CVS reviewed revised PoA-DD and can confirm that the explanation was included on how the starting date was determined. The starting date of the PoA in the revised PoA-DD is given as 23 May 2012. This is the day when PoA-DD was published for GSP (please refer to the link above), and determined date is in accordance with the CDM Project Standard /06/ and CDM Glossary of Terms.  Therefore <b>CL 1</b> was closed.  Following this correction, ERM CVS can confirm that the revised PoA-DD is completed in accordance with the latest form (version 02) and guidance /08/.	CL-1	OK

### Conclusion

ERM CVS has confirmed that the PoA-DD has been prepared in accordance with the latest form and with relevant guidance.

## 6.4 PoA Description

As per VVS sections 7.11 and 8.4.3, ERM CVS reviewed the description of the PoA in the PoA-DD in order to confirm the framework developed for the implementation of the PoA, and for defining a CPA under the PoA, and to evaluate whether it provides a clear and accurate description of the proposed CDM PoA and generic CPA. Validation of the PoA description was based on review of documentation, a physical inspection of the site of the first real case CPA, and interviews.

### Policy/measure or stated goal of the PoA:

The POA-DD describes the policy/measure of the POA. The POA –DD states that the PoA has the objective of scaling up the deployment of solar lanterns to targeted end-users across Kenya. This programme will provide technology and financing solutions to end-users to encourage the uptake of solar lanterns to replace current fossil fuel based lamps.

Equally, the PoA will contribute to TATS Mission of:

- Providing access to lighting to people without access to reliable and efficient sources of energy
- Contributing to the economic development of local communities

### 6.4.1 Description of the PoA:

The POA will consist of a series of projects (SSC-CPAs) implemented collaboratively between Total Access to Solar (TATS) and TOTAL's affiliates, in this case TOTAL Kenya Limited (therein also referred to as Total Kenya). TATS will act as the Coordinating/Managing Entity (CME) for the PoA.

The PoA is implemented in Kenya and will commence distribution of solar lanterns across all municipalities, regions and provinces within the Republic of Kenya.

The PoA will comprise activities that replace portable fossil fuel based lamps (e.g. wick-based kerosene lanterns) with battery-powered LED or CFL based lighting systems in residential and/or non-residential applications (e.g. ambient lights, task lights, portable lights). Project Lamps will be charged using a renewable energy system included as part of the Project Lamp (i.e. a photovoltaic system). The activities under the PoA will involve sourcing, distributing and sales of lamps as well as marketing activities. A variety of sales channels will be used, adapted as suitable for each CPA. The PoA will also involve marketing initiatives on solar lamps.

The information provided was determined based on the site visit interviews, witnessing pilot activities during the site visit, and the description in the POA-DD

The findings of our validation of the PoA description are set out below.

### 6.4.2 PoA Boundary, Location and Status

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
6.4.2 (a)	<b>Boundary:</b> Is the definition of the boundary for the PoA correctly stated in terms of a geographical area (e.g., municipality, region within a country, country or several countries) within which all CPAs included in the PoA will be implemented, taking into consideration all applicable national and/or sectoral policies and regulations? How was this validated?	<p>The PoA boundary was not clearly defined in the GSP PoA-DD, It referred to having a worldwide reach across countries in Africa, Asia and Middle East, but specified that currently the PoA covers Kenya. The description was ambiguous, not consistent throughout the PoA-DD, and not in accordance with the suggested Parties and expected LoAs. Please refer to <b>CL 5</b>.</p> <p>The CL 5 was closed after reviewing revised PoA-DD, where the boundary was clearly defined to be the national boundaries of Kenya. The revised PoA-DD is clear and consistent on its boundary.</p> <p>The national boundaries for such POA are reasonable, as there are no regulations mandating residential or small businesses' lighting applications in Kenya, and conditions are similar throughout the country. Taxes and duties for distribution and sales of lamps are regulated on a national basis. This was confirmed by reviewing Lighting Africa report and its quantitative study on Kenya /09/ /10/, as well as based on ERM CVS's sector knowledge.</p>	CL-5	OK
6.4.2 (b)	<b>Policy/measure or stated goal of the PoA:</b> Does the PoA-DD describe	Yes section A.2 in the PoA-DD describes the goal and objective of the PoA.	CL-2	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	the policy/measure or stated goal that the PoA seeks to promote? How was this validated?	<p>The objective of the PoA in the GSP version of the PoA-DD stated that the PoA would first target low-income populations. However, the description of the PoA and generic CPA was not sufficiently clear on how it would be ensured that the PoA targets low income populations. <b>CL 2</b> was raised.</p> <p>CL 2 was closed after revised PoA-DD was reviewed, which includes a modified wording of the POA goals, and lists a selection of possible distribution (sales) channels and their respective target groups. These were validated based on interviews with a representative of Total Kenya and a representative of TATS, and review of the Affiliates Toolkit. Further details on closing CL 2 are described in Appendix B.</p> <p>Following closure of CL 2, the goal of the POA is clear and in line with the description of generic CPAs, operational and management system of the PoA, and eligibility criteria.</p>		
6.4.2 (c)	<b>Confirmation of voluntary action:</b> Does the POA-DD provide confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity? How was this validated?	Yes the PoA-DD provides confirmation that the proposed POA is a voluntary action by the CME. This was validated based on review of the website resources of Lighting Africa, a joint IFC and World Bank program, which is helping develop commercial off-grid lighting markets in Sub-Saharan Africa as part of the World Bank Group's wider efforts to improve access to energy ( <a href="http://www.lightingafrica.org/">http://www.lightingafrica.org/</a> ), and the initiative's quantitative assessment report for Kenya /10/.	OK	OK

## Conclusion

The process undertaken to validate the accuracy and completeness of the PoA description is set out in detail above. ERM CVS has confirmed that the description in the PoA-DD provides a clear, accurate and complete understanding of the nature of the proposed CDM PoA.

### 6.4.3 Description of a generic CPA

A generic CPA consists of deployment of solar lanterns to targeted households across Kenya. Solar lamps will be sold via TOTAL affiliates and distribution partner's network, using several distribution (sales) mechanisms. CPAs will be defined by dates of sale, ranges of lamp serial numbers, and geographical areas (although geographical areas may and will overlap between CPAs). Each CPA will have specified lamp models. The description of a generic CPA in the PoA-DD has been validated as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
6.4..3 (a)	<p><b>(i) Description: Generic CPA design</b></p> <p>Does the description of the generic CPA in the PoA-DD section A provide a clear, accurate and sufficiently detailed description of the technologies and/or measures to be employed and/or implemented by the CPAs in the PoA?</p> <p>If relevant, has the description considered applicable provisions for</p>	<p>The description is clear that a generic CPA will consist of deployment of solar Lanterns to targeted end-users across Kenya. The lanterns will replace portable fossil fuel based lamps, and a range of lighting technologies will be covered by the PoA but all charged with renewable energy systems included as part of project lamps.</p> <p>The description of a generic CPA lists minimum performance requirements for project lamps in any CPA to be included in the PoA. The minimum requirements have been checked against the applied methodology /07/ and are in accordance with it. However, in the GSP version of the PoA-DD:</p> <ul style="list-style-type: none"> <li>The description did not accurately address the distribution network that will be implemented to sell the solar lanterns. Please refer to <b>CL 2</b>.</li> <li>The description was lacking consistency whether the PoA will use only off-grid technologies as stated in section A.6, or will cover other options from the methodology, including charging the lamps from the grid, as</li> </ul>	<p>CL-2</p> <p>CL-3</p> <p>CL-4</p> <p>CL-5</p>	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	application of selected baseline and monitoring methodology?	<p>stated in section A.2. The same inconsistency was noted in other sections of the GSP PoA-DD. <b>CL 3</b> was raised.</p> <ul style="list-style-type: none"> <li>The description implied that both Options provided by the methodology on the lamp effective useful life and monitoring/crediting will be used by the PoA. However, during the site visit the PoA developer clarified that only Option 1 will be used. Further clarification and PoA-DD modification was needed. <b>CL 4</b> was raised.</li> <li>The PoA description did not provide a summary how the PoA reduced GHG emissions and what are the main emission sources involved, and no information was provided whether technology transfer will be involved. <b>CL 5</b> was raised.</li> </ul> <p>CL 2 was closed after revised PoA-DD was reviewed, which described a list of example distribution (sales) channels that can be used by CPAs. These were validated based on review of Affiliate Toolkit /24/ and interviews with representatives of TOTAL Kenya and TATS. Please refer to Appendix B for more details</p> <p>CL 3 was closed after revised PoA-DD was reviewed and checked against the applied methodology, and ERM CVS was able to confirm that the revised PoA-DD is consistent that the PoA will only distribute lamps whose batteries are charged by a renewable energy system included as part of the project lamp. I.e. the PoA will only use option (a) from paragraph 2 of the applied methodology. Batteries charged by mechanical charging will not be used.</p> <p>CL 4 was closed once revised PoA-DD was reviewed against the methodology and ERM CVS could confirm that the PoA-DD is now consistent that the PoA will only use option 1 for the lamp effective useful life as specified in the applied methodology. I.e., Project lamps are assumed to operate for two years after distribution to end users. Therefore, under this option, emission reductions may only be claimed for two years. Emission reduction calculations are validated in section 8.5 of the validation report.</p> <p>CL 5 was closed after the revised PoA-DD was checked by ERM CVS and was confirmed to include a clear description of the boundary (validated in question 6.4.2(a) above), summary of emission sources and GHGs involved (full boundary validated in question 8.3.1 below), and description of the technology transfer. The PoA does not include technology transfer from Annex I countries, as confirmed based on interviews with the representative of TATS.</p> <p>Following the closure of these issues, validation team can confirm that the description of the generic CPA in the revised PoA-DD section A provides a clear, accurate and sufficiently detailed description of the technologies and measures to be implemented by the CPAs in the PoA. The technologies are in line with the specifications provided in the applied methodology /07/.</p>		
6.4.3(b)	Is the description in the generic CPA part of the PoA-DD consistent with the validated description in the section A of the PoA DD as discussed above?	<p>At the time of the DVR, this was pending on closure of CLs 3 and 4.</p> <p>Following closure of CL 3 and CL 4 – please refer to the question above and Appendix B – ERM CVS can confirm that section A of part II of the PoA-DD is consistent with the validated description of the POA.</p>	<p>CL-3</p> <p>CL-4</p>	OK

## Conclusion

ERM CVS has confirmed that the description in the PoA-DD and generic CPA-DD provides a clear, accurate and complete understanding of the precise nature of the PoA and generic CPA, including baseline technical aspects of implementation. The description sufficiently covers all relevant elements, is accurate, and clearly states the differences resulting from the PoA compared to the pre-project situation.

## 7 Validation Findings - Eligibility Criteria for Inclusion of a CPA in a PoA

### 7.1 Description of Eligibility Criteria

Following VVS section 8.4.9, ERM CVS evaluated the eligibility criteria for inclusion of a CPA in the PoA contained in section B.2 of the PoA-DD in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” /03/, as well as how the CME demonstrated their usability to assess the inclusion of CPAs in the section B.5 of part II of the PoA-DD. The DOE evaluated whether the criteria are verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA. The DOE also checked whether the CME has the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.1.1	Do the eligibility criteria include the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA (for example, an emission factor for electricity generation is dependent on the boundaries of regional or state or sub-regional grids)? Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria in GSP version of the PoA-DD referred to selling of lamps in the “countries mentioned in the PoA-DD”. However, the geographical boundary was not clearly defined - please refer to <b>CL 5</b>.</p> <p>The revised PoA-DD is clear and consistent on the PoA boundaries (see question 6.4.2(a) for further details), and CL 5 was therefore closed.</p> <p>The revised criterion has a clearer wording that selling of project lamps is to take place in country specified in section A.5 of the PoA-DD, which currently clearly states the boundaries of Kenya as the POA boundary.</p> <p>Compliance with the criterion will be demonstrated in sections A.3 and A.7 of the CPA-DD, which provide description of the CPA and geographical location, as well as by providing service agreement between TATS and Total Affiliate (TOTAL subsidiary in the country, which will serve as implementer of CPAs in Kenya) as evidence.</p> <p>The criterion is verifiable and sufficiently objective</p>	CL-5	OK
7.1.2	Do the criteria include conditions that avoid double counting of emission reductions, like unique identifications of product and end-user locations (e.g. programme logo)? Are the relevant criteria verifiable and sufficiently objective?	<p>Yes, the criteria include conditions that avoid double accounting of emission reductions. However, it was not sufficiently clear in the GSP PoA-DD how it would be assessed whether a CPA meets the criterion. E.g. the criterion referred to unambiguous identification of solar lanterns in the database management system but during the site visit it was clarified that the POA will not use a database management system. Further, it was not clear if the CME will rely on marking of lamps and having contracts, without checking the UNFCCC databases. <b>CL 6</b> was raised.</p> <p>In the revised PoA-DD, the criterion on avoiding double counting (criterion number 2) and information on how compliance with the criterion will be ensured, have been revised. The criterion now refers to the section on the monitoring plan in a CPA-DD as means of demonstrating compliance with this criterion, where a description is provided how filled-in warranty forms will be collected that include terms on buyers waiving their carbon rights. Another part of the criterion is ensuring contracts between the CME and CPA implementer as well as between the CME and lantern suppliers include clauses on assigning carbon rights. Identification of solar lamps will be done by means of tracking serial numbers of lamps.</p> <p>Compliance with the criterion will be demonstrated: a) in section D.7.2 of the CPA-DD, which provides description how lamp serial numbers will be recorded and tracked in the PoA's record keeping system, and how each lamp purchase will be documented in a warranty form including signing that users waive their carbon rights; and b) by providing terms on rights to emission reductions in contracts between the CME and lamp suppliers and between CME and CPA operator, as well as warranty form template, which shows that users will sign on transferring their rights to carbon credits.</p>	CL6	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>Warranty forms were checked by ERM CVS /25/: such forms will be filled in for each lamp or kit. A serial number of a lamp bought will be noted as well as buyer's contact details, and the forms will have to be signed by buyers. The warranty form includes clauses about the buyers surrendering their rights to carbon credits. The terms on carbon rights in the contract between the CME and Total Kenya was reviewed to confirm that they clearly assign the rights to credits to the CME /20/. For contracts with lamp suppliers, the CME showed clauses on carbon rights during the site visit but full contracts were not supplied due to confidentiality. This can be confirmed in CPA inclusion stage based on carbon rights terms in the contracts with the suppliers of relevant models included in a specific CPA.</p> <p>The criteria for avoiding double counting are clear, verifiable and sufficiently objective</p>		
7.1.3	Do the criteria include the specifications of technology/measure including the level and type of service, and performance specifications, including compliance with testing/certifications? Are the relevant criteria verifiable and sufficiently objective?	<p>Yes the criteria include the technology specification (Lantern charged only by a renewable energy system included as part of the project lamp, i.e. photovoltaic system) and minimum performance specifications of the technology, including compliance with certifications, as well as minimum warranty period. The specifications are in line with the applied methodology /07/.</p> <p>Compliance with the criterion will be demonstrated in section A.5 of a CPA-DD, which will list lamp specifications, and evidenced by providing relevant manufacturer's specifications and third party certificates where needed according to the methodology. Warranty period can be evidenced by supplier's warranty terms</p> <p>The criterion is sufficiently clear, objective and verifiable.</p>	OK	OK
7.1.4	Do the criteria include conditions to check the start date of the CPA through documentary evidence? Are the relevant criteria verifiable and sufficiently objective?	<p>The criteria in the GSP PoA-DD included the condition to check the start date of the CPA, through documentary evidence of lamp sales start. In the revised PoA-DD, this was changed to the date the supplier order form is provided, i.e. a day when TATS places an order for lamps to suppliers. This is in line with the CDM Glossary of Terms, as such date would be the earliest date of real action of a CPA. The documentary evidence will be a signed and dated supplier order form.</p> <p>The criterion is sufficiently objective and verifiable.</p>	OK	OK
7.1.5	Do the eligibility criteria include conditions that ensure compliance with applicability and other requirements of single or multiple methodology/ies applied by CPAs? Are the relevant criteria verifiable and sufficiently objective?	<p>Eligibility criteria included conditions that ensure compliance with methodology's applicability conditions related to technical specifications, and technical specifications were included in the wording of the criteria in the GSP PoA-DD.</p> <p>Please refer to <b>CL 3</b> and <b>CL 4</b> with regard to lamp charging mechanisms and options related to lamp lifetime: the criteria in the GSP PoA-DD were not consistent with the description on those aspects.</p> <p>Also, it was not clear how the eligibility criteria ensure compliance with:</p> <ul style="list-style-type: none"> <li>Paragraph 6 of the methodology, on explanation of distribution mechanisms and ensuring that replaced baseline lamps are those that directly consume fossil fuel, and ensuring compliance with prevailing regulations pertaining to the use and disposal of batteries;</li> <li>Paragraph 7 of the methodology, that PDD shall include minimum requirements on lamp wattage, type of the batteries etc.</li> <li>Paragraph 8 of the methodology on restricting the number of project lamps to no more than 5 per household or business location</li> </ul> <p>This was not in line with the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for</p>	<p>CL-3</p> <p>CL-4</p> <p>CL-7</p>	OK



	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>programme of activities /03/. <b>CL 7</b> was raised.</p> <p>CL 3 and CL 4 were closed after revised PoA-DD was made clear that the PoA will only distribute lamps whose batteries are charged by a renewable energy system included as part of a project lamp, and that the POA will only use option 1 from the methodology, i.e. lamps are assumed to operate for 2 years after distribution for end users – please refer to Appendix B.</p> <p>In the revised PoA-DD, eligibility criteria related to methodology application have been revised into one criterion which refers to checking methodology applicability conditions in section D.2 of a CPA-DD. Methodology applicability conditions are validated in section 8.2 of the validation report, where evidence to be provided for the criteria is also described. CL 7 was therefore closed.</p> <p>The revised criterion is verifiable and sufficiently objective.</p>		
7.1.6	Do the eligibility criteria include conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality (please refer to the latest approved version of the <i>Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of Activities</i> ); Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria in the GSP PoA-DD included conditions for checking whether CPAs meet the requirements pertaining to the demonstration of additionality, and conditions were in line with the Guidelines for demonstrating additionality of microscale project activities. However, it was not clear in the PoA-DD how, on what basis, it will be assessed whether a CPA meets a condition that the end users of the measure are households/communities/SMEs. Please refer to <b>CL 6</b>, item b).</p> <p>In the revised PoA-DD, the eligibility criterion on additionality (criterion number 6) was revised to refer to section B.1 of the PoA-DD for the description of argumentation and criteria. In this section, the PoA-DD correctly refers to each CPA generating emission reductions of less than 60 ktCO<sub>2</sub>e per year, distribution (sales) channels targeting households and SMEs, and each lamp having annual emissions of less than 3,000 tCO<sub>2</sub>e. These criteria are in line with the latest version of the Guidelines on the demonstration of additionality of small-scale project activities /26/, and include all relevant requirements from these guidelines. According to the applied methodology, each lamp has a default emissions factor of 0.092 tCO<sub>2</sub>e per year /07/. The proposed PoA-DD uses these default values, and it is therefore clear that each lamp will result in emission reductions lower than the threshold of 3,000 tCO<sub>2</sub>e. For demonstrating compliance, service agreement between the CME and CPA implementer will be provided as evidence of activities to be undertaken. Item b) of the CL 6 was therefore closed – please refer to Appendix B for other parts of this CL. Following this revision, the criterion is verifiable and sufficiently objective.</p>	CL-6	OK
7.1.7	Do the eligibility criteria include, if applicable, any PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental impact analysis (See also paragraph 6 (m) of Procedures for registration of a programme of activities as a single CDM project activity and issuance of CERs for a PoA). Are the relevant criteria verifiable and sufficiently objective?	<p>The criteria in the GSP PoA-DD included checking whether a CPA satisfied all the requirements stipulated by the CME with regard to local stakeholder consultations and environmental impact analysis, but it was not clear what those requirements were. Please refer to <b>CL 6</b>, item c).</p> <p>This part of CL 6 was closed after revised PoA-DD was reviewed, where eligibility criteria do not include criteria related to stakeholder consultation and environmental impact analysis. Section on stakeholder consultation clearly describes that stakeholder consultation was undertaken at the PoA level, and section on environmental impacts clearly describes analysis at the POA level (both at country level). As stakeholder consultation was undertaken and environmental impacts are analysed at PoA level for the PoA boundary comprising all Kenya (these are validated in section 12.2 and 12.3 of the validation report, respectively), it is appropriate for the POA not to include criteria on stakeholder consultation and environmental impact analysis.</p>	CL-6	OK
7.1.8	Do the criteria include, where applicable, the target group (e.g. domestic/ commercial/ industrial, rural/ urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)? (This is to	<p>The criteria in the GSP PoA-DD included checking whether a CPA satisfied all the requirements stipulated by the CME with regard to target group and the distribution mechanisms but it was not clear what those requirements were. It was not sufficiently objective and verifiable. Please refer to <b>CL 6</b> item d).</p> <p>In the revised PoA-DD, criterion 1 refers to target groups and distribution mechanisms as described in section A.2 of the PoA-DD. This section clearly lists</p>	CL-6	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	re-test the validity of assumptions made at the PoA level. For example, in a lighting efficiency application, lighting usage hours of 3.5 hours per day would be valid if the target group is residences/households. Usage hours would be different in commercial applications and vice versa), Are the relevant criteria verifiable and sufficiently objective?	<p>a range of possible distribution (sales) mechanisms and their respective target groups. These were validated based on review of the Affiliate Toolkit /24/, which describes how sales should be conducted using different distribution mechanisms, and interviews with the representatives of TATS and Total Kenya.</p> <p>Compliance with the criterion will be demonstrated in section A.3 of a CPA-DD, which describes the particular CPA and distribution mechanisms used in it and their respective target groups. Contract between the CME and CPA implementer will be provided as evidence. Item d) of CL 6 was therefore closed.</p> <p>The revised criterion is verifiable and sufficiently objective</p>		
7.1.9	Do the criteria include, where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/ standard from the Board pertaining to sampling and surveys? Are the relevant criteria verifiable and sufficiently objective?	<p>Based on interviews with the PoA developer, at the time of the draft validation report ERM CVS understood that the monitoring plan and sampling to be used in the PoA would be different than presented in the GSP PoA-DD, therefore this criterion was to be validated once new monitoring plan is provided and validated. Please refer to the section 11 of the validation report and <b>CAR 5</b>.</p> <p>Subsequently the monitoring plan was revised and validated – please refer to section 11 of the report. At the beginning, the monitoring plan included a sampling plan, and therefore a criterion was included related to the sampling plan. However, during validation the methodology was revised and in accordance with version 04 of the methodology, monitoring only consists of recording lamp distribution (in this case, sales). This will be done for all lamps and no sampling will be used. Therefore the revised PoA-DD does not include a sampling plan and no criteria are needed for conditions on sampling requirements.</p>	CAR-5	OK
7.1.10	Do the criteria include, where applicable, conditions that ensure that the CPA in aggregate meets the small-scale or micro-scale threshold criteria (please refer to the latest approved version of the Guidelines for demonstrating additionality of microscale project activities and the latest approved version of the General Guidelines to SSC CDM methodologies) and remain within those thresholds throughout the crediting period of the CPA? Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria include conditions to check if a CPA meets small-scale project threshold in line with the Guidelines on the demonstration of additionality of small-scale project activities /26/ and that no more than 652,000 lanterns are included (accounted for crediting) in a CPA in any year of the crediting period. As a default emissions factor per lamp is 0.092 tCO<sub>2</sub>e per year /07/, this ensures that in any year emission reductions will be lower than 60,000 tCO<sub>2</sub>e.</p> <p>Compliance at CPA inclusion stage will be demonstrated in section A.10 of the CPA-DD, which provides estimated emission reductions, and based on emission reduction calculations spreadsheet. During the PoA implementation this can be checked in every monitoring period based on actual number of lamps sold. The criterion is sufficiently objective and verifiable. The criterion got changed from using micro-scale threshold in the GSP version to small-scale threshold in the final version of the PoA-DD.</p>	OK	OK
7.1.11	Do the criteria include, where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories (please refer to the latest approved version of the Guidelines on assessment of debundling for SSC project activities)? Are the relevant criteria verifiable and sufficiently objective?	<p>Yes the criteria include the conditions to check if a CPA meets requirements for de-bundling check – in effect, whether a CPA can be exempt from the de-bundling check. The criterion is in line with Guidelines on assessment of de-bundling for SSC project activities /27/, which specify that if each of the independent subsystems/measures included in one or more CDM project activities is no greater than 1% of the small scale thresholds defined by the applied methodology and the subsystems/measures are implemented at or in multiple locations then these CDM project activities are exempted from performing a de-bundling check, i.e., considered as being not a de-bundled component of a large scale activity. According to the applied methodology, each lamp has a default emissions factor of 0.092 tCO<sub>2</sub>e per year /07/. The proposed PoA-DD uses these default values, and it is therefore clear that each lamp will result in emission reductions lower than the threshold of 600 tCO<sub>2</sub>e. Compliance at the CPA level will be demonstrated in section A.12 of a CPA-DD, which is a</p>	OK	OK



	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		section on debundling. The criterion is verifiable and objective.		
7.1.12	Do the criteria include conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance? Are the relevant criteria verifiable and sufficiently objective?	Yes, The criteria include the condition to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance. This will be demonstrated in section A.11 of a CPA-DD and by providing CME Letter of Authorisation, which would confirm information whether public funding is used. In case public funding is used, a letter from Annex I party will confirm that this funding will not results in a diversion of official development assistance  It is verifiable and objective	OK	OK
7.1.13	Does the CME have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA?	Yes , CME is the central purchasing entity for PoA, it coordinates marketing, distribution and sales throughout the PoA, as validated based on review of the Affiliate Toolkit and especially part 1 on TATS /24/. ERM CVS also checked CVs of the CME's key personnel /28/, and can confirm that the CME has competencies to check CPA features and ensure that CPA meets all requirements and eligibility criteria.	OK	OK
7.1.14	Is the set of eligibility criteria sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?	At the time of the DVR, not all eligibility criteria were sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA – please refer to CL 6 and CL 7.  CL 6 and CL 7 were closed once eligibility criteria were revised – please refer to Appendix B and questions above in this section for details.  The final set of eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA	CL-6  CL-7	OK

## Conclusion:

ERM CVS can confirm that the CME has developed eligibility criteria for inclusion of a CPA under the PoA and has included these criteria in the PoA design document and demonstrated their usability to assess the inclusion of CPAs. The POA-DD provides a detailed description of the eligibility criteria for inclusion of a project activity as a CPA under the PoA, which includes criteria for demonstration of additionality of the CPA, and the type and/or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility. The eligibility criteria are verifiable, and are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA. ERM CVS has assessed the specified eligibility criteria and can conclude that the criteria are sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA.

## 8 Validation findings – Baseline and Monitoring Methodology

ERM CVS has evaluated the baseline and monitoring methodology selected by the PPs to confirm its applicability and whether or not it has been appropriately applied in the PoA-DD.

### 8.1 Validity of selected methodology and methodological tools

As per VVS section 7.12, ERM CVS validated that an approved and currently valid baseline and monitoring methodology (and associated methodological tools) have been applied for this proposed CDM PoA.

Baseline methodology applied	AMS III AR .Substituting fossil fuel based lighting with LED/CFL lighting systems Version 04
Methodological tools applied as required by the methodology	n/a

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.1.1	Is the number, title and version of the approved methodology clearly and correctly stated in the PoA-DD?  Is the methodology within their period of validity?	ERM CVS has determined that the methodology is correctly quoted and applied by comparing with the actual text of the applicable version of the methodology available on the UNFCCC CDM website. In the GSP stage, version 02 of the methodology was used. During the validation, version 03 and then version 04 became available and the CME revised the PoA-DD to use newest version (04) of the methodology.  The methodology is within its period of validity.	OK	OK
	Are all the required tools applied and fully referenced in the PoA-DD and generic CPA-DD?  Are the version numbers applicable at the time of validation?	Not applicable: the methodology does not require the use of methodological tools	n/a	n/a
	If applicable, has any specific guidance provided by the CDM EB relating to the applied methodology been considered?	No specific guidance relating to the applied methodology has been provided by the CDM EB.	OK	OK

### Conclusion

The applied methodology has been correctly described and is approved by the CDM Executive Board. The version is currently valid.

### 8.2 Applicability of the selected methodology to the generic CPA

As per VVS section 7.12, ERM CVS evaluated whether the selected baseline and monitoring methodology applied in the proposed PoA (generic CPA part) is applicable to the generic CPA described in the PoA-DD. This evaluation was based on a review of the PoA-DD and associated documentation, interviews with the PoA developer / CME and with the implementer of the first CPA, and a visit to a few distribution points to be used by the first real case CPA. ERM CVS has validated whether the applicability conditions of the methodology are met and whether the PoA is not expected to result in emissions other than those allowed by the methodology.

ERM CVS has assured the compliance of the generic CPA with each of the applicability conditions of the selected methodology, set out in section B.2 of part II of the PoA-DD (Application of methodology(ies)):

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
8.2.1	2. This category comprises activities that replace portable fossil fuel based lamps (e.g. wick-based kerosene lanterns) with battery-charged LED or CFL based lighting systems in residential and/or non-residential applications (e.g. ambient lights, task lights, portable lights).	yes	Yes	The PoA meets the applicability condition as the project lamps replace the portable fossil fuel based lamps: kerosene-based lamps are predominant means of lighting in Kenya. This was validated based on interviews with the project developer and review of the initiative's "Lighting Africa" quantitative assessment on Kenya /10/ - please refer to question 8.4.1 of this report for more details. The PoA's solar lanterns are charged using renewable energy – this will be ensured by eligibility criterion number 3. Compliance with the condition will be evidenced by service agreement between the CME and CPA implementer.	OK	OK
	3. This methodology is applicable only to project lamps whose batteries are charged using one of the following options:  (a) Charged by a renewable energy system included as part of the Project Lamp (e.g. a photovoltaic system or mechanical system such as a hand crank charger);  (b) Charged by a standalone distributed generation system (e.g. a diesel generator set) or a mini-grid, i.e. that is not connected to a national or regional grid;  (c) Charged by a grid that is connected to regional/national grid.	Yes	Yes	Please refer to <b>CL 3</b> : the GSP PoA-DD was not consistent whether the PoA will cover only lamps charged by renewable energy systems, or will also cover other options of charging lamps by standalone distributed generation system or a grid.  CL 3 was closed after ERM CVS reviewed the revised PoA-DD and can confirm that the document is consistent that the PoA will only distribute lamps whose batteries are charged by a renewable energy system included as part of the project lamp, not using mechanical charging option. I.e. the PoA will only use option (a) from paragraph 3 of the applied methodology. This will be ensured by eligibility criterion number 3 and evidenced by manufacturer specifications.	CL-3	OK
	4. At a minimum Project Lamps shall be certified by their manufacturer to have a rated average life of at least:  • 5,000 hours for Option 1, paragraph 16;  • 10,000 hours for Option 2, paragraph 17,  5. Rated average life is the life certified by the manufacturer or responsible vendor as being the time at which the lamp.s initial light output will decline by no more than 30%.  In addition, for project lamps charged using Option 3(c) as	Yes	Yes	Please refer to <b>CL 4</b> : the GSP PoA-DD stated that both Options will be used by the PoA but during the site visit interviews it was discovered that only Option 1, i.e. project lamps with 5,000 hours will be used in the POA. Further clarification and PoA-DD modification was needed.  CL 4 was closed after ERM CVS reviewed the revised PoA-DD and can confirm that the document is now consistent that the PoA will only use option 1. I.e., Project lamps are assumed to operate for two years after distribution to end users.  The minimum specifications are included in section A.6 of the PoA-DD and will be part of section A.5 of a CPA-DD, as specified in the generic CPA part of the PoA-DD. Compliance of	CL-4	OK

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
	provided for in paragraph 3 above, the manufacturer shall certify that the battery-charging-circuit efficiency of the project lamps, at the time of the purchase, is at least 50%. For project lamps charged under option indicated in paragraph 3(b), if the mini-grid or distributed generation system is not entirely powered by renewable energy generation unit(s), the manufacturer shall certify that the project lamp's battery charging circuit efficiency, at the time of purchase, is at least 50%.			<p>project lamps with these conditions will be evidenced by manufacturer's specifications and third party certificates.</p> <p>Part of the condition on Option 2 is not applicable to this PoA, as it will only include lamps whose batteries are charged by renewable energy systems included as part of project lamps.</p>		
	6. Project Lamps shall have a warranty of a minimum of one year. At a minimum, the warranty shall cover free replacement or repair of any failed lamps, batteries and where applicable solar panels. The warranty shall be provided to end users of the project lamps. In a situation where the project lamps are distributed through intermediaries, the one year warranty shall commence from the time that the project lamps are distributed to end-users.	Yes	Yes	ERM CVS checked Affiliate Toolkit part 5 and its Appendix 23 – Reference guide for station dealers and can confirm that minimum one year warranty will be offered for all products sold /24/. The warranty form /25/ will be filled in at the point of sale to the end-user. The form includes a field for the date of purchase and a field for the end date of the warranty period, which will provide evidence on the length of the warranty period communicated to the end-users. As confirmed based on interview with the representative of Total Kenya and staff of two visited stations, all stations are instructed to accept warranty claims for lamps purchased via the TATS scheme anywhere in the country. At the time of CPA inclusion, compliance with this condition can be checked against warranty terms specified by the supplier/manufacturer in product specifications or contract with the CME	OK	OK
	7. Project Lamps shall meet or exceed the following minimum performance characteristics, which should be proven by third-party test results:  [please refer to the methodology for the full list of minimum characteristics]	Yes	Yes	Compliance of the PoA with this methodology applicability condition will be ensured by the eligibility criteria developed for including CPAs into this PoA. Criterion 3 lists minimum performance specifications from the methodology that have to be met for all CPAs. I.e. only project lamps that meet these performance specifications will be eligible for inclusion in this PoA. How each lamp model to be included in a CPA meets those characteristics will be documented in section A.5 of each CPA-DD, and evidenced by manufacturer's specifications, and third party certificates where needed	OK	OK
	8. The project design document shall explain the proposed distribution method of the project lamps. It shall also explain how the proposed project activity will:  (a) Ensure that the replaced baseline lamps are those that	Yes	Yes	<p>Please refer to <b>CL 2</b>: the description in the GSP PoA-DD did not sufficiently explain the proposed distribution methods.</p> <p>CL 2 was closed after a revised PoA-DD was provided by the CME, which describes distribution channels that can be used by CPAs. Please refer to Appendix B for further details. Distribution (sales) mechanisms to be used by a</p>	<p>CAR-3</p> <p>CL-2</p> <p>CL-8</p>	OK

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>directly consume fossil fuel. This can be done through documentation of the common practice of fuel usage for lighting in the project region (e.g. based on representative sample surveys, official data or peer reviewed literature) that demonstrates that fossil fuel is a commonly used fuel for lighting;</p> <p>(b) Encourage the consumers, targeted by the project activity, to use the project lamps and discourage hoarding;</p> <p>(c) Eliminate potential double counting of emission reductions that could occur, for example, if more than one entity (e.g. lamp manufacturers, suppliers of solar and/or battery equipment, etc.) claims credit for emission reductions for the project lamps. At a minimum, project lamps shall be marked as CDM project lamps;</p> <p>(d) Ensure compliance with prevailing regulations pertaining to the use and disposal of batteries.</p>			<p>specific CPA will be described in section A.3 of each CPA-DD, and can be evidenced by the service agreement between the CME and a CPA implementer.</p> <p>(a) In the GSP PoA-DD, justification for meeting this eligibility criterion referred to the sections A.2 and B.1 of the PoA-DD (PoA description and baseline identification). In these sections description of common practice was not sufficient. Eligibility criteria also did not cover this methodology requirement. Therefore <b>CAR 3</b> was raised to justify how the PoA meets this methodology applicability condition</p> <p>In the revised PoA-DD it was made clear that the baseline is proven at the POA level, and section B.4 of part II of the POA-DD describes the baseline and how it was demonstrated. . The description was validated based on review of Lighting Africa Market Assessment Results, Quantitative Assessment – KENYA, prepared by Lighting Africa, a joint initiative from IFC and the World Bank in 2008 /10/ and cross-checked by reviewing Third Draft of the Kenya National Energy Policy /32/. Please refer to question 8.4.1 below for further details. Following these revisions, CAR 3 was closed.</p> <p>(b) The PoA-DD describes typical marketing tools to be used in the PoA for encouraging consumers to use solar lanterns. These were validated by reviewing Marketing plan in the Affiliate Toolkit part 5 /24/, and marketing material developed for activities in Kenya. Brand name called “SOLA” was developed for the activities of the POA in Kenya, as confirmed by reviewing presentation on marketing material /39/ and TOTAL SOLA brochure /40/. In order to encourage a proper use of lamps, sales persons are trained to explain the benefits of using solar lamps as well as how to use and maintain the lamps to keep them serving as long as possible. For each lamp model, there are user guides /24/, and boxes containing lamps include simple schemes on the proper use of lamps (seen by the validation team on site). As project lamps or kits may cost from 10 to 90 USD, this may represent a fair or large proportion of income for many potential customers. As lamps are not given for free but bought by the households, it is highly unlikely that hoarding may take place.</p> <p>(c) A system for elimination of double counting is described in the PoA-DD, and validated as part of the operational and management plan – please refer to question 10.1.5. Compliance of CPAs will be ensured via eligibility criterion #2.</p> <p>(d) In the GSP PoA-DD, justification on how the PoA meets applicability condition on ensuring compliance with regulations on the disposal of</p>		

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
				<p>batteries referred to section E.2 of a CPA-DD and discussing with local authorities of the countries to ensure that EIA is performed as per local regulations. However, activities of the PoA in most cases do not fall into categories that require an EIA, therefore it was not clear how this would ensure compliance. The eligibility criteria also did not have conditions for checking compliance with this methodology applicability condition. CL 8 was raised.</p> <p>In the revised PoA-DD, eligibility criteria related to methodology application have been revised to have one criterion which refers to checking methodology applicability conditions in section D.2 of a CPA-DD. Discussion on this applicability condition in section D.2 of a CPA-DD (section B.2 of a generic CPA in the POA-DD) refers to detailed description of prevailing regulations and CME waste management strategy in section A.3 of a CPA-DD. These are also described in section E.2 of the PoA-DD.</p> <p>ERM CVS checked the Environmental Management and Co-ordination Act /16/ and Guidelines for E-Waste management in Kenya /17/ as well as the response letter from National Environmental Management Authority (NEMA) /30/. The letter confirms that the activities of the PoA do not require an EIA but require getting a waste recycling licence in case lanterns are recycled; or waste transport licence for transporting failed lamps from TOTAL petrol stations to a disposal site or recycling facility. As confirmed by reviewing Affiliates Toolkit /24/ and interviews with representatives of TATS and Total Kenya, any failed lamps so far will be stored in local warehouses, and TATS is exploring options for recycling and disposal of failed/collected project lamps. For each specific CPA, a letter of authorisation by the CME will confirm that a CPA complies with the regulations on the use and disposal of batteries.</p>		
	9. The project design document shall include the minimum requirements for the design specifications of project lamps including the following specifications: [please refer to the methodology for the full list]	Yes	Yes	<p>Section A.6 of the PoA-DD provides a table with minimum characteristics of project lamps, and clearly specifies that the specifications of actual lamps will be documented for each CPA. I.e., each CPA will have to specify minimum requirements in its CPA-DD. However, in the GSP PoA-DD the eligibility criteria did not reflect this, which was not in line with the Standard for the demonstration of additionality, development of eligibility criteria and application of multiple methodologies for a programme of activities – please refer to <b>CL 7</b>.</p> <p>Eligibility criteria related to methodology application have been revised in the revised PoA-DD. Now there is one criterion which refers to checking methodology applicability conditions in section D.2 of a CPA-DD. This is suitable, and</p>	CL-7	OK

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
				as explained above, the PoA-DD clearly states that specifications of actual lamps will be documented for each CPA, and provides a table with the list of what kind of specifications will have to be documented for each CPA. The list is in line with the methodology. Compliance of lamp models included in an actual CPA will be evidenced by manufacturer's specifications and, where needed, third party certificates.		
	10. Measures are limited to those that result in emissions reductions of less than or equal to 60 kt CO <sub>2</sub> equivalent annually	Yes	Yes	<p>Although the PoA includes eligibility criterion that CPAs will generate up to 60 kt emission reductions annually, this methodology applicability condition was not discussed in section B.2 of Part II of the GSP PoA-DD. <b>CL 9</b> was raised.</p> <p>Section B.2 of part II of the revised PoA-DD includes discussion on meeting the small scale project threshold. The discussion states that the number of projects lamps will not exceed 652,000 per CPA. This is correct, as using default emissions factor (DV) of 0.092 tCO<sub>2</sub>e per project lamp, this equates to maximum 59,984 tCO<sub>2</sub>e annually, thus correctly meeting the small scale threshold for small scale project activities of type III. Emission reductions estimated for an actual CPA will be demonstrated in an emission reduction calculations spreadsheet. CL 9 was therefore closed, and ERM CVS can confirm that the POA meets this methodology applicability condition</p>	CL-9	OK

## Conclusion

The applied methodology and associated tools are fully applicable to the generic CPA and is correctly applied in the PoA-DD. There were no greenhouse gas emissions sources were identified within the proposed generic CPA boundary as a result of the implementation of the proposed CPA which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology.

### 8.2.1 Small scale project eligibility criteria

For small scale projects, the following has been checked:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.2.2	<p>Does the project meet the criteria for eligibility as a small scale project, as per decision 17/CP.7, paragraph 6(c), i.e.:</p> <p><b>Type (i) project activities:</b> renewable energy project activities with a maximum output capacity equivalent to</p>	The project falls under Type (iii). As validated in the question 8.2.1 above, the PoA-DD includes eligibility criteria that CPAs will generate up to 60 kt emission reductions annually.	OK	OK



	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>up to 15 MW (or an appropriate equivalent)</p> <p><b>Type (ii) project activities:</b> energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, by up to the equivalent of 15 GWh per year</p> <p><b>Type (iii) project activities:</b> other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15 kilotonnes of carbon dioxide equivalent annually</p>			
	Has it been demonstrated that the project is not a debundled component of a larger project activity, in accordance with the Guidelines on the Assessment of de-bundling for SCC project activities (Version 03) (EB 54, Annex 13)?	ERM CVS can confirm the in accordance with the "Guidelines on assessment of debundling for SSC project activities (version 03)" /27/, CPAs of this POA are exempt from performing a debundling check, as each lamp will generate less than 600 kt (less than 1% of the small scale threshold), and the PoA-DD includes eligibility criterion to check that project lamps in each CPA conform to this criterion – please refer to question 7.1.11 for further details.	OK	OK

## Conclusion

The small scale PoA was confirmed to fully meet the applicability criteria for a small scale PoA and the POA includes relevant provisions to ensure that each CPA is not a debundled component of a larger project activity.

## 8.3 CPA Boundary

As per VVS section 7.12, ERM CVS reviewed the description of the project boundary in the PoA-DD, including the sources and gases included in the boundary of the proposed generic CPA for the purpose of calculating project and baseline emissions for the generic CPA.

### 8.3.1 Emission sources

The emissions sources included in or excluded from the generic CPA boundary, as set out in the applied methodology are as follows:

	Source	Gas	Included in a generic CPA?	Is inclusion / exclusion justified in the PoA-DD?	How has this been validated?
Baseline emissions	Emissions from combustion of fossil fuels in baseline lamps (e.g. kerosene-based lamps)	CO <sub>2</sub>	Yes	Yes	PoA targets replacing fossil fuel-based lamps and hence the justification of the source is reasonable and is in line with the methodology
		CH <sub>4</sub>	No	Yes	Not covered as per the methodology
		N <sub>2</sub> O	No	Yes	Not covered as per the methodology



	Source	Gas	Included in a generic CPA?	Is inclusion / exclusion justified in the PoA-DD?	How has this been validated?
Project emissions	Emissions from charging the project lamps: emissions from power plants or generators that supply electricity to the grid or distributed generation system	CO <sub>2</sub>	No	Yes	PoA's description and eligibility criteria are clear that the POA covers lamps that are charged by renewable energy system included as part of the project lamp. No project emissions are included in such case, in accordance with the applied methodology /07/
		CH <sub>4</sub>	No	Yes	Not covered as per the methodology
		N <sub>2</sub> O	No	Yes	Not covered as per the methodology

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.3.1	Has the PoA-DD justified the inclusion/exclusion of all potential sources of GHG emissions as set out in the applied baseline methodology	<p>ERM CVS evaluated whether the sources of GHG emission set out in the applied methodology were included in the generic CPA boundary. The boundary in the PoA-DD states that there are no project emissions, as the project lamps will be charged using renewable energy systems. However, this was not consistent with other parts of the PoA-DD – please refer to <b>CL 3</b>.</p> <p>CL 3 was closed once the revised PoA-DD was checked and ERM CVS could confirm that the PoA-DD description and eligibility criteria have been revised to clearly state that the POA covers only lamps that are charged by renewable energy system included as part of the project lamp. No project emissions are applicable in such case, as confirmed by checking the methodology /07/.</p> <p>In the revised PoA-DD, inclusion and exclusion of GHG emissions is justified and in line with the applied methodology.</p>	CL-3	OK

## Conclusion

The identified boundary and the selected sources and gases included in the final PoA-DD are appropriately described and justified in accordance with the applied methodology. The information is correctly described in section B.3 of part II of the PoA-DD.

### 8.3.2 Emission sources not addressed by the methodology

ERM CVS evaluated whether there are any emission sources that will be affected by the generic CPA and are not addressed by the applied methodology.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.3.2	Were any emission sources identified that will be affected by the generic CPA and are not addressed by the selected approved methodology? If so, was clarification of, revision to or deviation from the methodology approved in accordance with required procedures.	Based on the site visit and review of activities to be implemented by the PoA as described in the Affiliate Toolkit /24/ and contract between the CME and Total Kenya /20/, ERM CVS did not identify any emission sources that would be affected by the PoA and are not addressed by the applied methodology.	OK	OK

## Conclusion

There are no greenhouse gas emissions occurring within the proposed CDM PoA that are not addressed by the selected approved methodology.

### 8.4 Baseline identification

As per VVS section 7.12, ERM CVS reviewed the PoA-DD to assess whether it correctly identifies the baseline for proposed CPAs, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CPAs.

The Methodology prescribes the baseline scenario as the lamps that directly consume fossil fuel, only the PDD (in this case PoA-DD) needs to describe distribution mechanisms and explain how it will be ensured that the lamps replaced by the project activities are ones that directly consume fossil fuel. As per VVS paragraph 115, no alternative analysis is required if the approved methodology that is selected by the proposed CDM PoA prescribes the baseline scenario.

The baseline identification has been validated as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.4.1	Does the PoA-DD identify the baseline for a PoA and generic CPA, a scenario that represents the anthropogenic emissions by sources of GHG that would occur in the absence of the PoA?	<p>The GSP PoA-DD described the baseline and followed the methodology but description was generic for the whole of Africa, without further information on Kenya, which is currently the only host country. Even though no alternative analysis is required according to the applied approved methodology, the GSP POA-DD completed an alternative baseline scenario analysis. <b>CL 10</b> was raised</p> <p>In the revised PoA-DD, section B.4 of part II of the PoA-DD discusses baseline scenario specified for Kenya, which is the baseline scenario for a generic CPA to be used in each actual CPA-DD. The baseline description was validated based on review of Lighting Africa Market Assessment Results, Quantitative Assessment – KENYA, prepared by Lighting Africa, a joint initiative from IFC and the World Bank in 2008 /10/. The evidence is credible, as it comes from an international institution, where reports are reviewed prior to publication, and findings are based on a survey of 1000 households and 400 small retail businesses in Kenya. The assessment report shows 90% of respondent households as well as traders are not connected to the electricity grid, and for those who are connected, about half of them experience power cuts at least once a week. Kerosene-based lights are commonly used in households and small businesses in Kenya: from household respondents, 86% use kerosene as the main power source for lighting, with further 10 % using charcoal or firewood as the main source. From trader respondents, 68% say kerosene is the main source/fuel used for lighting. This is in accordance with the methodology, which allows demonstrating the baseline “through documentation of the common practice of fuel usage for lighting in the project region (e.g. based on representative sample surveys, official data or peer reviewed literature) that demonstrates that fossil fuel is a commonly used fuel for lighting” /07/.</p> <p>ERM CVS cross-checked this by checking the website of Kenya Ministry of Energy and reviewing Third Draft of the Kenya National Energy Policy /32/. The policy is still a draft policy and but description of the background situation can be used for cross-checking purposes. Based on this document, an on-going Energy Access Scale-Up initiative has an objective to increase connectivity from 22% to 30% by the year 2014. The document also admits that Customer Average Interruption Duration Index (CAIDI) deteriorated from 4.4 hours in 2009/10 to 4.6 hours in 2010/11. This shows that connectivity to electricity grid is low and even connected customers face disruptive services. Further, the document suggests an idea to roll out a programme to distribute solar lanterns as a substitute for kerosene in lighting rural areas, poor peri-urban and urban settlements. This shows that the government admits that kerosene is currently a common fuel used for lighting.</p> <p>CL 10 was therefore closed, and ERM CVS can confirm that the PoA-DD sufficiently demonstrated that baseline of a generic CPA is kerosene-based lighting.</p>	CL-10	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	Have the procedures/ steps to identify the most reasonable baseline scenario, as required by the methodology(ies) and applicable tools, been documented clearly in the PoA-DD for a generic CPA?	<p>The Methodology prescribes the baseline scenario as the lamps that directly consume fossil fuel, if the project meets applicability that PDD (in this case – PoA-DD) describes how it is ensured that replaced lamps are indeed those that consume fossil fuel. Please refer to section 7 on validation of methodology applicability conditions.</p> <p>As per VVS paragraph 115, no alternative analysis is required if the approved methodology that is selected by the proposed CDM PoA prescribes the baseline scenario. The GSP PoA-DD nonetheless included analysis of alternatives. Please refer to CL 10.</p> <p>As described above, CL 10 was closed when analysis of other alternatives was excluded and description of baseline scenario was revised.</p>	CL 10	OK
	Are all feasible and credible alternatives identified including but not limited to all the potential scenarios listed in the methodology?	Not applicable, as the methodology provides a simplified baseline identification procedure	n/a	n/a
	Does the list of alternatives include the project activity undertaken without being registered as a CDM project?			
	Are realistic different configurations or combinations of alternatives that may be able to provide similar outputs and services considered?	Not applicable, as the methodology provides a simplified baseline identification procedure	n/a	n/a
	Are all considered alternatives assessed for consistency with (enforced) mandatory laws and regulations?	Not applicable, as the methodology provides a simplified baseline identification procedure	n/a	n/a
	<p>(a) Have all applicable CDM requirements been taken into account in the identification of the baseline scenario?</p> <p>(b) Have all relevant national and/or sectoral policies and circumstances been taken into account, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector?</p> <p>Are the relevant national and/or sectoral policies and circumstances identified and correctly considered in the PDD?</p>	There are no regulations mandating residential or small businesses' lighting applications in Kenya. This was confirmed by reviewing Lighting Africa report and its quantitative study on Kenya /09/ /10/, as well as based on ERM CVS's sector knowledge.	OK	OK

## Conclusion

Based on the site visit and documentary evidence to cross check the information contained in the PoA-DD as referenced above, ERM CVS confirms that:

- a) All the assumptions and data used by the PPs in establishing the baseline scenario of a generic CPA 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 scenario 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 PoA and its CPAs.

## 8.5 Algorithms and/or formulae used to determine emission reductions

As per VVS section 7.12, ERM CVS has evaluated whether the steps taken and equations to be applied to calculate generic CPA's project emissions, baseline emissions, leakage, and emission reductions comply with the requirements of the selected baseline and monitoring methodology.

ERM CVS conducted validation activities to determine whether the equations and parameters in the PoA-DD have been correctly applied by comparing them to those in the selected approved methodology. Where the methodology provides for selection between different options for equations or parameters, ERM CVS confirmed that adequate justification has been provided (based on the choice of the baseline scenario, context of the proposed generic CPA and other evidence provided) and that the correct equations and parameters have been used, in accordance with the methodology selected.

### 8.5.1 Ex Ante Data and Parameters

Each parameter required by the methodology and tools for this project type is listed and validated in detail as follows:

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title and description in the PoA-DD line with the Methodology?	Data unit correctly expressed in PoA-DD?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions?  How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
DV	Lamp Emission Factor	Yes	Yes	Yes	Yes. Reviewed against the applied methodology – default value specified by the methodology	N/a
GF <sub>y</sub>	Grid Factor in year y	Yes	Yes	Yes	Yes. Reviewed against the applied methodology – default value specified by the methodology for the case of lamps being charged by renewable energy systems is used	N/A

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title and description in the PoA-DD line with the Methodology?	Data unit correctly expressed in PoA-DD?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions?  How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
DB <sub>y</sub>	Dynamic Baseline Factor in year y.	Yes	Yes	Yes	Yes, reviewed against the applied methodology – default value specified by the methodology	N/A
FUR	Fuel use rate (0.03 liters/hour)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
O	Utilization rate (3.5 hours/day)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
U	Annual utilization (365 days/year)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
EF	Fuel emissions factor (2.4 kgCO <sub>2</sub> /liter)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
LF	Leakage factor (1.0)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
n	Number of fuel-based lamps replaced per Project Lamp (1.0)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
NTG	Net-to-gross adjustment factor (1.0)	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology	N/A
OF <sub>y,i,j</sub>	Percentage of project lamps distributed to end users that are operating and in service in year y, for each lamp type i and charging method j	Yes	Yes	Yes	Yes. Review against the applied methodology – default value specified by the methodology for Option 1 is used	N/A

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.5.1	<p>Have the parameters required by the methodology / tools been correctly described in the PoA-DD?</p> <p>Where the methodology provides for selection between different options for data and parameters; is the choice of data and parameters justified?</p>	<p>The parameters required by the methodology have been correctly described in the PDD.</p> <p>The methodology provides for selection of default values depending on which lamp charging mechanism is used, and which option with regard to lamp effective useful time and crediting is used. Please refer to CL 3 and CL 4 – further clarification was needed based on review of GSP PoA-DD at the time of the draft report to confirm which options will be used, and hence which parameter values are correct.</p> <p>CL 3 and CL 4 were closed once revised PoA-DD was checked and ERM CVS could confirm that the PoA-DD is consistent that its generic CPAs will only use lamps that are charged by renewable energy systems included as part of project lamps, and that only option 1 will be used whereby lamps are assumed to operate for 2 years and emission reductions for each lamp are claimed for two years only.</p> <p>Following these revisions, all parameter values are in line with the PoA description and with the default values provided in the methodology /07/</p>	<p>CL-3</p> <p>CL-4</p>	OK

## 8.5.2 Equations and calculations used to calculate emission reductions

The following steps are applied in the PoA-DD to determine emission reductions of proposed CPAs, in accordance with the methodology and tools applied:

### **Baseline emissions**

Baseline emissions are calculated as per the following equation:

$$BE_y = DV \times GF_y \times DB_y \quad (1)$$

Where:

DV	Lamp Emission Factor (default is 0.092 tCO <sub>2</sub> e per Project Lamp)
GF <sub>y</sub>	Grid Factor in year y (default is 1.0 if the Project Lamp charging mechanism utilized is charged by a renewable energy system included as part of the Project Lamp).
DB <sub>y</sub>	Dynamic Baseline Factor (change in baseline fuel, fuel use rate, and/or utilization during crediting period) in year y. Option 1: default of 1.0 in the absence of relevant information

The Lamp Emission Factor (DV) is calculated as per the following equation:

$$DV = FUR * O * U * EF / 1000 * LF * n * NTG \quad (2)$$

FUR	Fuel use rate (0.03 liters/hour)
O	Utilization rate (3.5 hours/day)
U	Annual utilization (365 days/year)
EF	Fuel emissions factor (2.4 kgCO <sub>2</sub> /liter)
LF	Leakage factor (1.0)
n	Number of fuel-based lamps replaced per Project Lamp (1.0)
NTG	Net-to-gross adjustment factor (1.0)

## Project emissions

There are no project emissions if the project lamp charging mechanism is renewable energy system.

## Leakage

As per the methodology there is no requirement to consider leakage separately. A leakage factor is accounted in the baseline emission calculations as per the methodology

## Emission reductions

Annual emission reductions are calculated as per the following equation:

$$ER_y = \sum_{i,j} N_{i,j} \times (BE_{y,i} - PE_{y,i,j}) \times (OF_{y,i,j}) \quad (3)$$

Where:

$ER_y$  Emission reductions in year  $y$  (tCO<sub>2</sub>e)

$N_{i,j}$  Number of Project Lamps distributed to end users of type  $i$  with charging method  $j$

$OF_{y,i,j}$  Percentage of Project Lamps distributed to end users that are operating and in service in year  $y$  for each lamp type  $i$  and charging method  $j$ . Assumed to be equal to 100% for years 1, 2 and 3, and equal to the value determined in paragraph 28, for years 4, 5, 6 and 7.

The emission reductions shall be considered from the date of distribution of the project lamps to end-users

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.5.2	Has the PP correctly applied all relevant calculations as required by the methodology and associated tools?  Is it fully explained how the procedures provided in the Methodology and applicable Tools are applied by the proposed PoA? (i.e. Are the required steps clearly followed?)	ERM CVS has reviewed section B.6.1 of the generic CPA part of the POA-DD against the applied methodology. The PP has correctly applied calculations of baseline emissions and emission reductions as required by the methodology. Project emissions are presented only for the case when charging mechanism is renewable energy system included as part of project lamps. The GSP PoA-DD was inconsistent with regard to charging options – please refer to <b>CL 3</b> .  CL 3 was closed after PoA-DD was revised to consistently refer that PoA includes only lamps charged by renewable energy systems included as part of project lamps. After this revision, it is sufficiently explained how the procedures provided in the methodology are applied by generic CPAs.	CL-3	OK
	Where the methodology or tool(s) provides for selection between different options for equations; is every choice of options for calculating project emissions, baseline emissions and leakage offered by the methodology correctly justified in the context of the PoA and baseline scenario?	The POA DD states that there are no project emissions since the project lamps are charged using renewable energy system. However the GSP PoA-DD was inconsistent with regard to charging options – please refer to <b>CL 3</b> .  CL 3 was closed after PoA-DD was revised to consistently refer that PoA includes only lamps charged by renewable energy systems included as part of project lamps. The methodological choices are now consistent with the PoA description and eligibility criteria.	CL-3	OK
	Are the formulae required for the determination of project emissions, baseline emissions and leakage correctly presented in a complete and transparent manner, enabling a complete identification of	ERM CVS has reviewed section B.6.1 of the generic CPA part of the POADD against the applied methodology and confirms that PP has correctly applied all relevant calculations as required by the methodology. However, from the description of steps and procedures for calculating emission reduction calculations in the GSP PoA-DD it was not clear from which point emission reductions are counted for sold lamps, given that they are sold continuously. <b>CL</b>	CL 11	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	parameters to be used and / or monitored?	<p>11 was raised.</p> <p>In the revised PoA-DD, an explanation was included that for each sold lamp, emission reductions will be claimed for 2 years. Section B.7.2 includes explanation that the PoA will use default value of 120 days to estimate the date when lamps reach end-users from the date of arrival of project lamps at affiliate central warehouse. Following these revisions, CL 11 was closed.</p>		
	If applicable, are detailed calculations provided in a traceable spreadsheet showing relevant information?	Calculation is performed at CPA level and validation of calculations for the first CPA is described in the separate CPA validation report	n/a	n/a

## Conclusion

The PoA-DD correctly applies the methodology and appropriate tools to provide a framework for calculating the emission reductions of a generic CPA. All assumptions and data used are properly listed, including references and sources where applicable. Calculation of actual baseline, project and leakage emissions will be made at CPA level.



## 9 Validation findings – Additionality

As per the VVS sections 7.12 and 8.4.8, and the ‘Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities’ /03/, ERM CVS assessed the PoA-DD to determine whether it clearly describes how the proposed CDM PoA is additional, as supported by sufficient and appropriate evidence. In accordance with the standard, additionality must be demonstrated for the POA as a whole, and it must be demonstrated that each of the individual CPAs are additional. As per the CDM Project Standard /06/, the CME must demonstrate that the proposed CDM PoA is additional in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”. A full additionality assessment is not required in the context of CPA. Instead, the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria.

As per the ‘Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities’ /03/, additionality of a PoA must be demonstrated by establishing that in the absence of CDM, none of the implemented CPAs would occur. PoAs that will include one or more microscale projects as CPA shall include eligibility criteria derived from all the relevant requirements of the ‘Guidelines for demonstrating additionality of microscale project activities’. PoAs that will include one or more small-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of Guidelines on the demonstration of additionality of small-scale project activities. PoAs that will include one or more large-scale projects as CPA shall include eligibility criteria derived from all the relevant requirements contained in the additionality section of the large-scale methodology(ies).

ERM CVS has validated the additionality of the PoA as a whole and that the PoA-DD includes adequate eligibility criteria to ensure the additionality of individual CPAs, as per the CDM Project standard. ERM CVS has ensured that all relevant additionality guidelines set out in the approved methodology and tools have been included within the eligibility criteria. ERM CVS assessed and verified the reliability and credibility of all data, rationales, assumptions, justifications and documentation provided by the PPs to support the demonstration of additionality in order to critically assess the presented evidence, using local knowledge and sectoral and financial expertise.

In undertaking this aspect of the validation, ERM CVS considered tools and documents provided by the CDM Executive Board to demonstrate the additionality of proposed CDM PoA, as well as specific complementary or alternative requirements included in the approved CDM methodology.

In the sections below, ERM CVS describes all steps taken, and sources of information used, to cross-check the information contained in the PoA-DD on additionality. Where appropriate, we describe how the validation team determined that the documentation assessed is authentic.

### 9.1 Prior consideration of the CDM

As per EB 60 annex 26, The Board agreed that the “Guidelines for the demonstration and assessment of prior consideration of the CDM” do not apply to PoAs, as at present it is expected that no component of the programme will commence prior to the start date of validation.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.1	How is the start date of the PoA determined? How was this validated?	The starting date of the POA is determined as the date when PoA was published for Global Stakeholder Process. Based on the site visit ERM CVS can confirm that prior to the start of validation, only pilot activities were undertaken for developing the system for managing and operating the PoA. GSP start date appropriately represents the date POA activities started and is in accordance with the COA Project Standard /06/. ERM CVS checked contract between the CME and Total Kenya and can confirm that these contract was signed after the start of the GSP /20/.	OK	OK

## 9.2 Additionality of the PoA as a whole

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.2	<p>Has the CME demonstrated that in the absence of the CDM either:</p> <p>(i) the proposed voluntary measure would not be implemented, or</p> <p>(ii) the mandatory policy/regulation would be systematically not enforced and that non-compliance with those requirements is widespread in the country/region, or</p> <p>(iii) that the PoA will lead to a greater level of enforcement of the existing mandatory policy /regulation.</p>	<p>The PoA-DD sufficiently demonstrates that the PoA is a voluntary action – please refer to section 6.4 of the report.</p> <p>For demonstrating additionality, the GSP PoA-DD used Guidelines for demonstrating additionality of microscale project activities, version 03.</p> <p>During the validation, the PP changed the argument to use Guidelines on the demonstration of additionality of small-scale project activities, version 09.0. The basic argument remained the same: that the generic CPAs are considered automatically additional because they are composed of isolated units, users are households or SMEs, and each unit results in emission reductions that are no larger than 600 t (according to the micro-scale guidelines), which is now presented as 5% of the small scale threshold (according to the small scale guidelines)</p> <p>ERM CVS checked whether the PoA complies with the provisions of these guidelines. The guidelines state that demonstration of barriers is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds. The list includes “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 of each unit is no larger than 5% of the small-scale CDM thresholds”</p> <p>The PoA applies this case. The threshold of CPA achieving no more than 60 kt CO<sub>2</sub>e annually is ensured by eligibility criterion #10.</p> <p>The PoA-DD sufficiently justifies how the PoA meets condition that activities are composed of isolated units that result in small emission reductions: an independent system in this case is a solar lamp, and the default emissions factor per lamp provided by the methodology is 0.092 t CO<sub>2</sub>e.</p> <p>For the condition that users of the units are households or SMS, please refer to <b>CL 2</b>: the GSP PoA-DD did not provide sufficient clarity on distribution methods and it was not sufficiently clear on how it will be ensured that the PoA targets households/ communities / SMEs.</p> <p>The CL 2 was closed after PoA-DD was revised to include description of distribution (sales) mechanisms and their respective target groups. These were validated based on review of Affiliate Toolkit /24/ and interviews with representatives of TOTAL Kenya and TATS. Please refer to Appendix B for more details.</p> <p>The revised PoA-DD includes eligibility criterion (criterion 6) for ensuring each CPA is also additional.</p>	CL-2	OK

## 9.3 Identification of alternatives

The approved methodology that is selected by the proposed CPA prescribes the baseline scenario and no further analysis is required. The methodology defines the baseline as lamps that directly consume fossil fuel, as long as the PDD (in this case PoA-DD) explains how it will be ensured that the lamps replaced by the project activities are ones that directly consume fossil fuel, therefore no further assessment of baseline alternatives is required.

## 9.4 Assessment of additionality of a CPA

As per the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” /03/, a full additionality assessment is not required in the context of CPA. Instead, the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria. ERM CVS has validated

whether compliance with the additionality-related eligibility criteria set in the PoA design document will ensure that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodologies are met.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.4.1	Will the additionality-related eligibility criteria set in the PoA design document will ensure that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodologies are met?	<p>As explained in section 9.2 above, the relevant additionality-related guidelines are 'Guidelines on the demonstration of additionality of small-scale project activities'. The eligibility criteria include conditions for checking whether CPAs meet the CPA threshold (60 kt CO<sub>2</sub>e annually), which is in line with the Guidelines. In the GSP PoA-DD, it was not clear how the eligibility criteria will ensure that CPAs meet a condition that the end users of the measure/unit are households/communities/SMEs. Please refer to <b>CL 6</b> part b).</p> <p>In the revised PoA-DD, criterion 1 refers to target groups and distribution mechanisms in section A.2 of the PoA-DD. This section clearly lists a range of possible distribution mechanisms and their respective target groups. These were validated based on review of the Affiliate Toolkit /24/, which describes how sales should be conducted using different distribution mechanisms, and interviews with the representatives of TATS and Total Kenya.</p> <p>Further, the eligibility criteria include a condition to check that CPAs meet criteria set out in section B.1 of the PoA-DD, which in turn list criteria that have to be met for CPAs to be automatically additional, and these conditions are in accordance with the Guidelines on the demonstration of additionality of small-scale project activities /26/.</p> <p>Therefore CL 6 part b) was closed and ERM CVS can confirm that the additionality-related eligibility criteria set in the PoA design document will ensure that all the relevant requirements of the Guidelines on the demonstration of additionality of small-scale project activities are met by CPAs.</p>	CL-6	OK

## Conclusion

Compliance with the additionality-related eligibility criteria set in the PoA design document will ensure that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodologies are met

## 10 Validation Findings - Operational, management and monitoring plan for the programme of activities

ERM CVS has validated the competencies of the CME in accordance with the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities' /03/. According to the requirements, the CMEs shall have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. ERM CVS has validated the management system as developed and implemented by the CME as follows.

### 10.1 Operation and Management Plan

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.1.1	Has the CME demonstrated that there is an operational and management system for the implementation and management of the PoA?	<p>The CME has explained and provided internal documents on the operational and management system for the implementation and management of the PoA. At the time of the DVR, documentation was not yet complete to validate all aspects of the operational and management system – <b>CL 12</b> was raised.</p> <p>Subsequently the PP has provided Affiliate Toolkit with a set of documents that describes how the PoA will be operated. Description in the PoA-DD was also expanded and clarified. Separate parts of the system are validated below. CL 12 was therefore closed.</p>	CL-12	OK
10.1.2	Does the operational and management system include clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies?	<p>The operational structure described in the GSP PoA-DD provided clarity on distribution of roles and responsibilities at TATS, i.e. how the roles are shared between TATS' offices: CDM office, supply management office, and distribution, implementation and training office. As process of inclusion of CPAs will be managed at TATS offices, this is considered sufficient for the purpose of managing inclusion of CPAs. However, it lacked description of affiliate's roles, and roles related to distribution, monitoring and data collection and handling. <b>CL 13</b> was raised.</p> <p>Section A.1 of part II of the revised PoA-DD now includes detailed description of distribution of roles and responsibilities between the TATS central office and affiliates. The description provides a clear understanding of roles and has been validated against documents in the Affiliate Toolkit. CL 13 was therefore closed.</p> <p>The PoA-DD also describes competence requirements for personnel of TATS CDM office. ERM CVS has reviewed CVs of key personnel from TATS office and can confirm that the CME has competencies to check features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the PoA.</p>	CL-13	OK
10.1.3	Does the system include records of arrangements for training and capacity development for personnel?	<p>Based on interviews with TATS and affiliate in Kenya, ERM CVS understands that there are plans for training and some training for personnel in Kenya has already been provided. The training materials includes reference guides for station dealers and for other distribution mechanisms on communicating warranty terms, training how lamps should be operated and maintained /24/.</p> <p>The system includes provisions for providing training and keeping training records, and engaging specialised carbon consultants to review and support key steps where needed. During the site visit, ERM CVS interviewed a representative of a carbon consultancy engaged at the development process.</p>	CL-12	OK
10.1.4	Does the system include procedures for technical review of inclusion of CPAs?	<p>Yes, the system includes procedure for technical review of inclusion of CPAs: TATS CDM officer will review documentation provided to the CME by CPA implementers and carbon consultants, and TATS Manager will be responsible for approval of CPA inclusions. Based on review of CVs of CME's personnel /28/, ERM CVS considers that procedures for technical review are feasible.</p>	CL-12	OK
10.1.5	Does the system include a procedure to avoid double counting (e.g. to avoid the	<p>During the site visit, ERM CVS has checked a template for legal agreements between the CME and CPA implementers and between the CME and suppliers, and can confirm that they include provisions that rights to claim CERs from the</p>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA)?	sale of project lamps belong to TATS. ERM CVS also checked warranty (purchase) forms and can confirm that they include a clause that a buyer waives its rights to carbon credits. These purchase forms will have to be filled for every lamp purchased, and buyers will need to sign them. Each lamp will have a serial number on a body of the lamp, and a package will have a sticker with the initiative's logo (TOTAL SOLA) – these were seen by the validation team on site. The CME's record keeping system will track lamp serial numbers to assign them to each specific CPA. Based on ERM CVS sector knowledge, these measures would be sufficient for avoiding double counting.		
10.1.6	Does the system include records and documentation control process for each CPA under the PoA?	The system includes provisions what records will be kept. The PoA-DD provides a list of records that will be kept and where they will be kept. Warranty (purchase) forms will form a key part of the monitoring and record keeping. The paper forms will be kept by TOTAL Affiliate's (Total Kenya) headquarters or in TOTAL petrol stations. The description was confirmed based on interviews with the representatives of TATS and Total Kenya	CL-12	OK
10.1.7	Does the system include measures for continual improvements of the PoA management system?	As confirmed based on interviews with TATS and Total affiliate in Kenya, the development of the system was based on learning from pilot activities, and the affiliate toolkit and training materials will continue to be updated based on experience of the PoA. The provisions include tracking non-conformities.	CL-12	OK

## **Conclusion**

ERM CVS has assessed the operational and management arrangements which have been established by the CME in order to determine that these arrangements are suitable for the PoA being validated. The arrangements are considered to be sufficient to ensure that the CME will have control of all records and information related to the implementation of individual CPAs and will be in a position to ensure each CPA is being operated in accordance with the specific requirements of the programme.

## 11 Validation Findings - Monitoring plan

ERM CVS evaluated the monitoring plan for the PoA and generic CPA to ensure that it is based on the approved monitoring methodology that has been applied. As per the VVS, ERM CVS applied a two-step process, based on review of the documented procedures, interviews with relevant personnel, project plans and any physical inspection, to assess:

- a) *Compliance of the monitoring plan with the approved methodology*:
  - (i) By means of document review, identify the list of parameters required by the selected approved methodology;
  - (ii) Confirm that the monitoring plan contains all necessary parameters, that they are clearly described and that the means of monitoring described in the plan complies with the requirements of the methodology.
- b) *The Implementation of the monitoring plan*, taking into account:
  - (i) Whether the monitoring arrangements described in the monitoring plan are feasible within the generic CPA design;
  - (ii) Whether the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed CPAs and PoA can be reported ex post and verified.

### 11.1 Compliance of the monitoring plan with the approved methodology

ERM CVS validated whether the monitoring plan for a generic CPA in the PoA-DD includes all parameters necessary for monitoring of this type of project in accordance with the approved methodology that has been applied for the generic CPA. ERM CVS checked whether the parameters are clearly described and the means of monitoring described in the plan complies with the requirements of the methodology.

#### 11.1.1 Completeness of monitoring parameters

The monitoring parameters required by the methodology and applicable tools are:

Parameter Name	Parameter Description	Is the parameter appropriately included in the Monitoring Plan? (including justification and substantiation of information, data and evidence)
$N_{ij}$	Number of project lamps distributed to end users under the PoA, identified by the type of project lamps (lamp wattage, battery type, charging method, the date of distribution)	The parameter is included in the monitoring plan of PoA-DD. It will be calculated from the total number of lamps distributed (sold)
	Distribution data	Please refer to CAR 5: the monitoring plan was to be revised at the time of the DVR.  The revised monitoring plan includes description how distribution data will be recorded

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.1.1	Are all required parameters included in the monitoring plan?	All parameters required by the methodology were included in the monitoring plan of GSP PoA-DD but based on interviews during the site visit, this monitoring plan was not be followed. <b>CAR 5</b> was raised.  In the GSP PoA-DD, the monitoring plan also included "Data to unambiguously identify each recipient of a project lamp, for all the project lamps distributed that will claim emission reductions for up to 7 years, as per option 2 paragraph 12". In	CAR-5	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>the revised PoA-DD, this parameter was correctly excluded, as the PoA will only use option 1 (lamps are assumed to operate for 2 years, and credits are claimed for 2 years only), as confirmed in closing CL 4 (please refer to Appendix B).</p> <p>The GSP PoA-DD also included monitoring parameter OFy,l,j "Percentage of project lamps distributed to end users that are operating and in service in year y, for each lamp type l and charging method j". In the revised PoA-DD, this parameter was correctly excluded from the monitoring plan and instead included as an ex-ante parameter, as the PoA will use only option 1, as confirmed in closing CL 4 (please refer to Appendix B).</p> <p>Revised monitoring plan was subsequently provided and ERM CVS can confirm that all parameters required by the methodology are included in the PoA-DD. Essentially, the CPAs will only record sales data for monitoring parameter N<sub>l,j</sub></p>		

## Conclusion

The monitored parameters included in the monitoring are complete and appropriate for monitoring of the generic CPA. In ERM CVS's opinion, the PPs are able to implement the monitoring plan.

### 11.1.2 Compliance of monitoring

For each parameter, ERM CVS has validated whether it has been addressed in accordance with the baseline and monitoring methodology.

Monitored Parameters	N <sub>l,j</sub>	Distribution data
Parameter Description correct?	Yes	N/a
Description in line with methodology?	Yes	Yes
Data unit correctly expressed?	Yes	N/a
Measurement method correctly described?	Method not dictated by the methodology	N/a
Measurement and recording frequency correctly described?	Yes - Continuous monitoring	N/a
Correct reference to standards?	N/a	N/a
Indication of accuracy provided?	N/a	N/a
QA/QC procedures described?	Yes	N/a
QA/QC procedures appropriate?	Yes	N/a

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.1.2	Are all required parameters appropriately monitored in accordance with the methodology (including applicable tools)?	<p>At the time of the DVR, <b>CAR 5</b> was raised as monitoring plan was to be revised by the PP.</p> <p>The revised PoA-DD was reviewed and checked against the methodology. All parameters required by the methodology and relevant to the POA are appropriately monitored. The monitoring plan is clear that only Option 1 will be used for monitoring and calculating emission reductions. For monitoring the date at which project lamps reach end-users, the PP opted to use a default value of 120 from the day lamps arrive at intermediaries to the date they reach end users, which is in accordance with the methodology. Given that a variety of distribution channels will be used, tracking all actual dates of reaching the end user is not feasible, and estimating average days using survey methods across all distribution channels would be complex and not feasible.</p> <p>As revised monitoring plan was in accordance with the methodology, CAR 5 was closed.</p>	CAR-5	OK

## **Conclusion**

The means of monitoring all relevant monitored parameters for a generic CPA complies with the requirements of the methodology.

## **11.2 Implementation of the monitoring plan**

ERM CVS evaluated the feasibility and sufficiency of the monitoring plan for a generic CPA. The key components of the monitoring plan are as follows.

### **Operational and management structure:**

The in-country local affiliate (Total Kenya) will record details of the arrival of containers of solar lamps to the central warehouse. Ranges of lamp serial numbers will be assigned to specific CPAs, and a default value of 120 days from intermediary to the end user will be used for estimating the date when lamps reach end users.

For each lamp sold, a paper warranty form will be filled in by the seller and signed by the buyer. The forms will be kept at petrol stations or Total Kenya headquarters – in both cases, under TOTAL's management control.

Total Kenya and its network of petrol stations will manage warranty services.

### **Equipment:**

No specific monitoring equipment will be used in the monitoring plan, which is suitable for the POA of this type. The monitoring means is record keeping of sales data

### **Quality Assurance and Quality Control (QA/QC) of equipment and data:**

Total Kenya at a central warehouse will perform quality check of lamps.

All staff involved in record keeping will be trained in record keeping procedures.



## Feasibility of the monitoring plan:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.3	<p>Are the arrangements described in the plan feasible and practical? Please consider:</p> <p>(a) operational and management structure, including responsibilities</p> <p>(b) Plans for maintenance and calibration of equipment</p> <p>(c) Plans for QA/QC of equipment and data</p> <p>(d) Installation of monitoring equipment (whether in place, or planned)</p>	<p>Please refer to CAR 5 – at DVR stage, monitoring plan was to be validated once revised monitoring plan is provided.</p> <p>CAR 5 was closed once revised monitoring plan was provided and validated. The revised monitoring plan is feasible. Operational and management structure is clear and uses existing structures for commercial monitoring and reporting.</p> <p>No equipment is involved.</p> <p>QA/QC procedures involve training on record keeping system</p> <p>For monitoring the date at which project lamps reach end-users, the PP opted to use a default value of 120 from the day lamps arrive at intermediaries to the date they reach end users. This is clearly described in the PoA-DD.</p>	CAR-5	OK

## Conclusion

Based on the validation activities performed, ERM CVS concludes that:

- (a) The monitoring plan for a generic CPA is fully in compliance with the requirements of the methodology;
- (b) The monitoring arrangements described in the monitoring plan are feasible within the design of a generic CPA;
- (c) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the generic CPA can be reported ex post and verified.

The assessment conducted by ERM CVS is by means of review of the documented procedures, interviews with relevant personnel, and a visit to the site of the first real case CPA.

## 12 Validation Findings – Sustainable Development, Local Stakeholder Consultation and Environmental Impact

### 12.1 Sustainable Development

As per VVS section 7.8, ERM CVS evaluated whether the letter of approval by the DNA of the host Party confirms the contribution of the proposed CDM PoA to the sustainable development of the host Party.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.1.1	Does the LOA from the Host Party confirm that the PoA contributes to the sustainable development of that country?	<p>At the time of the DVR, the host country LoA was not provided. Please refer to CAR 1.</p> <p>CAR 1 was closed once the LoA was provided and validated – please refer to section 5.1 of the report.</p> <p>The LoA includes confirmation that the PoA assists the Host Country in sustainable development.</p>	CAR-1	OK

### 12.2 Local Stakeholder Consultation

As per VVS 8.4.13, ERM CVS evaluated whether the local stakeholder consultation process was carried out for the whole PoA or at the CPA level. Where comments by local stakeholders were invited with regard to the whole PoA, ERM CVS assessed how these comments were invited; whether the summary of the comments received is complete and how due account was taken of all comments received.

The stakeholder consultation was conducted on a country-wide level: one stakeholder consultation per country. This is appropriately described in the PoA-DD. The stakeholder consultation is therefore validated in the CPA validation report.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.2.1	Have comments from relevant local stakeholders been invited prior to the publication of the PoA-DD on the UNFCCC website?	ERM CVS interviewed representative of Total Kenya, who coordinated organising local stakeholder consultation (LSC) in Kenya, and checked example of an invitation letter /37/, copy of a newspaper advert /38/, and LSC report, which lists attendees of the LSC meeting /35/, and can confirm that comments from stakeholders were invited in the beginning of May and consultation meeting held on 11 May 2012, before publishing PoA-DD for GSP (May 22). Invitation letters included postal address, email address and telephone numbers for submitting comments for those who could not attend the LSC consultation meeting /37/.	OK	OK
	Is the summary of comments received as provided in the PoA-DD complete?	ERM CVS checked LSC report /35/, "raw" minutes of the LSC meeting /36/, and section F of the PoA-DD /01/. Summary of comments provided in the PoA-DD is complete and in line with the LSC report and minutes.	OK	OK
	Has due account been taken of any stakeholder comments received and is this adequately and clearly described in the PDD?	Many of the comments were questions related to 2012 deadline, CER price, registration process, methodology and similar issues, and do not relate to the POA design. There were a couple of questions/comments on warranty, and on possibilities of double counting. Adequate responses were provided that are in line with the description of providing warranty services and process for avoiding double counting in the PoA-DD. No comments were provided that would impact the design or implementation of the PoA, and no serious negative issues were identified by stakeholders.	OK	OK

## Conclusion

Based on the document reviews undertaken and interviews with local stakeholders, ERM CVS concludes that relevant local stakeholders were invited to comment on the project prior to publication of the PoA-DD on the UNFCCC website, and that the consultation undertaken is adequate in the context of the project. The stakeholders did not identify any serious concerns or significant negative impacts from the construction of the project

ERM CVS has therefore validated that the local stakeholder consultation is adequate.

## 12.3 Environmental Impacts

As per VVM section 7.13, ERM CVS evaluated whether an analysis of the environmental impacts of the PoA had been conducted in accordance with paragraph 37(c) of the CDM modalities and procedures.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.3.1	Has the PP conducted an environmental impact assessment if required to do so by the host Party, in accordance with the Party's procedures, and is this described adequately in the PoA-DD?	Based on review of the Kenya Environmental Management and Co-ordination Act (EMCA) - Act No.8 of 1999 /16/, The activities of the PoA do not fall into the categories that require conducting the EIA. However, this was to be further validated once the Host Country LoA is provided.  The Host Country LoA was provided and validated, and CAR 1 was subsequently closed – please refer to section 5.1.  ERM CVS reviewed a response letter from National Environmental Management Authority (NEMA) /30/. The letter confirms that the activities of the PoA do not require an EIA.  PoA activities aimed at complying with the national regulations on battery waste are validated at CPA level.	CAR-1	OK
	Does the PoA include transboundary impacts, and if so are these impacts considered significant by the PPs or Host Party?	The main impact from the activities of the PoA is generation of waste, including battery waste, once solar lamps finish their lifetime. This is a local impact, and no transboundary impact is expected.	OK	OK

## Conclusion

It was confirmed that no environmental impact assessment is required by the host Party

## 12.4 Public funding

ERM CVS also evaluated whether the information relating to public funding in the PoA-DD Appendix 2 has been correctly presented.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.4	If the PoA involves public funding from an Annex 1 country, have the annex 1 parties involved provided an affirmation that such funding does not result in a diversion of official development assistance?	No public funding is involved in the PoA. This was validated based on interviews with the CME and implementer of the first CPA. The eligibility criteria include a requirement to confirm at CPA level that no public funding is used or if used does not result in diversion of official development assistance.	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	Is the information provided on public funding (PoA-DD, Appendix 2) provided in compliance with the actual situation or planning?	Information in the PoA-DD correctly reflects the actual situation	OK	OK

## **Conclusion**

ERM CVS has confirmed that there is no public funding from Annex 1 countries at the POA level.

## 13 Appendix A: Documents and Interviewees

### A.1 DOCUMENT LIST

Reference number	Date	Document Title and version number (if applicable)
01	19 March 2012 20 December 2012	<b>PoA Design Document</b> for the proposed PoA Version 01 (for GSP) Version 07 (final).
02	07 November 2012	<b>Host Country Letter of approval</b> for the proposed PoA issued by the National Environment Management Authority (NEMA), DNA of Kenya
03		Standard for the demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, version 02.1, EB 70 Annex 05
04	19 November 2012	<b>Modalities of Communication</b> for the proposed PoA.
05		Validation and Verification Standard, version 03, EB 70 Annex 03
06		CDM Project Standard, version 02.1, EB 70 Annex 02
07		Programme of Activities Design Document form, version 02.0
08		Guidelines for completing the programme design document form for small-scale CDM programmes of activities, version 02.0
09	October 2010	Solar Lighting for the Base of the Pyramid - Overview of an Emerging Market. Lighting Africa, a joint initiative from IFC and the World Bank. Prepared by Dalberg Global Development Advisors
10	2008	Lighting Africa Market Assessment Results. Quantitative Assessment – KENYA. Lighting Africa, a joint initiative from IFC and the World Bank.
11	2012	10 steps to sell solar lamps. Guidelines for Station Dealers and Stockists. Prepared by TOTAL
12		TOTAL Solar lamp purchase forms used in the pilot phase
13		TOTAL Solar After Sales Service & Warranty
14	28 May 2010	Guidelines on assessment of debundling for SSC project activities, EB 54 Annex 13
15	29 Sep 2011	Guidelines for demonstrating additionality of microscale project activities, version 03, EB 63 Annex 23
16	1999	The Environmental Management and Co-ordination Act, No. 8 of 1999
17	Dec 2010	Guidelines for E-Waste Management in Kenya
18	11 September 2012	Confirmation of authorised signatories for Modalities of Communication Statement. Letter from TOTAL ACCESS TO SOLAR, signed by Director Manoelle Lepoutre

Reference number	Date	Document Title and version number (if applicable)
19	04 April 2012	POA validation contract between ERM CVS and Total Access to Solar
20	29 August 2012	Signed agreement between Total Access to Solar and Total Kenya Limited
21	18 June 2012	Carbon rights terms in the contract between Total Access to Solar and D.light Design
22	06 July 2011	Carbon rights terms in the contract between Total Access to Solar and Sundaya International Pte Ltd
23	28 July 2012	Carbon rights terms in the contract between Total Access to Solar and Phocos AG
24	August 2012	Affiliate Toolkit: <ol style="list-style-type: none"> <li>1. Presentation of Total Access to Solar (TATS) and the TATS Paris Team</li> <li>2. Purchasing, including product catalogues</li> <li>3. Stock and logistics</li> <li>5. Sales</li> <li>6. Aftersales</li> <li>7. Reports</li> <li>9. Affiliate organisation</li> </ol> <p>(4 and 8 were not provided to the DOE)</p>
25	n/a	Warranty certificate (proof of purchase form for each lamp)
26	20 July 2012	Guidelines on the demonstration of additionality of small-scale project activities, version 09.0, EB 68 Annex 27
27	28 May 2010	Guidelines on assessment of debundling for SSC project activities, version 03, EB 54 Annex 13
28		CVs of the CME's personnel involved in management and operations of the POA
29	13 September 2012	Standard for sampling and surveys for CDM project activities and programme of activities, version 03.0, EB 69 Annex 4 – not used in the final validation report
30	23 August 2012	Response from National Environment Management Authority (NEMA) RE: Application for a compliance letter for the distribution of solar lanterns to Kenyan households and small businesses
31	23 August 2012	Final response to submission SSC_641 "Revision of AMS-III.AR to include a discount factor for the percentage of end users having more than 5 lamps"
32	11 May 2012	Kenya National Energy Policy, third draft
33	28 November 2012	Email response from Prof. Geoffrey Wahungu, NEMA (DNA of Kenya), confirming LoA authenticity
34	11 May 2012	TATS solar lantern program Kenya Local stakeholder consultation. Presentation

Reference number	Date	Document Title and version number (if applicable)
		prepared by TATS
35	June 2012	CDM Local Stakeholder Consultation Report. TATS – Solar Lantern Programme of Activities. Prepared by TATS
36	11 May 2012	Minutes of the Local Stakeholder Consultation, Lenana Conference Centre, Nairobi
37	02 May 2012	Example of invitation to the Local Stakeholder Consultation. Sent by Total Lenya Ltd to Anne Nyatichi Omambia from the National Environment Management Authority (NEMA)
38	04 May 2012	Scanned copy of ad inviting to a stakeholder consultation in Daily Nation newspaper
39	24 June 2011	Total Sola. Presentation to Total Kenya by Fireworks.
40		Total Sola brochure

## 13.1 A.2 INTERVIEWS

Reference	Name	Title & Organisation	Main topics discussed
IV1	Mathieu Eveillard	Total Access to Solar	Development and description of the PoA, operational and management plan, monitoring plan, eligibility criteria
IV2	Brendan Whelan	Carbon portfolio analyst, Total Gas and Power	Description of the PoA, eligibility criteria, monitoring plan
IV3	Rodrigo Castellanos	Director, Ramp Carbon	Methodology application, eligibility criteria, PDDs
IV4	Ndiga Kithae	Solar project co-ordinator, Total Kenya	Pilot phase of the PoA, first real case CPA

## 14 Appendix B: Remediation Form

### Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs)

Corrective Action Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CAR 1. Host country LoA and Annex I country LoA have not been provided.	5.1.1-5.1.4, 5.2.1, 5.3.1	The PP has provided LoA to the DOE	ERM CVS has reviewed the LoA issued by the Kenyan National Environment Management Authority. It is validated in section 5 of the validation report. The Annex 1 PP was removed from the PoA.  CAR 1 is closed
CAR 2. CDM Modalities of Communication (MOC) for the proposed PoA have not been provided	5.2.1, 5.4.1	The PP has submitted a revised MOC. It has also provided evidence confirming that corporate and personal details including specimen signatures are valid and correct for TATS.	ERM CVS reviewed the MOC and letter from Total Access to Solar confirming that corporate and personal details including specimen signatures are valid and correct. Further details on validation of MOC are in section 5 of the validation report  CAR 2 is closed
CAR 3. Justification is not sufficient on how the PoA meets methodology applicability condition that PDD needs to explain how the proposed project activity will ensure that the replaced baseline lamps are those that directly consume fossil fuel.	7.2.1	Footnote 7 of the Methodology states: " <i>based on the demonstration that fossil fuel is the predominant practice for lighting as per paragraph 6(a), it is assumed <b>all baseline emissions</b> are from the consumption of fossil fuel burning for lighting.</i> " The PP has provided further evidence in the PoA DD and CPA DD to confirm that the use of kerosene is common practice fuel for lighting in Kenya. Common Practice is demonstrated at PoA level as stated in PoA-DD.	ERM CVS reviewed revised PoA-DD and CPA-DD. The PP has chosen to prove the baseline at POA level. The description of baseline in Kenya was validated based on review of Lighting Africa Market Assessment Results, Quantitative Assessment – KENYA, prepared by Lighting Africa, a joint initiative from IFC and the World Bank in 2008 /10/ and cross-checked by reviewing Third Draft of the Kenya National Energy Policy /32/. For further details please see validation report question 8.4.1.  CAR 3 is closed
CAR 4. Justification is not sufficient in the PoA-DD on how the PoA meets methodology applicability condition on	7.2.1	As per the latest version (V4) of AMS.III.AR, this condition has been removed from the methodology. The PP has updated the PDDs accordingly by removing the proposed approach and	The PP has revised PoA-DD and CPA-DD to use version 4 of the methodology AMS.III.AR and removed explanation for the proposed procedure to ensure no



# CDM Validation Report



Corrective Action Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
restricting the number of project lamps to no more than 5 per household or business location.		sampling plan to calculate a discount factor for lanterns exceeding the threshold of 5 per household or business location	more than 5 project lamps per household or business location, and to remove the sampling plan. Instead, the PoA-DD includes description of marketing procedures for encouraging the use of solar lamps, and arguments why hoarding is not expected. This is in accordance with version 04 of the applied methodology.  CAR 4 is closed
CAR 5. During the site visit the PoA developer confirmed that the monitoring plan described in the GSP PoA-DD will not be followed. Please provide revised monitoring plan	11.1	Revised monitoring plan was provided in the revised PoA-DD.  As mentioned in CAR4, the sampling plan was later removed from the PoA-DD since there is no requirement to comply with restricting the number of project lamps to 5 per household or business location	ERM CVS reviewed the monitoring plan in section B.7 of Part II and section B.3 of part I of the revised PoA-DD. It is in compliance with revised (version 04) of the applied methodology, as validated in section 10 of the report.  CAR 5 is closed

Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CL 1. Section D.2 of the PoA-DD only states the starting date without describing how it was determined, which is not in line with the guidelines for completing the programme design document form for small-scale CDM programme of activities. Please explain in the PoA-DD how the starting date was determined.	6.3.1	As per EB 70 and CDM Glossary of Terms (Version 07), the CME has selected to define the start date as the date of publication of the PoA-DD for Global Stakeholder Consultation.	The revised PoA-DD defined the starting date in accordance with the CDM Project Standard /06/. Although sales of solar lanterns have been piloted earlier, ERM CVS can confirm that based on interviews and document review the programme had not started yet during the site visit, and the PoA was in the planning stages only: procedures, training materials and templates were being developed based on pilot activities.  CL 1 is closed.

Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CL 2. The objective of the PoA states that the PoA would first target low-income populations. One of the conditions for applying additionality guidance of microscale project activities, is that the end users of the systems (in this case lamps) are households/ communities/ SMEs. However, the description of the PoA and typical CPA does not provide sufficient clarity on distribution and it is not sufficiently clear on how it will be ensured that the PoA targets low income populations / communities / SMEs, and especially those that are currently using kerosene-based lamps. Please clarify and modify the description.	6.4.2(b), 9.2	<p>The PP has included an explanation of how the different distribution mechanisms that will be part of the CPAs will target low-income households, communities and SMEs. Furthermore, this explanation is aligned with the information provided in the supporting document called <b>Affiliate Toolkit (especially chapter 5 – Sales)</b>, which describes the systems, procedures, and strategies that are in place across the different stages of the project.</p> <p>For clarification, the PP has selected to follow the requirements of the “Guidelines on the Demonstration of Additionality of Small-scale Project Activities Version 09.0”. The activities will therefore be regarded as small-scale, rather than microscale project activities.</p> <p>As described in the PoA-DD, warranty forms will be available to the DOE at the time of verification irrespective of which of the two channels are used (i.e. 1. Warranty form archived physically at Affiliate HQ level; 2. Affiliate HQ maintaining a database with serial number of lamp sold and place of sale to trace warranty forms from petrol stations). In both cases the PP will have direct access to the warranty forms.</p>	<p>The aim of the PoA has been slightly revised to state that it will target households and businesses with a particular focus on the “base-of-pyramid population”. Section A.2 now includes a table with a list of distribution mechanisms that can be used by CPAs to reach households and small businesses and their respective target populations. This was validated by reviewing Affiliates Toolkit part 5 – Sales. The document describes in more detail how different distribution channels may be organised, including areas of particular attention. More detailed guide is available for using the Total network (“Solar lamps - quick reference guide for managers”), and similar guides are under development for other distribution channels. The Toolkit also includes clauses to be adapted and incorporated in a local contract between a Total’s affiliate and a lamp reseller. As warranty forms will be kept either at Total Kenya headquarters or at its network of service stations, they will be under Total’s management control.</p> <p>CL 2 is closed</p>
CL 3. The PoA description and other sections of the PoA-DD lack consistency whether the PoA will use only off-grid technologies / lamps charged by renewable energy systems included as project lamps, or will also cover other options from the methodology, including charging the lamps from the grid. Please clarify and modify the PoA-DD as necessary.	6.4.3, 8.2.1, 8.5.1, 8.5.2	The PP has modified the PoA-DD and CPA-DD accordingly and is using only lamps charged with renewable energy systems.	<p>ERM CVS has reviewed the revised PoA-DD and can confirm that the document is consistent that the PoA will only distribute lamps whose batteries are charged by a renewable energy system included as part of the project lamp. I.e. the PoA will only use option (a) from paragraph 2 of the applied methodology.</p> <p>CL 3 is closed.</p>
CL 4. The description and other parts of	6.4.3,	The PP has modified the PoA-DD and CPA-DD accordingly	ERM CVS has reviewed the revised PoA-DD and can

Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
the PoA-DD indicate that both Options provided by the methodology on the lamp effective useful life, monitoring and crediting, will be used by the PoA. However, during the site visit the PoA developer clarified that only Option 1 will be used. Further clarification and PoA-DD modification is needed.	8.2.1, 8.5.1	and is using only Option 1 for the effective useful life of the project lamps.	confirm that the document is now consistent that the PoA will only use option 1 for the lamp effective useful life as specified in paragraph 11 of the applied methodology. I.e., Project lamps are assumed to operate for two years after distribution to end users. Therefore, under this option, emission reductions may only be claimed for two years. Emission reduction calculations are validated in section 8.5 of the validation report.  CL 4 is closed.
CL 5. The PoA description is not sufficiently clear and comprehensive:  a) The PoA boundary is not clearly defined  b) The description does not provide a summary how the PoA reduces GHG emissions and what are the main emission sources involved  c) No information is provided whether technology transfer will be involved.  Please modify the PoA-DD	6.4.2(a), 6.4.3, 7.1.1	a) The PP has specified that the PoA will only cover Kenya in this first phase. The PoA-DD has been modified accordingly  b) As mentioned in CL3, the PP has clarified that only project lamps charged by renewable energy systems will be used in the PoA. As such section B.3 in the Generic CPA-DD and D.4 of the CPA-DD specify the source of GHG emission reductions attributable to the project activity and the main emissions sources involved (i.e. kerosene)  c) Section A.6 of the PoA DD has been modified to mention the benefits of technology transfer by providing Kenya with high quality solar lanterns.	ERM CVS has reviewed section A.2 of the revised PoA-DD  a) The PoA boundary is clearly specified as the Republic of Kenya. This was confirmed based on interviews with a solar project coordinator in Total Kenya during the site visit  b) Section B.3 in the generic CPA part of the revised PoA-DD correctly describes emission sources and GHGs involved, and Section A.2 summarises them. The sources are in line with the PoA description and the methodology.  c) Section A.6 of the revised PoA-DD describes technology transfer, which will primarily be South-South. This is in line with the site visit, during which validation team saw lamps from the pilot phase, which were manufactured in India  CL 5 is closed.
CL 6. For some of the eligibility criteria (2, 6, 7, 8), it is not sufficiently clear how it will be assessed whether a CPA meets	7.1.2, 7.1.6, 7.1.7,	a) Indeed, no Data Management System will be used for monitoring. However, every single solar lantern sold by TATS will be uniquely identified by its serial	a) The criterion on avoiding double counting and information on how compliance with the criterion will be ensured, have been revised in the

Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
<p>them, which is not in line with the EB 65 Annex 3. E.g.:</p> <ul style="list-style-type: none"> <li>a) the criterion 2 refers to unambiguous identification of solar lanterns in the database management system but during the site visit it was clarified that the POA will not use a database management system.</li> <li>b) it is not clear in the PoA-DD how, on what basis, it will be assessed whether a CPA meets a condition that the end users of the measure are households/communities/SMEs</li> <li>c) the criteria include checking whether a CPA satisfied all the requirements stipulated by the CME with regard to local stakeholder consultations and environmental impact analysis, but it is not clear what are those requirements</li> <li>d) the criteria include checking whether a CPA satisfied all the requirements stipulated by the CME with regard to target group and the distribution mechanisms but it is not clear what are those requirements</li> </ul> <p>In addition, the following questions were raised based on review of revised</p>	<p>7.1.8, 9.4.1</p>	<p>number and no double counting will be possible. Furthermore, TATS will keep hard copies of the sales certificates (i.e. proofs of purchase or warranty cards) of the lanterns that will be sold to end-users. This system is described in section B.7.2 of the PoA_DD Part II.</p> <p>The PP has added in Section B.7.2 of the PoA DD Part II the relevant Terms and Conditions included in the Warranty form that incorporate the legend: "The client voluntary, unconditionally and irrevocably cede without cost or charge to TATS any rights whatsoever to any carbon credits which may arise through this solar lantern programme."</p> <p>Also, Eligibility Criteria number 2 has added the following statement to ensure that double counting is avoided between the CME and the CPA Implementer:</p> <p>"A contractual agreement in place between the CPA implementer and the CME that clearly and unambiguously assigns the rights to carbon credits?</p> <p>This will be demonstrated by the Letter of Authorisation provided by the CME to the CPA implementer where this type of agreement has to be reviewed and approved. This has been added in Section C of the PoA DD Part I (Procedure for technical review of inclusions of CPAs)</p> <ul style="list-style-type: none"> <li>b) Section A.3 in the CPA-DD provides a description of the different distribution channels that will be used in order to reach households, communities and SMEs. The condition of reaching households, communities and SMEs is aligned with the requirement for the</li> </ul>	<p>revised PoA-DD. It refers to the section on the monitoring plan in a CPA-DD as means of demonstrating compliance with this criterion, where a description is provided how filled in warranty forms will be collected that include terms on assigning carbon rights to TATS. Another part of the criterion is ensuring a contract is signed between the CME and CPA implementer that includes clauses on assigning carbon rights, and similar contractual arrangements between the CME and solar lamp suppliers.</p> <ul style="list-style-type: none"> <li>b) Eligibility criteria related to methodology application have been revised. Now there is one criterion which refers to checking methodology applicability conditions in section D.2 of a CPA-DD. Methodology applicability conditions are validated in section 8.2 of the validation report. . Eligibility criterion on additionality was revised to refer to section B.1 of the POA-DD. In this section, the PoA-DD correctly refers to each CPA generating emission reductions of less than 60 ktCO<sub>2</sub>e per year, distribution channels targeting households and SMEs, and each lamp having annual emissions of less than 3,000 tCO<sub>2</sub>e. These criteria are in line with the latest version of the Guidelines on the demonstration of additionality of small-scale project activities (version 09.0)</li> <li>c) Eligibility criteria in the revised PoA-DD do not include criteria related to stakeholder consultation or environmental analysis. This is suitable, as stakeholder consultation and environmental analysis was undertaken at PoA level and is validated in section 12 of the</li> </ul>

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<p>eligibility criteria:</p> <p>e) Criterion 4 refers to provision of the arrival records of solar lanterns to the affiliate central warehouse as a means of confirming starting date of a CPA. It is not clear if such records will be available at the time of CPA inclusion – please clarify</p>		<p>automatic additionality of the project according to the “Guidelines on the Demonstration of Additionality of Small-scale Project Activities Version 09.0”. As such the PP has addressed this issue within the eligibility criteria that deals with the conditions for automatic additionality.</p> <p>c) Section F.1 of the PoA DD (Stakeholder section) has been modified to confirm that the Stakeholder consultation session will take place at a PoA Level. The EIA section already mentions this. If more countries are added to the PoA in the future, these sections will be expanded to cover those countries. As such the eligibility criteria that requires CPAs to satisfy the requirements related to Stakeholder consultation and EIA has been removed.</p> <p>d) Table 1 in Section A.2 of Part I of the PoA DD describes the targeted groups as well as the different distribution mechanisms that are in place to reach each targeted group.) Eligibility Criteria number 1 reflects this information.</p> <p>e) As per Eligibility Criteria #4, the Start Date of each CPA is confirmed through the provision of Supplier Order Forms (i.e. confirmation of purchase of solar lanterns between TATS and the supplier).</p>	<p>validation report. -</p> <p>d) In the revised PoA-DD, criterion 1 refers to target groups and distribution mechanisms in section A.2 of the PoA-DD. This section clearly lists a range of possible distribution mechanisms and their respective target groups. These were validated based on review of the Affiliate Toolkit /24/, which describes how sales should be conducted using different distribution mechanisms, and interviews with the representatives of TATS and Total Kenya</p> <p>e) The criterion was appropriately changed to using a date when TATS places order of lamps to the supplier, as a starting date of a CPA. This is in line with the CDM Glossary of Terms, as it would be earliest date of real action for a CPA.</p> <p>CL 6 was closed</p>
<p>CL 7. it is not clear how the eligibility criteria ensure compliance with the following requirements of the methodology:</p> <p>a) Paragraph 6, on explanation of distribution mechanisms,</p>	7.1.5	<p>a) The PP has included an eligibility criteria that requires CPAs to meet the methodological and monitoring requirements as stipulated in AMS.III.AR. This criteria will be met and explained in sections D.1 and D.2 of</p>	<p>Eligibility criteria related to methodology application have been revised in the revised PoA-DD. Now there is one criterion which refers to checking methodology applicability conditions in section D.2 of a CPA-DD. Methodology applicability conditions are validated in section 8.2 of the validation report.</p>

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<p>ensuring that replaced baseline lamps are those that directly consume fossil fuel, and ensuring compliance with prevailing regulations pertaining to the use and disposal of batteries;</p> <p>b) Paragraph 7, that PDD shall include minimum requirements on lamp wattage, type of the batteries etc.</p> <p>c) Paragraph 8, on restricting the number of project lamps to no more than 5 per household or business location</p> <p>Please clarify and modify the PoA-DD as necessary</p>		<p>CPA-DDs.</p> <p>b) This is a “methodological requirement, therefore will be covered as per a)</p> <p>c) The CPA has been updated to version 04.0 of the methodology, where this requirement has been removed.</p>	<p>The CPA has been updated to version 04.0 of the methodology, where the requirement on restricting the number of project lamps to no more than 5 per household or business location has been removed.</p> <p>CL 7 is closed</p>
<p>CL 8. Justification on how the PoA meets applicability condition on ensuring compliance with regulations on the disposal of batteries refers to section E.2 and discussing with local authorities of the countries to ensure that EIA is performed as per local regulations. However, activities of the PoA in most cases do not fall into categories that require an EIA, therefore it is not clear how this will ensure compliance. The eligibility criteria also do not have conditions for checking compliance with</p>	8.2.1	<p>The PP has added a section called “<i>Compliance with prevailing regulations pertaining to the use and disposal of batteries</i>” in Section A.3 of the CPA-DD. In this section, the PP describes how and why the CPA complies with any guideline or regulation of this kind in Kenya in the same way that this was documented at a PoA level.</p> <p>With regards to the licences required by the EIA office, Total Kenya has approved licences for the transportation of solar lanterns (operating or failed, since there is no difference on licence between working or not working solar lanterns). The other licences required by EIA office are necessary, as per the letter received from them, only If recycling is performed within Kenya. Total will ensure, in case that this is the selected</p>	<p>ERM CVS reviewed revised PoA-DD and CPA-DD, and a response letter from National Environmental Management Authority (NEMA) /30/. The letter confirms that the activities of the PoA do not require an EIA but requires getting a waste recycling licence in case lanterns are recycled; or waste transport licence for transporting failed lamps from TOTAL petrol stations to a disposal site or recycling facility; and other relevant approvals.</p> <p>Eligibility criteria related to methodology application have been revised to have one criterion which refers to checking methodology applicability conditions in section D.2 of a CPA-DD. Discussion on this applicability</p>

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this methodology applicability condition.		<p>option, that the company performing the recycling of the solar lanterns in Kenya has the appropriate licences. A paragraph mentioning this has been included in Section E.2 of the PoA DD Part I</p> <p>The PP outsources the transportation of petroleum products to specialised transportation companies. In the case of Kenya, TKL has a contract in place with Roy Transmotors Limited for the transportation of all petroleum, LPG and petrol station related products (i.e. solar lanterns). The Energy Regulatory Commission (ERC) of Kenya provided Roy Transmotors with a Licence for this type of transportation (please see attachment).</p> <p>The PP wishes to confirm that there is no specific licence for the "transportation for solar lanterns" in Kenya. Although TKL already has a contract in place with a specialised transportation company authorised by ERC, a Licence is required as per NEMAs letter ONLY if "<b>the failed lanterns are delivered to a disposal site or be recycled</b>". There is no requirement for a license for transportation of solar lanterns as such but only if failed solar lanterns are to be delivered to a disposal site or recycled. Currently TATS is exploring options for the recycling and responsible disposal of solar lanterns.</p> <p>The PP has added a paragraph in section E.2 of the PoA-DD Part One that describes the fact that the PP will always engage specialised transportation companies with the adequate licences in place - as is in the case in Kenya with Roy Transmotors Limited.</p>	<p>condition in section D.2 of the CPA-DD refers to detailed description of prevailing regulations and CME waste management strategy in section A.3 of the CPA-DD. So far the failed lamps will be stored in petrol stations or central warehouse and the CME is exploring options for recycling or disposal. Therefore no licence is required yet.</p> <p>CL 8 is closed.</p>
CL 9. Although the PoA includes eligibility criterion that CPAs will generate up to 60 kt annually, this methodology applicability condition is not discussed in section B.2 of Part II of the PoA-DD. Please modify the PoA-DD.	8.2.1	<p>Section B.2 has been modified accordingly. The number of solar lanterns will never exceed 652,000 sold lanterns per CPA in any given year as per the "Guidelines on the Demonstration of Additionality of Small-scale Project Activities Version 09.0".</p>	<p>Section B.2 of part II of the PoA-DD now includes discussion on meeting the small scale project threshold. The discussion states that the number of projects lamps in any year (taking into account assumed operational time of 2 years for each lamp) will not exceed 652,000 per CPA. This is correct, as using default emissions factor (DV) of 0.092 tCO<sub>2</sub>e per project lamp, and</p>

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			<p>assuming that no discount factor is used in case more than 5 lamps are sold to some households or businesses, this equates to maximum 59,984 tCO<sub>2</sub>e annually, thus correctly meeting the small scale threshold for small scale project activities of type III.</p> <p>CL 9 is closed.</p>
CL 10. The PoA-DD describes the baseline but description is generic for the whole of Africa, without further information on Kenya, which is currently the only host country. Even though no alternative analysis is required, the POA-DD includes an alternative scenario analysis. Please modify the PoA-DD	8.4.1	<p>PoA-DD has been modified accordingly to mention baseline and common practice evidence for Kenya only. Also, alternative scenarios have been removed from the PoA-DD.</p> <p>Common Practice is demonstrated at the PoA level. The PP confirms that information of common practice will be updated in case new countries are added to the PoA.</p>	<p>ERM CVS reviewed revised PoA-DD. Section B.4 of part II of the PoA-DD now discusses baseline scenario specified for Kenya. The baseline description was validated based on review of Lighting Africa Market Assessment Results, Quantitative Assessment – KENYA, prepared by Lighting Africa, a joint initiative from IFC and the World Bank in 2008 /10/, and the applied methodology. Please refer to question 8.4.1 for more details.</p> <p>CL 10 is closed.</p>
CL 11. Please clarify what steps/procedure will be used for calculating emission reductions given continuous sale of lamps	8.5.2	<p>The PP will use a default value (120 days) to define the date of sales of solar lanterns. As such, although there will be continuous sale of lamps, the date of sale will be determined by the application of the default value to the date on which solar lanterns arrive at the Affiliate's central warehouse. Emission reductions will be calculated using these estimated dates of sale up until the chosen end date of the monitoring period. The PP has provided an excel file that explains the Emission Reduction calculation for CPA1.</p> <p>The PP considers the central warehouse as an acceptable intermediary for the following reasons:</p> <ol style="list-style-type: none"> <li>1) The PP, as part of its record keeping system, has confidence on tracking the arrival of solar lantern serial numbers and containers at the Central Warehouse level. The PP wouldn't be able to track</li> </ol>	<p>Section B.7.2 includes explanation that the PoA will use default value of 120 days to estimate the date when lamps reach end-users from the date of arrival of project lamps at affiliate central warehouse. During the site visit ERM CVS interviewed representative of Total Kenya who is responsible for implementation of PoA activities in Kenya on how the distribution is organised and checked records of pilot activities, and can confirm that considering central warehouse as an intermediary for applying default of 120 days until distribution to end users is suitable. The actual date of sales is recorded for each lamp on a warranty form but it is not feasible to transfer all dates from all forms into an electronic system. However, a sample can be checked at verification stage.</p> <p>CL 11 is closed.</p>



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		<p>with the required level of detail (particularly the solar lantern serial number), which solar lanterns go to specific resellers. As such, it is more efficient to use the central warehouse for the purpose of accurately calculating the date of sale (via the 120-days default factor) of each solar lantern. Tracking the date of delivery of lamps (by means of serial numbers) to re-sellers such as young entrepreneurs or individual petrol stations is an administrative, time and cost intensive exercise not required by the methodology or the SSC-WG revision.</p> <p>2) The PP believes that 120-days (4 months) between a solar lantern arriving in Kenya (at the central warehouse) and that solar lantern being sold is aligned with the project proponent's experience to date as per the pilot project of the time lag between arrival of new containers and date of sale to end-users.</p> <p>3) Furthermore, the PP considers this interpretation of the SSC WG's methodology clarification to be aligned with the rationale from the SSC-WG to allow projects to use the 120 days default figure. It is not economically feasible to expect that a micro business re-sellers, young entrepreneurs or small petrol stations could store a solar lantern for up to 4 months before it is sold. As such the use of Central warehouse is more reasonable.</p>	
CL 12. Documentation on management and operational system of the PoA provided to a DOE is not complete. Please provide full set of documents/procedures.	10.1.2	<p>Management section of the PoA-DD has been modified accordingly. Information of the roles and responsibilities of the affiliate can also be found in the <b>Affiliate Toolkit</b>.</p> <ul style="list-style-type: none"> <li>The PP has added in Table 4 (Sales Section) the description of who is in charge of filling and storing the</li> </ul>	ERM CVS reviewed section C of the revised PoA-DD and documents in the Affiliate Toolkit /24/. The Management system described in section C now covers all aspects required by the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities /03/. Distribution of roles and responsibilities is

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		<p>warranty forms (the Affiliate).</p> <ul style="list-style-type: none"> <li>Training records include copy material presented in the training sessions and list of attendees to each of the sessions. This has been added to section <i>Records of arrangements for training and capacity development for personnel</i></li> <li>CER ownership rights will be clear in all contractual agreements between CME, CPA Implementers and suppliers. Equally the PP confirms that each warranty form includes as part of its Terms and Conditions a legend that explains to the end user that the rights associated with the carbon credits for the solar lantern belong to Total. This information has been added to the section to <i>Procedure and systems to avoid double counting of emission reductions</i></li> </ul>	<p>now clear.</p> <p>CL 12 is closed</p>
CL 13. Please improve and clarify description of roles and responsibilities at all levels, including roles in distribution, monitoring and data handling	10.1.2	PoA-DD has been updated accordingly – please refer to Section C of PoA-DD and section A.1 of the Generic CPA Part II	<p>ERM CVS reviewed revised PoA-DD. Section A.1 of part II of the PoA-DD now includes detailed description of distribution of roles and responsibilities between the TATS central office and affiliates. The description has been validated against documents in the Affiliate Toolkit /24/.</p> <p>CL 13 is closed.</p>

In addition some editorial and minor changes to the PoA-DD were made by the PP that had no relevance on compliance with CDM requirements.

Forward Action Requests	Ref. to Section Number	Summary of PP's response	Final conclusion
No FARs were raised			