FINAL VALIDATION REPORT
STANDARD BANK PLC

VALIDATION OF THE
GREEN LIGHT FOR AFRICA

REPORT NO. KENYA-VAL/011/2011
REVISION NO. 05

BUREAU VERITAS CERTIFICATION
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Client: Standard Bank Plc	Client ref.: Mr. Geoff Sinclair

Summary:

Bureau Veritas Certification has made the validation of the 'Green Light for Africa' project of Standard Bank plc located at 20 Gresham street, London, United Kingdom on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

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

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

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology AMS II J version 4 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Report No.: BVC/Kenya-Val/011/2011	Subject Group: CDM	
Project title: Green Light for Africa		
Work carried out by: Team Leader: Andrew Kinyanjui Team member: George Wambua Team member: James Chirchir		
Internal Technical Review carried our by: Tim WANG Wei		
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Work approved by:

Flavio Gomes

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1 INTRODUCTION

The Standard Bank Plc (hereafter called "PP") of 20 Gresham street London United Kingdom has commissioned Bureau Veritas Certification to validate its CDM project Green Light for Africa (hereafter called "the project") at Kenya and Zimbabwe.

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

1.1 Objective

The validation serves as programme design verification and is a requirement of all programmes. The validation is an independent third party assessment of the programme design. In particular, the PoA's baseline, the monitoring plan (MP), and the programme's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the programme design, as documented, is sound and reasonable, and meet the stated requirements and identified criteria. Validation is a requirement for all CDM programmes and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

1.2 Scope

The validation scope is defined as an independent and objective review of the programme design documents, the PoA's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

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

1.3 Validation team

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

FUNCTION	NAME	CODE HOLDER*	TASK PERFORMED
Lead Verifier	Andrew Kinyanjui.	☐Yes ☒ No	☒DR ☐SV ☒RI
Verifier	George Wambua	☐Yes ☒ No	☒DR ☒SV ☐RI
Verifier	James Chirchir	☒Yes ☐ No	☒DR ☒SV ☐RI
Technical Specialist	N/A	☐Yes ☐ No	☐DR ☐SV ☐RI
Financial Specialist	N/A	☐Yes ☐ No	☐DR ☐SV ☐RI
Internal Technical Reviewer (ITR)	Tim WANG Wei	☐Yes ☒ No	☒DR ☐SV ☒RI
Specialist supporting ITR	James Mwaniki	☒Yes ☐ No	☒DR ☐SV ☐RI

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

2 METHODOLOGY

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

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual, issued by the Executive Board at its 55th meeting on 30/07/2010 and version 04.1 of Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities dated 02/08/2010(EB 55 Annex 38). The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

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

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

2.1 Review of Documents

The PoA-DD version 2.0 dated 22/11/2012 and generic CPA-DD dated 22/11/2012 submitted by Cool nrg and additional background documents related to the project design and baseline, i.e. country Law, PoA-DD form, CPA-DD form, Approved methodology, Kyoto Protocol, Clarifications on Validation Requirements to be Checked by a Designated Operational Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, Cool nrg revised the PoA-DD and generic CPA-DD and resubmitted it on 26/01/13.

The validation findings presented in this report relate to the project as described in the PoA-DD version 02 and generic CPA-DD version 02.

2.2 Follow-up Interviews

On 08-09/12/11 Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Standard Bank Plc, Cool nrg and local stakeholders were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

➢ Interviewed organization	➢ Interview topics
➢ Standard Bank	➢ Project operation ➢ Project design and operation ➢ Stakeholder consultations ➢ Prior consideration
➢ Cool nrg (Consultant)	➢ Conformity of project equipment ➢ Compliance with National Laws and Regulations ➢ Monitoring plan and management procedures ➢ Data management (QA/QC) ➢ Environmental impacts ➢ Additionality ➢ Baseline data calculations ➢ Algorithms ➢ Registration of installers ➢ Specification of CFLs ➢ Sales procedures and records ➢ Data capture and management (QA/QC) ➢ Compliance to Laws and Regulations
➢ LOCAL Stakeholders/ residents	➢ Environmental Impact management strategy ➢ Enhancement of awareness on use and handling of CFLs
➢ Environmental Journalist	➢ National Environmental Laws and Regulations ➢ Environmental impact of project activity
➢ Kenya Power and Lighting Company	➢ Baseline scenario ➢ CFLs specifications ➢ Data management (QA/QC)

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the programme design.

Corrective Action Requests (CAR) is issued, where:

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

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

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

The validation team may also use the term Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

The validation team may also raise a forward action request (FAR) during validation to identify issues related to programme implementation that require review during the first verification of the CPA uner the PoA.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

2.4 Internal Technical Review

The validation report underwent a Internal Technical Review (ITR) before requesting registration of the programme.

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

The Team Leader provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

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

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

The reviewer compiles clarification questions for the Team Leader and Validation Team and discusses these matters with Team Leader.

After the agreement of the responses on the 'Clarification Request' from the Team Leader as well as the PP(s) the finalized validation report is accepted for further processing such as uploading on the UNFCCC webpage.

3 VALIDATION CONCLUSIONS

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

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

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in **3** Corrective Action Requests (CARs) and **46** Clarification Requests (CLs).

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

The number between brackets at the end of each section correspond to the VVS paragraph

3.1 Approval

The Letter of approval from the Kenyan DNA was issued on 20/07/2012 and Zimbabwean DNA issued on 30/08/2012 to Standard Bank Plc. BVC validated host country approval by cross check of DNA for Kenya Archives; the DNA focal point for Kenya and Zimbabwe was confirmed at http://cdm.unfccc.int/DNA/index.html.

Bureau Veritas Certification received this letter of approval from Cool nrg (Consultant) and does not doubt its authenticity.

The LoAs refers to the title 'Green Light for Africa programme of activities which refers to the precise proposed CDM project activity title in the PDD being submitted for registration. The LoAs provided include clear statements on the ratification of Kyoto Protocol, voluntary participation and the contribution to host party's i.e. Kenya's and Zimbabwe's sustainable development.

Bureau Veritas Certification considers the letters are in accordance with paragraphs 45 - 48 of the VVM.

3.2 Participation

The participation for Standard Bank Plc has been approved by Party of the Kyoto Protocol i.e. Kenya and Zimbabwe vide Letter of Approval dated 20th July 2012 and 30/08/12.
The approvals for participation in the CDM project activity has been approved from the DNAs for Kenya (National Environmental Management Authority- NEMA) and Zimbabwean DNA, Ministry of Environment and Natural Resource Management, as confirmed in the link below http://cdm.unfccc.int/DNA/index.html.

3.3 Project design document

The CME has developed three Design documents as per the Guidelines for Completing the PoA Design Document (PoA-PDD), CDM programme of activities template and design document (CPA-DD) and the applied CDM methodology including the sections especially dedicated to PoA

- PoA – DD Green Light for Africa Programme of Activities version 2.0 dated 22/11/2012 (sets a framework for the implementation of the PoA and unambiguously defining a CPA under the PoA)
- CPA Generic Green Light for Africa Programme of Activities CPA-Generic (template for use by eligible CPA implementers/partners) dated 22/11/2012

The project design was described using the appropriate template (SSC-PoA-DD document version 2.0 and SSC-CPA-DD version 2.0 as shown in the DDs that were confirmed through comparison with the template listed on the UNFCCC website. Relevant information was provided by the Managing entity in the applicable PoA sections. Completeness was assessed through the protocol included in Annex 1.

As described above, BVC deems that the DDs (SSC-PoA-DD and typical SSC-CPA) are compiled with the appropriate format and are described based on appropriate tools, guidelines, and guidance which are specified and requested by the PoA procedures.

The validation team hereby confirms that the PoA-DD and generic CPA-DD comply with the latest CDM-SSC-PoA-DD form version 01 and CDM-SSC-CPA-DD form version 01 and Guidelines for completing the project design document (CDM-SSC-PDD) version 07.

3.4 PoA description

The geographical boundary of the PoA is within 2 African countries namely Kenya and Zimbabwe.

The PoA involves the replacement of incandescent lamps (ICLs) with self-ballasted compact fluorescent lamps (CFLs) amongst residential users in the afore-mentioned countries. The implementation of this PoA will achieve CO_2 emission reductions by reducing electricity consumption through the distribution and installation of CFLs which consume considerably less energy compared to similar conventional light bulbs.

This programme is purely a voluntary initiative undertaken by Standard Bank Plc, which is the CME of this PoA. There are no mandatory requirements in host parties mentioned above enforcing the use of compact florescent Lamps (CFLs)

The length of the PoA is 28 years.

The DOE hereby confirms that the project description in PDD document is accurate and complete in all respects

3.5 Operational and management arrangements

A clear and transparent description of the operational and management arrangements have been established by the management/coordinating entity and stated in the PoA-DD. The CME and consultant had been interviewed by validation team during the on-site visit. The internal management documents of the PoA have been provided by the CME, which includes CFL technology management, monitoring plan, training plan, PoA management and PoA implementation plan.

Complying with **para.166/VVM** and **EB63 Annex 3,** Bureau Veritas Certification hereby concludes that the operational and management arrangements have been established by the coordinating/managing entity and are suitable for the PoA being validated. Bureau Veritas Certification considers that the arrangements are sufficient to ensure that the coordinating/managing entity will have control of all records and information related to the implementation of individual CPAs.

3.6 Eligibility criteria for inclusion a CPA in the PoA

Validation team has assessed the eligibility criteria for inclusion a CPA in the PoA in accordance with “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

1. The geographic boundary of the SSC CPA, including anytime induced boundary, is unambiguously identified and consistent with the geographic boundary set in the PoA i.e. Kenya and Zimbabwe.

2. The CPA operator must demonstrate that double counting does not occur with the particular SSC CPA through the following

   2a CFLs utilized by the SSC CPA will marked for unique identification for the project

   2b The SSC CPA that has not been registered (either as a CDM project activity or as a CPA of another PoA)

3. Each SSC CPA will involve the distribution of Compact Fluorescent lamps (CFLs) to replace Incandescent lamps (ICLs). CFLs distributed under each SSC CPA will be compliant with all specifications under EB 54 Version 04 of AMSII.J as below

   3a The total lumen output of the CFL should be equal to or more than that of the ICL being replaced; lumen output of ICL & CFL shall be determined in accordance with relevant national or international standard/s. Values in Table 1 of the approved methodology, AMS II J, may be used as an alternative option to such standards. If a lamp wattage is not in Table 1 of the approved methodology, AMS II J, linearly interpreted value shall be used to determine the minimum light output requirements.

   3b The average life or the rated average life of the CFLs shall be known ex ante. IEC 60969 (Self Ballasted Lamps For General Lighting Services - Performance Requirements) or an equivalent national standard shall be used to determine the average life. The project design document shall cite the standard used. If the average life value is not available ex ante, it shall be made available for verification before or at the same time that the results of the second ex post monitoring survey, as required per paragraph 18 (b) of the methodology*, are available for verification. The laboratory conducting and certifying the tests to determine CFL average life shall comply with the requirements of a relevant national or international standard such as ISO/IEC 17025

4. The start date of the SSC-CPA will not be prior to 25/10/2011 i.e. the date on which the SSC-PoA-DD was for the first time published for global stakeholder consultation. For CPAs applying for inclusion in the PoA, this may be the date when the first procurement contract is signed or the date when the CFL installation starts. CPA implementers must present official documentation describing above activities to serve as evidence. The proposed SSC_CPA is not registered, or is being registered, as a standalone CDM project outside of the Green Light for Africa Program.

5. Each proposed SSC-CPA follows EB 54 Version 04 of AMSII.J “Demand-side activities for efficient lighting technologies”CFLs to be distributed are compliant with AMS II.J/Version 4.

6. The SSC CPA implementer will undertake local stakeholder consultation and environmental analysis.

7. Where Public Funding is accessed, SSC CPA implementer will provide affirmation in the SSC-CPA DD that this funding does not result in a diversion of official development assistance The SSC-CPA is approved by a DOE as part of the inclusion process.

8. CFL distribution, exchange and destruction eligibility criteria involves

   8a Each proposed SSC-CPAs will involve the distribution of CFLs targeting grid connected residential households.

8b Each SSC-CPA will ensure that replaced ICLs are exchanged and destroyed as per the existing host country specific procedures.

8c The CPA implementers will undertake at least one of the actions described in paragraph 7 of version 4 of AMSII.J on the CFL distribution mechanism.

8d CPA implementers will define actions to be taken to encourage CFLs being installed in locations within the residences where the utilization hours are relatively high, for example common areas. For CFLs not directly installed these actions can include educating the CFL recipients of the best uses for CFLs.

9. The CPA shall follow the guidelines in the latest version of the Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities.
10. The aggregate electricity savings by a single project activity may not exceed the equivalent of 60 GWh per year. Each CPA will demonstrate through Emission reduction calculations that single project activity doesn't exceed the equivalent 60 GWh per year.
11. The SSC CPA is not a de-bundled component of a large-scale project activity in accordance with the latest approved version of the Guidelines on assessment of de-bundling for SSC project activities.
12. The CME shall approve the participation of the CPA in the PoA.

Validation team confirms that:

The eligibility criteria are verifiable

The eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

Complying with **Para.167/VVM,** Bureau Veritas Certification hereby confirms that the specified eligibility criteria in the PoA-DD are sufficient to ensure that all CPAs would comply with the CDM requirement applicable to the PoA, which includes the means of demonstrating the additionality of the CPA and the applicability of the applied methodology

3.7 Baseline and monitoring methodology

3.7.1 Applicability of the selected baseline and monitoring methodology

According to the PoA-DD, the CPA under the PoA will apply the approved small scale methodology AMS II J “Demand side energy efficiency activities for specific technologies” version 4.

As set out in the fifth eligibility criteria for inclusion of a CPA into the PoA(section A.4.2.2 of PoA DD), all the CPAs shall satisfies all applicability and other requirements set out in the methodology which includes condition that an SSC-CPA comprises activities that encourage the replacement of incandescent lamps (ICLs) with Compact Fluorescent lamps in grid-connected residential households; and for each replaced ICL, the total lumen output of the CFL should be equal to or more than that of the ICL being replaced among other conditions

3.7.2 Baseline identification

According to methodology, AMS II J, the baseline scenario is identified at PoA level properly as:

The use of incandescent lamps (ICLs) for lighting in households with increased electricity consumptions and associated GHG emissions

There are no mandatory requirements in the host parties enforcing the replacement of ICLs with CFLs for lighting in households.

The DOE validation team additionally performed a site visit and conducted interviews with various stakeholders to validate the baseline scenario and to cross check the information provided in the PoA-DD.

Complying with **Para. 87 and 88/VVM**, Bureau Veritas Certification hereby confirms that:

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

(b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the design documents;

(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 sector policies and circumstances are considered and listed in the design documents;

(e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

3.7.3 Algorithms and/or formulae used to determine emission reductions

The emission reductions generated by the Project were calculated in accordance with the methodology AMS-II J.

The validation team hereby confirms that:

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

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

(c) All values used in the PoA-DD are considered reasonable in the context of the proposed CDM project activity;

(d) The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

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

3.8 Additionality of PoA

3.8.1 Start date of the PoA/CPA

The 4th eligibility criteria for the start date have been set as "the start date of the SSC-CPA is not before 25/10/11".

Bureau Veritas Certification confirms that the eligibility criteria for the start date of any CPA, has been defined correctly, which is the date of the CDM-PoA-DD, is first published for global stakeholder consultation.

3.8.2 Demonstration of additionality of the PoA as a whole

The additionality of the project was done at the PoA & CPA level

According to the Guidelines on the demonstration of additionality of small-scale project activities version 09.0. EB 68 Annex 27 paragraph 2 (c), the positive list of technologies and project types that do not need documentation of barrier analysis as follows:

"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.

The project activity falls within this category as the CFLs energy savings do not surpass the 5% threshold set for the small scale CDM threshold.

Validation team has assessed the additionality of a PoA in accordance with Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities and confirms that none of the implemented CPA would occur in the absence of CDM.

3.8.3 Investment Analysis

The DOE confirms that investment analysis was not used by the project participant since additionality of the project was done using the Guidelines on the demonstration of additionality of small-scale project activities version 09.0. EB 68 Annex 27.

3.9 Monitoring plan

The CME has opted for verification of each CPA by DOE. Monitoring plan for each CPA will be developed according to the applied baseline and monitoring methodologies. The transparent system will be developed for monitoring, data collection and storage at PoA and CPA level.

The steps taken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the programme design.

The ex-post monitoring methods, frequency of monitoring and measurement equipment for project parameters as described in the project's design documents are acceptable to methodology AMS II J version 4.0. Monitoring information will be done both at the PoA and CPA level.

The projects parameters identified to be monitored ex-post for the first CPA and subsequent CPAs included;

a) Number of CFLs distributed
b) Lumen Output Equivalence
c) Rated power of the baseline ICLs replaced
d) Rated Average Life of CFLs
e) Unambiguous identification of the recipient of the equipment
f) Technical grid losses
g) Operating hours
h) Technical grid losses
i) Net-to-gross adjustment factor
j) Lamp failure rate

Data will be monitored by CME by undertaking periodic ex post monitoring surveys. These surveys will be undertaken in accordance with the survey design, determining number of CFLs placed in service and operating under the project activity during each monitoring period.

The validation team hereby confirms that the monitoring plan complies with the requirements of the methodology.

A sampling plan has been chosen and included in the PoA-DD to comply with para 7 of "Standard for sampling and surveys for CDM project Activities and programme of activities (EB 69 Annex 4) and discussed in Annex 4 of PoA-DD.
The sampling objective provided in the PoA-DD is to obtain a statistically robust estimate of key variables used in calculation of Emission Reductions, specifically; the Lamp Failure Rate used in the calculations of greenhouse gas emission reductions.
The sampling will be conducted at the CPA level; each CPA under the PoA will be sampled individually in order to obtain the lamp failure rate. The data collected will consist of identifying and recording the number of CFLs, marked with clear unique identification as part of the PoA, that are installed and operating in households participating in the SSC-CPA. Only CFLs with original markings will be counted. These arrangements are in accordance with the applied methodology, AMS II J para 17c
The Lamp failure rate for the monitoring period has been calculated with a 90/10 confidence/precision as per paragraph 10 of the Standard for sampling and surveys for CDM project Activities and programme of activities (EB 69 Annex 4) and para 20 of the applied methodology, AMS II J.
The sampling method will be simple random sampling of the households that have participated in the SSC CPA by an outsourced third party expert. The first survey will be conducted within the first year after installation of project CFLs. Subsequent surveys will be carried out a minimum of once every 3 years.
In calculation of the sample sizes, the DOE determined that the proposed sampling plan has provided parameter value estimates in unbiased and reliable manner in accordance with para 21 of the Standard for sampling and surveys for CDM project Activities and programme of activities (EB 69 Annex 4) as below:

- The formula used in calculation of the simple random sampling sample size provided in the PoA-DD is consistent with the approximate equation provided in the guideline for sampling and surveys for CDM project activities and programme of activities (EB 69 Annex 5) para 56.

- The expected proportion, p, in the formula, had been chosen and calculated by the PP from the lamp failure rate in accordance with para 11 (a) of the Standard for sampling

and surveys for CDM project activities and programme of activities thus the larger proportion i.e. CFLs in operation during the monitoring period and survey has been adopted for calculation of the sample sizes.

- The parameters and values for the first CPA have been validated as follows in accordance with para 24 of the Standard for sampling and surveys for CDM project Activities and programme of activities (EB 69 Annex 4) as below:

Parameter	**Value**	**Means of validation**
p, expected proportion for year 1	0.9574	The LFR value from the ex-ante ER calculator was cross checked with the value provided in the PDD and it was noted the larger proportion was chosen i.e. between 0.0426 & 0.9574;(1-p) and was consistent
p, expected proportion for year 4	0.8297	The LFR value from the ex-ante ER calculator was cross checked with the value provided in the PDD and it was noted the larger proportion was chosen i.e. between 0.0.1703 & 0.8297;(1-p) and was consistent
p, expected proportion for year 7	0.7019	The LFR value from the ex-ante ER calculator was cross checked with the value provided in the PDD and it was noted the larger proportion was chosen i.e. between 0.2981 & 0.7019;(1-p) and was consistent
p, expected proportion for years 10	0.5742	The LFR value from the ex-ante ER calculator was cross checked with the value provided in the PDD and it was noted the larger proportion was chosen i.e. between 0.4258 & 0.0.5742;(1-p) and was consistent
n, sample size for year 1 & year 4	100	Based on calculations for sample size for year 1 & year 4 were below 100 required by the applied methodology, AMS II J para 20, i.e. 12.04 & 55.54 respectively. Therefore the prescribed minimum is 100 which is consistent with value provided in the PDD
n, sample size for year 7	115	The DOE recalculated the sample size based on the PPs values and guideline to realize a value of 114.93 which was rounded-up and noted to be consistent with value provided in the PDD and is in accordance with approved methodology, AMS II J para 20
n, sample size for year 10	201	The DOE recalculated the sample size based on the PPs values and realized a value of 200.67 which is greater than the 100 prescribed by the approved methodology, AMS II J para 20

Sample sizes for the first CPA above have been determined as per EB 69 annex 4 and annex 5 providing sample sizes of atleast 100 households (for year 1 & year 2), 115 households (for year 7) and 201 households (for year 10) for each of the surveys.

The formula applied were reviewed by the DOE is deemed correct and the resulting sample size is adequate to meet the minimum confidence and precision requirements required by the approved methodology, and the DOE was able to reproduce the proposed sample sizes in accordance with EB 69 annex 4 para 21.

The arrangements for data measurements, administration of data collection and analysis of project data has been defined are deemed adequate. Monitoring and data collections will be outsourced to an expert third party service provider approved by the CME who will oversee the collection and analysis of the data collected. The sampling plan arrangement described in the PDD is acceptable to the DOE and is in accordance to Standard for sampling and surveys for CDM project activities and programme of activities (EB 69 annex 4) para 21b

During the site visit, the DOE conducted desk top review and interview with the PP, the DOE confirms the monitoring arrangements as adequate.

The validation team concludes that selected parameters, monitoring methods and frequencies, and measurement equipment were in line with the methodology applied the Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities respectively.

The DOE hereby confirms that the monitoring plan complies with the requirements of the methodology and that the project participants are able to implement the monitoring plan.

3.10 Environmental impacts

The CME will undertake an analysis of environmental impacts at CPA level.

3.11 Local stakeholder consultation

The CME will undertake the local stakeholder consultation at CPA level.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PoA-DD using methodology AMS II J ver.4 was webhosted on the UNFCCC for global stakeholders' comments as per CDM requirements. The programme was webhosted from 25 Oct 11 - 23 Nov 11 confirmed at :

http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/3KXKIO1DBBFUYTG8FTNDMP8WBF111G/view.html

No comments were received.

5 VALIDATION OPINION

Bureau Veritas Certification has performed a validation of the Green Light for Africa programme of activities in Nairobi Kenya. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

Project participants employed the Guidelines on the demonstration of additionality of small-scale project activities version 09.0 EB 68 Annex 27 paragraph 2 (c), on the positive list of technologies and project types that do not need documentation of barrier analysis. In line with this guideline, the PDD provides provide an explanation to show that the small scale project activity falls within the positive list of technologies that are deemed additional.

By synthetic description of the project, the project is likely to result in reductions of GHG emission. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve emission reductions.

The review of the project design documentation version 2.0 (PoA-DD) and version 2.0 (CPA-DD generic) both dated 22/11/2012 and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests registration of 'Green Light for Africa' Programme of Activities as CDM project activity.

6 REFERENCES

Category 1 Documents:
Documents provided by Standard Bank Plc and Cool nrg

/1/ PoA- DD version 2.0 dated 22/11/2012
/2/ PoA-DD Webhosted dated 11.10.2011
/3/ CPA-DD generic webhosted 11.10.2011
/4/ CPA-DD generic dated 22/11/2012
/5/ LoA for Kenya
/6/ Integrated assessment of the Energy policy, UNEP (2006)
/7/ Kenya Vision 2030, Republic of Kenya
/8/ Least cost development plan, Ministry of Energy Kenya (2011)
/9/ Medium Term plan 2010-2015, Zimbabwe Ministry of Energy and Power development (2009)
/10/ The world bank, Large scale residential energy efficiency programs based on CLFs (2009)
/11/ LoA Zimbabwe

Category 2 Documents:
Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/ AMS II J ver.4, Demand-side activities for efficient lighting technologies
/2/ Guidelines on the demonstration of additionality of small-scale project activities", Version 09.0, Annex 27 EB 68
/3/ Standard for the Development of Eligibility Criteria for the Inclusion of a Project Activity as a CPA under the PoA Version 01
/4/ Guidelines for Assessment of De-bundling for SSC Project Activities (Version 3) EB 54, Annex 13
/5/ Guidelines for completing the programme design document form for small-scale CDM programmes of activities EB 67 annex 30
/6/ Guidelines for Completing the PoA Design Document (PoA-PDD), CDM programme of activities template and design document (CPA-DD)
/7/ Guidelines for Sampling for CDM Project Activities and Programme of Activities EB 69 annex 5
/8/ Standard for sampling and surveys for CDM project activities and programme of activities EB 69 Annex 4

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

/1/ Bernard Gakuha – Cool nrg (Consultant)
/2/ Gabrielle Henry – Cool nrg (Consultant)
/3/ Peter Mathenge – Standard Bank plc, CME
/4/ Steve Mbogo - Climate change/ Environmental Journalist
/5/ Margaret Kanini - Kenya Power and Lighting Company

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7 CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Bureau Veritas Certification - team leader – Andrew Kinyanjui

Graduated with Diploma in Chemical Engineering, he had 5 yrs experience in Industrial production before joining BV. He has obtained 7 years experience in management systems audits and training and three years experience in CDM validation / verification at BV. He obtained the certificate of CDM Lead Verifier certificate and Lead auditor for ISO 14001 He conducted Validation / Verification for more than 10 CDM/GS Projects.

Bureau Veritas Certification - team member – James Chirchir

He has a degree in Chemical engineering and has had 4 years experience in manufacturing industry before joining BV. He is an experienced management systems Lead auditor on EMS & QMS and has been trained on CDM Lead verifier course and Energy Management system course. He has conducted validation/verification of more than 5 CDM/GS projects.

Bureau Veritias Certification- Team member – George Wambua

This is a Lead auditor in management system with 5 years experience; covering EMS and QMS. He is also been trained on the CDM verifier and Energy management system courses. Before joining BV he had been working for a manufacturing and consultancy companies for 3 years. He has conducted atleast 5 CDM projects.

Internal Technical Reviewer – Tim WANG Wei

He holds a Master Degree in Environmental Science. Before joining BV in Feb.2009, he gained 4 and a half years of working experience in engineering and EIA for manufacturing enterprise in P.R. China. He obtained the certificates of CDM Lead Verifier and ISO14001 Lead Auditor in Bureau Veritas and received training in ISO 14064.

Specialist supporting ITR – James Mwaniki

Graduate in Electrical Engineering with over 25 years of experience power generation and energy demand and distribution as well as in energy management audits. He is the technical expert & supported this Validation.

APPENDIX A: COMPANY CDM PROGRAMME VALIDATION PROTOCOL

Table 1 Validation requirements based on the Validation and Verification Standard (EB65 Annex 4)

CHECKLIST QUESTION	**Ref.**	**§**	**COMMENTS**				**Draft Concl**	**Final Concl**
1. Approval			*COUNTRY A (Kenya)*	*COUNTRY C (Zimbabwe)*				
1.1. Have all Parties involved approved the project activity?	VVM	44	Letter of Approval provided ref NEMA/10/3/ VOL.IX dated 20th July, 2012.	Letter of Approval provided ref NRB/53 dated 30/08/12			~~CAR 01~~	Ok
1.2. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a writTen letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participatn or directly from the DNA)	VVM	45	Yes, the letter of approval from Kenya DNA has been received from the PP's consultant, Coolnrg	Yes, the letter of approval from Zimbabwe DNA has been received from the PP's consultant			~~Pending CAR 01~~	Ok
1.3. Does the letter of approval from DNA of	VVM	45	"					

CHECKLIST QUESTION	Ref.	§	COMMENTS				Draft Concl	Final Concl
each Party involved:								
1.3.1. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	Yes	Yes			Ok	Ok
1.3.2. confirm that participation is voluntary?	VVM	45.b	Yes	Yes			Ok	Ok
1.3.3. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	VVM	45.c	Yes					
1.3.4. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	Yes, the letter refers to the title as Green light for Africa Programme of Activities	Yes, the letter refers to the title as Green light for Africa Programme of Activities			Ok	Ok
1.4. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	Yes	yes			Ok	Ok
1.5. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	Yes, the LoA issued by DNA Kenya and is valid for the CDM project activity	Yes, the LoA issued by DNA Zimbabwe and is valid for the CDM project activity			Ok	Ok
1.6. Is there doubt with respect to the	VVM	48	No, there is no doubt				Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
authenticity of the letter of approval?					
1.7. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	Not applicable		
2. Participation			*PP1 (Standard Bank Plc)*		
2.1. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	Yes as CME	Ok	Ok
2.2. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	Yes, the participation of the PP has been approved by Kenya and Zimbabwe	Ok	Ok
2.3. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	The PPs have not been listed in tabular form in section A.3 of the PDD	~~CL 01~~	Ok
2.4. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VVM	52	~~Pending CL above~~		
2.5. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the approval document for each of the project participants)	VVM	52	The participation of the project participants has been approved by Kenya through a letter of approval ref NEMA/10/3/VOL.IX dated 20th July, 2012 and Zimbabwe vide LoA ref NRB/53 dated 30/08/12	Ok	Ok
2.6. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	No	Ok	Ok
2.7. Has the approval of participation issued from the relevant DNA?	VVM	53	Yes, the LoA has been issued from NEMA, the DNA in Kenya and Ministry of Environment and natural resources management	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
2.8. Is there doubt with respect to (g) above? l	VVM	53	No		Ok	Ok
2.9. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VVM	53	Not applicable			
3. Project designdocument						
3.1. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	The CDM SSC-PoA-DD - Version 01 and CDM-SSC-CPA-DD) - Version 01, versions provided by CDM EB		Ok	Ok
3.2. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	Yes, the PDD is in accordance with the applicable CDM requirements for completing the PDD		Ok	Ok
3.3. Specific questions for PoA-DD			http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html			
3.4. Title of project			Green light for Africa		Ok	Ok
3.5. Current version number and date of document			PoA-DD - version number and date not provided		~~CL 02~~	Ok
4. Project description						
4.1. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	VVM	58	The Green Light for Africa involves the replacement of incandescent lamps (ICLs) with self-ballasted compact fluorescent lamps (CFLs) amongst residential users in Kenya and Zimbabwe.			

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Energy ministries and power companies in all countries included in the Green Light for Africa Program recognise the value of energy efficiency and have policies and/or campaigns in place to encourage consumers to use energy efficiently. The Green Light for Africa Program is consistent with and supports host country energy efficiency policies. ~~Please provide the appropriate host-specific policies and or campaigns~~	~~CL 03~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.2. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59			
4.2.1. sufficiently covering all relevant elements?	VVM	59	The following will need clarifications in terms of responsibility within the project activity as they are not clear from the description provided: - the reconciliation of ICLs - data collection, input and verification for accuracy - storage and management of data in soft and hard copies	~~CL 04~~	Ok
			The version of guidelines on assessment of de-bundling for ssc project activities not the latest provided by the CDM EB	~~CL 39~~	Ok
			The expected operational lifetime of the small-scale CPA and start of the crediting period reported as 10 years and 01/04/2010 respectively; but basis not mentioned in the PDD.	~~CL 05~~	Ok
			The CFL wattage equivalent to a 200W ICL is 40 W sourced from PoA 3223, but its not clear from which specific section of this project its sourced from	~~CL 06~~	Ok
4.2.2. acurate?	VVM	59	~~Pending above CLs~~	Ok	OK
4.2.3. providing the reader with a clear understanding of the nature of the proposed	VVM	59	Yes, the description provides the reader with a clear understanding of the project activity	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
CDM project activity?					
4.2.4. Are there any changes/modifications compared to the webhosted PDD?	VVM	59	No	Ok	Ok
4.3. Is the proposed CDM project activity in existing facilities or utilizing existing equipments?	VVM	60	Are new equipment and not transferred from another activity	Ok	Ok
4.4. Is the CDM project activity one of the following types:	VVM	60			
4.4.1. Large scale?	VVM	60	No	Ok	Ok
4.4.2. Non-bundled small scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60	The SSC project with estimated annual ER of 26,513 tonnes CO_2e which exceeds 15,000 tonnes per year In Table 1 include the crediting period and actual years instead of year 1, 2…	~~CL 07~~	Ok
4.4.3. Bundled small scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60	No	Ok	Ok
4.5. If yes to (c) and (d) above, was a physical site inspection conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?	VVM	60	A physical site inspection was conducted on 08-09/12/11	Ok	Ok
4.6. If yes to (d.iii) above, was the number of physical site visits base on samping?	VVM	60	No	Ok	Ok
4.7. If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	No	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.8. For other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	Not applicable	-	-
4.9. For all other proposed CDM project activities not referred to in paragraphs 59 – 61, and for other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	62	Not applicable	-	-
4.10. If no, was it appropriately justified?	VVM	62	Not applicable	-	-
4.11. Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	No, project involves replacement of lighting equipment	Ok	Ok
4.12. If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	Not applicable	-	-
5. Baseline and monitoring methodology					
5.1. General requirement					
a. Do the the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	The methodology employed AMS II J version 4 Valid from 11 Jun 10 onwards The Emission Factor (*EF*) is calculated in accordance with provisions under AMS-I.D/ Version 17, and the "Tool to calculate the emission factor of an electricity system", Version 02.2.1	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Is the selected methodology applicable to the project activity?	VVM	66	Refer to (5.b.a) below	-	-
c. Had the PP correctly applied the selected methodology?	VVM	66	Refer to (5.b.d) below	-	-
d. Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	Refer to (5.c) below	-	-
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Refer to (5.d) below	-	-
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	Refer to (5.e) below	-	-
g. Had the selected methodology been correctly applied with respect to additionality?	VVM	67	Refer to 6 below	-	-
5.1.1. Specific questions per methodology regarding application of the methodology with respect to additionality.					
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67	Refer to 7 below	-	-
i. Specific questions per methodology regarding application of the methodology with respect to monitoring methodology.			See 7 Below	-	-
5.2. Applicability of the selected methodology to the project activity					
i. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity	VVM	68	The methodology employed AMS II J version 4 Valid from 11 Jun 2010 onwards	Ok	Ok

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	including that the used version is valid?					
	5.2.1. Specific questions per methodology regarding applicability.			See below		
	5.2.2. Activities that lead to efficient use of electricity through the adoption of self-ballasted compact fluorescent lamps (CFLs) to replace incandescent lamps (ICLs) in residential applications.	AMS	II J	Yes, project activity leads to efficient use of electricity through replacement of ICLs with CFLs	Ok	Ok
	5.2.3. Eligible self-ballasted CFLs have ballasts integrated to the lamp as a non-removable part. The CFLs adopted to replace existing equipment must be new equipment not transferred from another activity	AMS	II J	The CFLs have a non-removable part integrated into the lamp and the CFLs are new equipment	Ok	Ok
	5.2.4. The total lumen output of the CFL should be equal to or more than that of the ICL being replaced; lumen output of ICL & CFL shall be determined in accordance with relevant national or international standard/s	AMS	II J	The total lumen output determined in accordance to the methodology	Ok	Ok
	5.2.5. The aggregate electricity savings by a CPA will not exceed the small scale limit of 60 GWh per year	AMS	II J	The eligbility criteria has been set at energy savings of not more than 60 GWh/year	Ok	Ok
ii.	Has the DOE applied specific guidance provided by the CDM Executive Board in respect to the applicable approved methodology?	VVM	69	Yes, CDM methodology booklet pg 143	Ok	Ok
iii.	Is the methodology correctly quoted?	VVM	70	Yes, AMS II J version 4		
iv.	Are the applicability conditions of the	VVM	71	It's has been demonstrated how the SSC-CPA meets	~~CAR~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
methodology met?			the applicability conditions under section E.2	~~02~~	
5.2.6. Specific questions per methodology regarding applicability conditions.			See below	-	-
5.2.7. The rated average life of the CFLs shall be known ex ante. IEC 60969 or an equivalent national standard shall be used to determine the average life. The project design document shall cite the standard used. If the average life value is not available ex ante, it shall be made available for verification before or at the same time that the results of the second ex post monitoring survey are available for verification. The laboratory conducting and certifying the tests to determine CFL average life shall comply with the requirements of a relevant national or international standard	AMS	II J	The rated average life of the CFLs is known ex-ante at 15,000hours as per KPLC specifications	Ok	Ok
5.2.8. CFLs utilised under the project activity will, in addition to the standard lamp specifications, be marked for clear unique identification for the project	AMS	II J	The bulb will possess unique identification as cited in the PDD	Ok	Ok
5.2.9. The SSC-CPA design document explains the proposed method of distribution of efficient lighting equipment and how ICL collection and destruction will be conducted and documented. The Project design document shall also explain how the proposed procedures eliminate double	AMS	II J	The PDD has provided the distribution of bulbs via KPLC staff and appointed agents	Ok	Ok

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	counting of Emission Reductions					
	5.2.10. The project activity will ensure that replaced ICLs are exchanged and destroyed and will undertake at least one of the following actions: i. Directly installing the CFLs; ii. Charging at least a minimal price* for efficient lighting equipment; iii. Restricting the number of lamps per household distributed through the project activity to six	AMS	II J	The KPLC staff or their suitably-qualified agents will collect the ICLs exchanged prior to appropriate destruction and verification by independent third party	Ok	Ok
	5.2.11. Whether the CFLs are directly installed or not directly installed, the project design document will define actions to be taken to encourage CFLs being installed in locations within the residences where the utilisation hours are relatively high. For CFLs not directly installed these actions may include educating the CFL recipients of the best uses for CFLs	AMS	II J	Yes procedures for handling direct and indirect installations have been described in the PDD	Ok	Ok
v.	Is the project activity expected to result in emissions other than those allowed by the methodology?	VVM	71	No	Ok	Ok
vi.	Is the choice of the methodology justified?	VVM	71	Yes, the choice of the methodology not demonstrated in the PoA-DD.	~~CAR 03~~	Ok

* *For example cost equivalent of an incandescent lamp being replaced.*

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
vii. Have the project participants shown that the project activity meets each of the applicability conditions of the approved methodology?	VVM	71	Refer to (5.b.d) above	-	-
viii. Have the project participants shown that the project activity meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	71	Yes, the PP has demonstrated that the project activity meets the applicability conditions of the methodologies and tools	Ok	Ok
i. Specific questions per methodology regarding applicability conditions of any tool or other methodology component referred to the methodology.				-	-
ii. Calculation of emission factor as per AMS I D				-	-
1. The Emission Factor can be calculated in a transparent and conservative manner as follows: (a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the 'Tool to calculate the Emission Factor for an electricity system'. OR	AMS	I D	Combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the 'Tool to calculate the Emission Factor for an electricity system	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
(b) The weighted average emissions (in t CO2e/MWh) of the current generation mix. The data of the year in which project generation occurs must be used. (c) Calculations must be based on data from an official source (where available) and made publicly available					
iii. Tool to calculate the Emission Factor for an electricity system					
1. Version applied?			Tool to calculate the Emission Factor for an electricity system version 02.2.1	Ok	Ok
2. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid.			Yes, tool has been applied to estimate the OM, BM and CM	Ok	Ok

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ix.	Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the PDD?	VVM	71	No	Ok	Ok
x.	If yes, was the PDD cross checked against the other sources to confirm that the project activity meets the applicability conditions of the methodology? (provide the reference to these choices)	VVM	71	Not applicable	-	-
xi.	Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	72	Yes determination regarding the applicability of AMS IIJ to the project activity has been made	Ok	Ok
xii.	If no, clarification of the methodoloy was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	Not applicable	-	-
xiii.	If answer to (5.b.d) above is “no”, revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	73	Not applicable	-	-
xiv.	If yes to (5.b.l) and (5.b.m) above, a request for registration was submited before the CDM Executive Board has approved the proposed deviation or revision?	VVM	74	Not applicable	-	-
	5.3. Project boundary					
a.	Does the PDD correctly describe the project boundary, including the physical delineation of	VVM	78	Yes As described in the PDD, the SSC-CPA boundary is the physical, geographic location of each	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity?			measure (each CFL) installed. Information identifying this boundary will be recorded in the record keeping system associated with this SSC-CPA and in the PoA CME's project database.		
5.3.1. Specific questions per methodology regarding application of the methodology with respect to project boundary.			See below	-	-
5.3.2. Is the project boundary the physical, geographical location of each measure (each CFL) installed.	AMS	II J	Yes, The first SSC-CPA will be located in Kenya while other CPAs in the other participating countries i.e. Uganda and Zimbabwe	Ok	Ok
b. Is the delineation in the PDD of the project boundary correct?	VVM	79	Yes the delineation of the project boundary is correct, described as the physical, geographic location of each measure (each CFL) installed	Ok	Ok
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	79	Yes the delineation in the PDD of the project boundary is the physical, geographic location of each measure (each CFL) installed and the baseline is use of ICLs for lighting in grid connected households.	Ok	Ok
d. Have changes been made to the project boundary in comparison to the webhosted PDD. If yes please comment on the reason for the changes.	VVM	79	No	Ok	Ok
e. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	79	Yes, the sources and gases and GHGs (CO2) have been included within the project boundary. Under section B.4 of CPA-DD, provide specific references for information on KENGEN	~~CL 08~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
f. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	79	No, AMS II J does not allow project participants to choose whether a source of gas is to be included within the project boundary	Ok	Ok
g. If yes, have the project participants justified that choice?	VVM	79	Not applicable	-	-
h. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	79	Not applicable	-	-
5.4. Baseline identification					
a. Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?	VVM	81	The PDD has identified the baseline for the proposed CDM project activity as, continued use of ICLs by households, that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity	Ok	Ok
b. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	82	Yes the methodology, AMS II J, identifies the baseline scenario as incandescent lamps are used for lighting in households with the PP identifying the most likely scenario, in absence of this PoA, is continued use of ICLs by households	Ok	Ok
5.4.1. Specific questions per methodology regarding application of any procedure contained in the methodology to identify the most reasonable baseline scenario.					
5.4.2. Has the baseline scenario been identified	AMS	II J	Yes the Baseline scenario identified in the PDD most	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
as incandescent lamps are used for lighting in households			likely scenario, in absence of this PoA, is continued use of ICLs by households		
c. Does the selected methodology require use of tools (such as the "Tool for the demonstration and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality") to establish the baseline scenario?	VVM	82	No	Ok	Ok
d. If yes, was the methodology consulted on the application of thes tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	82	Not applicable	-	-
i. Specific questions per methodology regarding application of tools to establish the most reasonable baseline scenario.			Not applicable	-	-
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	AMS II J does not require the identification of alternatives	~~CL 09~~	Ok
f. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	83	Not applicable	-	-
g. Has any reasonable alternative scenario been excluded?	VVM	83	Not applicable	-	-
h. Is the baseline scenario identified reasonably supported by:	VVM	84	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Assumptions?	VVM	84	Yes, Number of bulbs to be distributed, 870000	Ok	Ok
ii. Calculations?	VVM	84	Yes, Consolidated CFLs distributed and baseline and project lamp wattages	Ok	Ok
iii. Rationales?	VVM	84	Yes, The World Bank, "Large-Scale Residential Energy Efficiency Programs based on CFLs" (2009) The World Bank ESMAP, Case Study Uganda Compact Fluorescent Program	~~CL 10~~	Ok
i. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VVM	84	Foot notes 12, 15, 16, 19 report not provided and specific area not quoted Foot notes 13, 17 report not provided and specific area not quoted Foot note 14 link not specific Foot note 18 link not specific	~~CL 11~~	Ok
j. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	84			
k. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85	Yes, all applicable CDM requirements have been taken into account	Ok	Ok
l. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the	VVM	85	Relevant policies and circumstances have not been identified in the PoA & CPA-DDs	~~CL 12~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
CDM Executive Board?					
m. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	86	Yes, continued use of ICLs in the households has been identified as the baseline scenario in the absence of the project activity	Ok	Ok
5.5. Algorithms and/or formulae used to determine emission reductions					
a. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring?	VVM	89	Yes, the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of AMS IIJ	Ok	Ok
b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	90	Yes, the equation and parameters have been applied correctly	Ok	Ok
5.5.1. Specific questions per methodology regarding steps taken and equations and parameters applied to calculate project emissions, baseline emissions, leakage and emission reductions.			See below	-	-
5.5.2. Is ER calculated as ex-ante $ER_y = NES_y \times EF_{CO2,ELEC,y}$	AMS	II J	Yes ER calculated as $ER_y = NES_y \times EF_{CO2,ELEC,y}$	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.5.3. Has the emission factor been calucuated in accordance with AMS I D	AMS	II J	Yes, the emission factor has been calculated as per AMS I D vesrion 17	Ok	Ok
5.5.4. Is the Emission Factor calculated in a transparent and conservative manner as follows: (a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the .Tool to calculate the Emission Factor for an electricity system.. OR (b) The weighted average emissions (in t CO2/MWh) of the current generation mix. The data of the year in which project generation occurs must be used. Calculations shall be based on data from an official source (where available) and made publicly available	AMS	I D	The option selected not mentioned in the PDD	~~CL 13~~	Ok
5.5.5. Tool to calculate the emission factor of an electricity system			See below		
5.5.6. Is the version the latest provided by the CDM-EB			Yes, *version 02.2.1 of the Tool to calculate the emission factor for an electricity system* is the latest provided by the CDM EB	Ok	Ok
5.5.7. Have the six steps been followed:			The national grid emission factor for Kenya has been calculated using a UN-accredited calculator reserved by KPLC		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			The spread sheets/calculations for baseline, GEF not provided	~~CL 41~~	Ok
STEP 1. Identify the relevant electricity systems;			Electricity is imported from the Ugandan grid via 132 kV transmission line. However, the Ugandan grid is not described as a connected electricity system based on the following arguments: • There are no spot markets along the Kenyan and Ugandan electricity system • The transmission line is not operated at 90% of its rated capacity during 90% or more of the hours of the year Please clarify the source of information	~~CL 14~~	Ok
STEP 2. Choose whether to include off-grid power plants in the project electricity system (optional);			The project activity has selected Option I where only grid power plants are included in the calculation		
STEP 3. Select a method to determine the operating margin (OM);			The project activity applies Dispatch data analysis OM method based on the following reasons: • Hourly generation data is available from the KPLC's dispatch center; • Off-grid power plants are not included in the project electricity system; • KPLC provides an accredited tool that uses		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			dispatch data		
STEP 4. Calculate the operating margin emission factor according to the selected method; $$EF_{grid,OM-DD,y} = \frac{\sum_h EG_{PJ,h} \cdot EF_{EL,DD,h}}{EG_{PJ,y}}$$ Determination of $EF_{EL,m,y}$ as $$EF_{EL,m,y} = \frac{\sum_i FC_{i,m,y} \cdot NCV_{i,y} \cdot EF_{CO2,i,y}}{EG_{m,y}}$$			Yes, $$EF_{grid,OM-DD,y} = \frac{\sum_h EG_{PJ,h} \cdot EF_{EL,DD,h}}{EG_{PJ,y}}$$ Option A1 has been selected to calculate $EF_{EL,m,y}$ Yes and calculated as $$EF_{EL,m,y} = \frac{\sum_i FC_{i,m,y} \cdot NCV_{i,y} \cdot EF_{CO2,i,y}}{EG_{m,y}}$$		
STEP 5. Calculate the build margin (BM) emission factor;			The build margin emission factor is calculated *ex ante* based on data for 2010 which is the most recent year. This corresponds to provisions of the tool under **Option 1** on vintage of data		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
$EF_{grid,BM,y} = \frac{\sum_m EG_{m,y} \times EF_{EL,m,y}}{\sum_m EG_{m,y}}$ STEP 6. Calculate the combined margin (CM) emission factor The calculation of the combined margin (CM) emission factor (*EFgrid,CM,y*) is based on one of the following methods: (a) Weighted average CM; or (b) Simplified CM. For weighted average CM, is it calculated as			$EF_{grid,BM,y} = \frac{\sum_m EG_{m,y} \times EF_{EL,m,y}}{\sum_m EG_{m,y}}$ The calculation of the combined margin (CM) emission factor ($EF_{grid,CM,y}$) is based on a weighted average CM Yes, calculated as		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
$EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$ Has the following default values should be used for W_{OM} and W_{BM} : W_{OM} = 0.5 and W_{BM} = 0.5 for the first crediting period.			$EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$ Yes default values w_{OM} = 0.5 and w_{BM} = 0.5 for the first crediting period have been used		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.5.8. Determination of set of grid power plants			It is not clear how the Project Participant (PP) determines the set of grid power units n that are in the top of the dispatch, as described in step 4 c of the "Tool to calculate the emission factor for an electricity system" when calculating the $EF_{EL,DD,h}$ in the spread sheets provided	~~CL 43~~	Ok
5.5.9. Data source to determine the $EF_{CO2,grid,y}$			Source of data for the determination of emission factor of CO2	~~CL 46~~	Ok
5.5.10. Determination of the sample group of power units *m* used to calculate the build margin emission factor			In the spread sheets provided, it is not clear how the PP has applied sub-steps (a) to (f) of step 5 of the "Tool to calculate the emission factor for an electricity system" to $EF_{grid,BM,y}$	~~CL 45~~	Ok
5.5.11. Determination of $EF_{EL,DD,h}$ used in calculating the $EF_{grid,OM\text{-}DD,y}$			It is not clear how the PP determines the values of $EF_{EL,DD,h}$ used in calculating the $EF_{grid,OM\text{-}DD,y}$ in the spread sheets provided	~~CL 44~~	Ok
5.5.12. Were the following steps followedin ex-ante ER calculations					
5.5.13. Estimate the nameplate/rated power of the baseline incadescent lamp to be replaced	AMS	II J	Yes, the nameplate/rated power of the baseline incandescent lamp to be replaced estimated in the PDD	~~CL 15~~	Ok
5.5.14. Determine operating hours	AMS	II J	Yes, Operating hours of project (and baseline) lamps	~~CL 16~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
per 24 hrs period for daily operating hours			is determined by using default value of 3.5 hours per 24 hr period. Option selected not mentioned in the PDD		
5.5.15. Is net energy saved calculated as $NES_y = \sum_{i=1}^{n} Q_{PJ,i} \times (1 - LFR_{i,y}) \times ES_i \times \frac{1}{(1 - TD_y)} \times NTG$ (1) Where: $ES_i = (P_{i,BL} - P_{i,PJ}) \times O_i \times 365/1000$ (2)	AMS	II J	Yes, the net electricity saved calculated as $NES_y = \sum_{i=1}^{n} Q_{PJ,i} \times (1 - LFR_{i,y}) \times ES_i \times \frac{1}{(1 - TD_y)} \times NTG$ Where $ES_i = (P_{i,BL} - P_{i,PJ}) \times O_i \times 365/1000$	Ok	Ok
5.5.16. Is the lamp failure rate calculated as The average life, or the rated average life? If $y * X_i < L_i, LFR_{i,y} = y * X_i * (100 - R_i)/(100 \times L_i)$ If $y * X_i > or = L_i, LFR_{i,y} = 1$	AMS	II J	If $y * X_i < L_i, LFR_{i,y} = y * X_i * (100 - R_i)/(100 \times L_i)$ If $y * X_i > or = L_i, LFR_{i,y} = 1$ Give specific years It's not clear which option was chosen	~~CL 17~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.5.17. Number (quantity) of peices of equipment CFLs distributed or installed under project activity	AMS	II J	Number of CFLs distributed under the project activity, $Q_{PJ,i}$ - 870,000 (approximately) The distribution plan has been availed by KPLC	Ok	Ok
5.5.18. Estimated annual electricity savings for equipment for the relevant technology	AMS	II J	Estimated annual electricity savings for equipment type i, for the relevant technology ES_i	Ok	Ok
5.5.19. Rated power of the baseline lighting devices	AMS	II J	Rated power of the baseline ICLs , $P_{i,\,BL}$ = 64.355	Ok	Ok
5.5.20. Rated power of the project lighting devices	AMS	II J	Rated power of the project CFLs $P_{i,\,PJ}$ = 16.204	Ok	Ok
5.5.21. Average daily operating hours of the lighting devices replaced by the group of lighting devices	AMS	II J	Average daily operating hours of the lighting devices replaced, O_i = 3.5 hours per 24 hours period Default value provided by methodology AMS II J version 4	Ok	Ok
5.5.22. Average annual technical grid losses (transmission and distribution) during hte year for hte grid serving the locations where hte devices are installed, expressed as a fraction	AMS	II J	Average annual technical grid losses (transmission and distribution) for the grid serving the locations where the CFLs are installed, TD_y = 14.72% Technical and Commercial Losses Study, Manitoba Hydro / KPLC, 2006 Study not provided	~~CL 18~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.5.23. Net-to-gross adjustment factor			Net-to-gross adjustment factor, *NTG* = 0.95 Default value provided by the methodology	Ok	Ok
5.5.24. Counter for the year, y	AMS	II J	Counter for year, *Y*	~~CL 19~~	
5.5.25. Number of operating hours per year for equipment	AMS	II J	Number of operating hours per year of equipment, X_i Number days per year multiplied by default average daily operating hours (3.5 hours per 24 hours) = 1,277.50	Ok	Ok
5.5.26. % of lamps of type operating at the end of rated average life or the rated average life (use value of 50)	AMS	II J	% of lamps of type operating at the end of rated average life R_i = Default value of 50	Ok	Ok
5.5.27. Average life(or rated average life until average life value is available) for equipment	AMS	II J	Rated Average Life for CFLs L_i = 15,000 Hours CFL specifications	~~CL 20~~	Ok
c. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	Yes, the methodology provides for selection of between different options for equations or parameters.	Ok	Ok
d. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	90	Yes, adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity	Ok	Ok
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	90	Refer to (5.e.b) above	-	-
f. Will data and parameters be monitored throughout the crediting period of the proposed	VVM	91	Yes data and parameters will be monitored throughout the crediting period	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
CDM project activity?					
g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	91	Not applicable	-	-
i. Appropriate and correct?	VVM	91	Not applicable	-	-
ii. Applicable to the proposed CDM project activity?	VVM	91	Not applicable	-	-
iii. Resulting in a conservative estimate of the emission reductions?	VVM	91	Not applicable	-	-
h. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	91	Not applicable	-	-
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	91	Not applicable	-	-
5.6. Additionality of a project activity					
a. Does the PDD describe how a proposed CDM projet activity is additional?	VVM	94	Yes the PDD has described additionality based on guidelines for demonstration of additionality for small scale project activities version 09	~~CL 21~~ ~~CL 22~~ ~~CL 40~~	Ok
b. Were the following steps of the tool to assess additionality used:	EB 39	Ann 10	No	Ok	Ok
i. Identification of alternatives to the project activity?	EB 39	Ann 10	No	Ok	Ok
ii. Investment analysis to determine that the proposed project activity is either: 1) not the	EB 39	Ann 10	Not applicable	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
most economically or financially attractive, or 2) not economically or financially feasible?					
iii. Barriers analysis?	EB 39	Ann 10	No	Ok	Ok
iv. Common practice analysis?	EB 39	Ann 10	No	Ok	Ok
c. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10	Not applicable	-	-
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	Not applicable	-	-
ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	Not applicable	-	-
d. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10	Not applicable	-	-
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Not applicable	-	-
ii. (b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	Not applicable	-	-
iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives	EB 39	Ann 10	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
undertaken).					
e. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 39	Ann 10	Not applicable	-	-
f. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 39	Ann 10	Not applicable	-	-
g. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 39	Ann 10	Not applicable	-	-
h. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	EB 39	Ann 10	Not applicable	-	-

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i. Has the outcome of Step 1b: Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations done correctly? Please state the outcome.	EB 39	Ann 10	Not applicable	-	-
j. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	Not applicable	-	-
k. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10	Not applicable	-	-
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	Not applicable	-	-
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	Not applicable	-	-
iii. Sub-step 2b: Option II. Apply investment comparison analysis;	EB 39	Ann 10	Not applicable	-	-
iv. Sub-step 2b: Option III. Apply benchmark analysis;	EB 39	Ann 10	Not applicable	-	-
v. Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III);	EB 39	Ann 10	Not applicable	-	-
vi. Sub-step 2d: Sensitivity analysis (only applicable to Options II and III).	EB 39	Ann 10	Not applicable	-	-
l. In sub-step 2a has the determination of	EB	Ann	Not applicable	-	-

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appropraite method of analysis done as per the guidance as below?	39	10			
i. Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 39	Ann 10	Not applicable	-	-
ii. Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	Not applicable	-	-
m. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 39	Ann 10	Not applicable	-	-
n. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 39	Ann 10	Not applicable	-	-
o. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 39	Ann 10	Not applicable	-	-
i. Identify the financial/economic indicator, such as IRR, most suitable for the project type and	EB 39	Ann 10	Not applicable	-	-

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decision context.					
ii. When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.	EB 39	Ann 10	Not applicable	-	-
iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company	EB 39	Ann 10	Not applicable	-	-

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internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.					
p. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 39	Ann 10	Not applicable	-	-
i. Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as	EB 39	Ann 10	Not applicable	-	-

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appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.					
ii. Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in separate annexes to the CDM-PDD.	EB 39	Ann 10	Not applicable	-	-
iii. Justify and/or cite assumptions.	EB 39	Ann 10	Not applicable	-	-
iv. In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 39	Ann 10	Not applicable	-	-
v. Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	Not applicable	-	-
vi. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity.Please specify details for above.	EB 39	Ann 10	Not applicable	-	-
q. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to	EB 39	Ann 10	Not applicable	-	-

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reasonable variations in the critical assumptions.					
r. Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	Not applicable	-	-
s. In step 3: Barrier analysis have all the sub-steps as below been followed?	EB 39	Ann 10	Not applicable	-	-
i. Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity;	EB 39	Ann 10	Not applicable	-	-
ii. Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	EB 39	Ann 10	Not applicable	-	-
t. Has the below guideline followed for Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project?	EB 39	Ann 10	Not applicable	-	-
i. (a) Investment barriers: For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed	EB 39	Ann 10	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
origin.					
ii. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for other technologies that provide services or outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information, The particular technology used in the proposed project activity is not available in the relevant region.	EB 39	Ann 10	Not applicable	-	-
iii. (c) Barriers due to prevailing practice: The project activity is the “first of its kind”.	EB 39	Ann 10	Not applicable	-	-
iv. (d) Other barriers, preferably specified in the underlying methodology as examples.	EB 39	Ann 10	Not applicable	-	-
u. Has the outcome from Step 3a clearly mentioned in PDD?	EB 39	Ann 10	Not applicable	-	-
v. Has the below guideline followed for Sub-step 3	EB	Ann	Not applicable	-	-

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b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)?	39	10			
i. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the implementation of at least one of the alternatives. Any alternative that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration.	EB 39	Ann 10	Not applicable	-	-
ii. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers and whether alternatives are prevented by these barriers.	EB 39	Ann 10	Not applicable	-	-
iii. The type of evidence to be provided should include at least one of the following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities,	EB 39	Ann 10	Not applicable	-	-

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

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	basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.					
z.	Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include justification about non-accessibility of data/information.	EB 39	Ann 10	Not applicable	-	-
aa.	Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	Not applicable	-	-
bb.	Has it been proved that the porject is additional?	EB 39	Ann 10	Not applicable	-	-
cc.	Has the PP demonstrated additionality by explaining Investment barrier, Access-to-finance barrier, Technological barrier, Barrier due to prevailing practice or other barriers?	EB 35	Ann 34	Not applicable	-	-
dd.	If Investment barrier has been explained, is it demonstraed that financilly more viable alternative to the project activity would have led to higher emissions? Please explain.	EB 35	Ann 34	Not applicable	-	-
ee.	If Access-to-finance has been explained, is it	EB	Ann	Not applicable	-	-

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	demonstraed that the project activity could not access appropriate capital without consideration of the CDM revenues? Please explain.	35	34			
ff.	If Technological barrier has been explained, is it demonstraed that a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertinity or low market share of the new technology adopted for the project activity and so would have led to higher emissions? Please explain.	EB 35	Ann 34	Not applicable	-	-
gg.	If prevailing practise barrier has been explained, is it demonstrated that the prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions? Please explain.	EB 35	Ann 34	Not applicable	-	-
hh.	If other barrier has been explained, is it demonstrated that Other barriers such as institutional barriers or limited information, managerial resources, organizational capacity, or capacity to absorb new technologies would prevent the project activity any way?	EB 35	Ann 34	Not applicable	-	-
ii.	Have the project participants identifed the most relevant barrier?	EB 35	Ann 34	Not applicable	-	-
jj.	Have the project participants provided transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc. to demonstrate the most relevant barrier? Please explain.	EB 35	Ann 34	Not applicable	-	-

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5.7. Prior consideration of the clean development mechanism					
a. Is the project ativity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	98	No The start date for the PoA is 25/10/11 while which is the date for start of GSC The start date for the SSC CPA is when the CFL distribution starts	~~CL 23~~	Ok
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98			
c. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins."?	VVM	99	The reported start date in the CPA-DD is 01/01/2013 while PoA-PDD 25/10/11 which is the date for start of GSC	Ok	Ok
d. Does the project activity require construction, retrofit or other modifications?	VVM	99	No	Ok	Ok
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	Not applicable		
f. Is it a new project activity (a project activity with a start date on or after 02 August 2008) or an existing project activity (a project activity with a start date before 02 August 2008)?	VVM	100	It's a new project activity with a start date of after 02 August 2008	Ok	Ok
g. For a new project, for which PDD has not been	VVM	101	Not applicable	-	-

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published for global stakeholder consultation or a new methodology proposed to the CDM Executive Board before the project activity start date, had the PP informed the Host Party DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status? (Provide reference to such confirmation from host Party DNA and/or UNFCCC secretariat).					
h. For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	102	Not applicable	-	-
i. evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project, including, inter alia:	VVM	102	Not applicable	-	-
a. minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?	VVM	101	Not applicable	-	-
ii. reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project	VVM	102	Not applicable	-	-

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in parallel with its implementation, including, inter alia:					
a. contract with consultants for CDM/PDD/methodology services?	VVM	102	Not applicable	-	-
b. Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds)?	VVM	102	Not applicable	-	-
c. evidence of agreements or negotiations with a DOE for validation services?	VVM	102	Not applicable	-	-
d. submission of a new methodology to the CDM Executive Board?	VVM	102	Not applicable	-	-
e. publication in newspaper?	VVM	102	Not applicable	-	-
f. interviews with DNA?	VVM	102	Not applicable	-	-
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	102	Not applicable	-	-
h. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VVM	102	The chronology of events has not been captured and explained/detailed in the PDDs	~~CL 24~~	Ok
5.8. Identification of alternatives					
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	Yes, AMS II J version 4 has prescribed the baseline scenario hence no further analysis is required.	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	Not applicable	-	-
c. Does the list of alternatives given in the PDD esure that:	VVM	106	Not applicable	-	-
i. the list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed CDM project activity?	VVM	106	Not applicable	-	-
ii. the list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?	VVM	106	Not applicable	-	-
iii. the alternatives comply with all applicable and enforced legislation?	VVM	106	Not applicable	-	-
5.9. Investment analysis					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	108	Investment analysis not employed by the PP to demonstrate additionality	Ok	Ok
b. If yes, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	108	Not applicable	-	-
i. the most economically or financially attractive alternative?	VVM	108	Not applicable	-	-
ii. economically or financially feasible, without	VVM	108	Not applicable	-	-

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the revenue from the sale of certified emission reductions (CERs)?					
c. Was this shown by one of the following approaches?	VVM	109	Not applicable	-	-
i. The proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CDM project activity and the alternatives identified and demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity.	VVM	109	Not applicable	-	-
ii. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	Not applicable	-	-
iii. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	109	Not applicable	-	-
d. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 51	Ann 58	Not applicable	-	-
e. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair	EB 51	Ann 58	Not applicable	-	-

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	value of the project activity assets at the end of the assessment period?					
f.	Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 51	Ann 58	Not applicable	-	-
g.	Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 51	Ann 58	Not applicable	-	-
h.	Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	Not applicable	-	-
i.	Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 51	Ann 58	Not applicable	-	-
j.	Does the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB 51	Ann 58	Not applicable	-	-
k.	Was depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, added back to net profits for the purpose of calculating the financial indicator (e.g.	EB 51	Ann 58	Not applicable	-	-

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	IRR, NPV)?					
l.	Has taxation been included as an expense in the IRR/NPV calculation in cases where the benchmark or other comparator is intended for post-tax comparisons?	EB 51	Ann 58	Not applicable	-	-
m.	Are the input values used in all investment analysis valid and applicable at the time of the investment decision taken by the project participant?	EB 51	Ann 58	Not applicable	-	-
n.	Is the timing of the investment decision consistent and appropriate with the input values?	EB 51	Ann 58	Not applicable	-	-
o.	Are all the listed input values been consistently applied in all calculations?	EB 51	Ann 58	Not applicable	-	-
p.	Does the investment analysis reflect the economic decision making context at point of the decision to recomence the project in the case of project activities for which implementation ceases after the commencement and where implementation is recommenced due to consideration of the CDM?	EB 51	Ann 58	Not applicable	-	-
q.	Have project participants supplied the spreadsheet versions of all investment analysis?	EB 51	Ann 58	Not applicable	-	-
r.	Are all formulas used in this analysis readable and all relevant cells be viewable and unprotected?	EB 51	Ann 58	Not applicable	-	-
s.	In cases where the project participant does not	EB	Ann	Not applicable	-	-

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	wish to make such a spreadsheet available to the public has the PP provided an exact read-only or PDF copy for general publication?	51	58			
t.	In case the PP wishes to black-out certain elements of the publicly available version, is it justifiable?	EB 51	Ann 58	Not applicable	-	-
u.	Was the cost of financing expenditures (i.e. loan repayments and interest) included in the calculation of project IRR?	EB 51	Ann 58	Not applicable	-	-
v.	In the calculation of equity IRR, has only the portion of investment costs which is financed by equity been considered as the net cash outflow?	EB 51	Ann 58	Not applicable	-	-
w.	Has the portion of the investment costs which is financed by debt been considered a cash outflow in the calcualtion of equity IRR? (this is not allowed)	EB 51	Ann 58	Not applicable	-	-
x.	Was a pre-tax benchmark be applied?	EB 51	Ann 58	Not applicable	-	-
y.	In cases where a post-tax benchmark is applied, is actual interest payable taken into account in the calculation of income tax?	EB 51	Ann 58	Not applicable	-	-
z.	In such situations, was interest calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio	EB 51	Ann 58	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
used by the project developer for investments taken in the previous three years?					
aa. In cases where a benchmark approach is used is the applied benchmark appropriate to the type of IRR calculated?	EB 51	Ann 58	Not applicable	-	-
bb. Has local commercial lending rates or weighted average costs of capital (WACC) selected as appropriate benchmarks for a project IRR?	EB 51	Ann 58	Not applicable	-	-
cc. Has required/expected returns on equity selected as appropriate benchmark for an equity IRR?	EB 51	Ann 58	Not applicable	-	-
dd. In case benchmarks supplied by relevant national authorities selected is it applicable to the project activity and the type of IRR calculation presented?	EB 51	Ann 58	Not applicable	-	-
ee. In the cases of projects which could be developed by an entity other than the project participant is the benchmark applied based on publicly available data sources which can be clearly validated?	EB 51	Ann 58	Not applicable	-	-
ff. Have internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted average cost of capital - WACC) been applied in cases where there is only one possible project developer?	EB 51	Ann 58	Not applicable	-	-
gg. In such cases, have these values been used for	EB	Ann	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	51	58			
hh. Has a minimum clear evidence of the resolution by the company's Board and/or shareholders been provided to the effect as above?	EB 51	Ann 58	Not applicable	-	-
ii. Has a thorough assessment of the financial statements of the project developer - including the proposed WACC - to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects been conduted?	EB 51	Ann 58	Not applicable	-	-
jj. Does the risk premiums applied in the determination of required returns on equity reflect the risk profile of the project activity being assessed, established according to national/international accounting principles? (It is not considered reasonable to apply the rate general stock market returns as a risk premium for project activities that face a different risk profile than an investment in such indices.)	EB 51	Ann 58	Not applicable	-	-
kk. Has an investment comparison analysis and not a benchmark analysis used when the proposed baseline scenario leaves the project participant no other choice than to make an investment to	EB 51	Ann 58	Not applicable	-	-

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supply the same (or substitute) products or services?					
ll. Have variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the PDD and be reproducible in the associated spreadsheets?	EB 51	Ann 58	Not applicable	-	-
mm. Have a corrective action been raised for a variable to be included in the sensitivity analysis which constitute less than 20% and have a material impact on the analysis ?	EB 51	Ann 58	Not applicable	-	-
nn. Is the range of variations selected is reasonable in the project context?	EB 51	Ann 58	Not applicable	-	-
oo. Dos the variations in the sensitivity analysis at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances?	EB 51	Ann 58	Not applicable	-	-
pp. In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative, is an assessment done of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration	EB 51	Ann 58	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
correlations between the variables as well as the specific socio-economic and policy context of the project activity?					
qq. Was the plant load factor defined ex-ante in the CDM-PDD according to one of the following options:	EB 51	Ann 58	Not applicable	-	-
i. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval?	EB 51	Ann 58	Not applicable	-	-
ii. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)?	EB 51	Ann 58	Not applicable	-	-
rr. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	Not applicable	-	-
ss. Were the parameters cross-checked agains third-party or publicly available sources, such as invoices or price indices?	VVM	111	Not applicable	-	-
tt. Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project	VVM	111	Not applicable	-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
participants reviewed?					
uu. Was the correctnes of computations carried out and documented by the project participants assessed?	VVM	111	Not applicable	-	-
vv. Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions assessed?	VVM	111	Not applicable	-	-
ww. Is the type of benchmark applied is suitable for the type of financial indicator presented?	VVM	112	Not applicable	-	-
xx. Do any risk premiums applied determining the benchmark reflect the risks associated with the project type or activity?	VVM	112	Not applicable	-	-
yy. To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by:	VVM	112	Not applicable	-	-
i. assessing previous investment decisions by the project participants involved?	VVM	112	Not applicable	-	-
ii. determining whether the same benchmark has been applied?	VVM	112	Not applicable	-	-
iii. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	112	Not applicable	-	-
zz. Did the project participants rely on values from	VVM	113	Not applicable	-	-

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Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activities?					
xx. If yes:	VVM	113	Not applicable	-	-
i. has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	113	Not applicable	-	-
ii. Are the values used in the PDD and associated annexes fully consistent with the FSR?	VVM	113	Not applicable	-	-
iii. If not, was the appropriateness of the values validated?	VVM	113	Not applicable	-	-
iv. On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	113	Not applicable	-	-
5.10. Barrier analysis					
a. Has barrier analysis been used to demonstrated	VVM	115	Not applicable	-	-

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the additionality of the proposed CDM project activity?					
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VVM	115	Not applicable	-	-
i. prevent the implementation of this type of proposed CMD project activity?	VVM	115	Not applicable	-	-
ii. do not prevent the implementation of at least one of the alternatives?	VVM	115	Not applicable	-	-
c. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be assessed by investment analysis. [Refer to (6.c) above]}	VVM	116	Not applicable	-	-
d. Were the barriers determined as real by:	VVM	117	Not applicable	-	-
i. asssing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	117	Not applicable	-	-
ii. ensuring that existence of barriers is	VVM	117	Not applicable	-	-

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substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?					
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	117	Not applicable	-	-
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of *at least one of* the possible alternatives, in particular the identified baseline scenario?	VVM	117	Not applicable	-	-
5.11. Common practice analysis					
a. Is this a proposed large-scale, or first-of-its kind small-scale project activity?	VVM	119	Not applicable	-	-
b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	119	Not applicable	-	-
c. Was it assessed whether the geograpphical	VVM	120	Not applicable	-	-

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scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologis the relevatn region for assessment will be local and for others it may be transnational/global.					
d. Was a region other than the entire host country chosen?	VVM	120	Not applicable	-	-
e. If yes, was the explanation why this region is more appropriate assessed?	VVM	120	Not applicable	-	-
f. Using official sources and local and industry expertise, was it determined to what extent similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region?	VVM	120	Not applicable	-	-
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	120	Not applicable	-	-
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	Not applicable	-	-
5.12. Monitoring plan					
a. Does the PDD include a monitoring plan?	VVM	122	Yes the PDD contains a monitoring planning sections A.4.4.2 of CPA-DD And B6.1 PoA-DD provided	Ok	Ok

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b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122	As described in the Green Light for Africa SSC-PoA, and in Paragraph 19 of the applied approved methodology (AMS II.J/Version 4), monitoring includes (i) recording of lamp distribution data, and (ii) *ex post* monitoring surveys	Ok	Ok
c. Were the list of parameters required by the the selected methodology identified?	VVM	123	The list of parameters required by paragraph 19 of approved methodology (AMS II.J/Version 4) have been identified as (i) recording of lamp distribution data, and (ii) *ex post* monitoring surveys	Ok	Ok
d. Does the monitoring plan contains all necessary parameters?	VVM	123	Yes , the monitoring plan contains the listed parameters as per AMS IIJ	Ok	Ok
e. Are the parameters clearly described?	VVM	123	See section below	-	-
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	123	"	-	-
g. Specific questions per methodology regarding parameters.	VVM	123			
h. Important parameters at **validation**: • Average life time of the CFL • Number and power of the replaced ICLs	AMS	II J	The parameters identified by the CME in the PDDs at validation included in section B 5.1 of the CPA-DD Rated Average Life for CFLs Number of CFLs distributed under the project activity, Rated power of the baseline ICLs, Rated power of the project CFLs	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
• Number of ICLs distributed under the project , identified by the type of ICL and the date of supply • Grid emission factor			Emission Factor for displacement of electricity in the grid serving the households Estimated annual electricity savings Percentage of lamps that have failed Average daily operating hours of the lighting devices replaced Number of operating hours per year of equipment Net electricity saved in Year Emission reductions		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Does monitoring include recording of lamp distribution data.	AMS	II J	Yes, the monitoring includes recording of lamp distribution data as described in section B 6.1 and annex 4 of the PoA-DD.	Ok	Ok
j. Does monitoring include recording of ex-post monitoring surveys.	AMS	II J	Yes, the monitoring includes recording of lamp distribution data as described in section B 6.1 of the PoA-DD.	Ok	Ok
k. Does the monitoring plan cover on recording of distribution of data: During project activity implementation, the following data are to be recorded: • Number of pieces of equipment distributed under the project activity, identified by the type of equipment and the date of supply; • The number and power of the replaced devices; • Data to unambiguously identify the recipient of the equipment distributed under the project activity;	AMS	II J	Yes, described in the PDDs as: PoA (A.4.4.2) • The physical geographic location of each measure (each CFL) installed. • Number of pieces of equipment distributed. • Nameplate/ rated power rating of CFLs supplied. • Date of supply. • The number and nameplate/ rated power (Watts) of the replaced devices. • Unambiguous identification of the recipient of the equipment.	~~CL 25~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			• Verification of destruction of ICLs The Due Diligence Checklist and Assessment document not provided CPA1 (B6.1) At the time of install/exchange of project CFLs, KPLC staff or their agents will record on official hardcopy forms the following information: • The address where the exchange was undertaken. • Number of CFLs installed. • Nameplate power rating of CFLs supplied. • Date of supply.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			• The number and nameplate rated power of ICLs replaced. • Customer Account Number corresponding to the meter of the householder receiving CFLs. • Signature of householder that they relinquish any rights over the CERs generated from the project CFLs to KPLC • Documented third party evidence will be held verifying the destruction/recycling of the ICLs replaced in the SSC-CP		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
I. The Emission Reductions are calculated *ex ante* and adjusted *ex post* following the monitoring surveys	AMS	II J	ER has been calculated ex-ante as described in section b, ii above on alogarithms and or formulae to determine ER	Ok	Ok
a) .First *ex post* monitoring survey, carried out within the first year after installation of all efficient lighting equipment will provide a value for the number of CFLs placed in service and operating under the project activity. The results of this survey are used to determine the quantity of CFLs (*QPJ,i*) in the Emission Reduction calculation to determine the *ex post* Lamp Failure Rate (*LFRi,y*) for use in *ex post* Emission Reduction calculations			As described in section E.6.2 of the PoA-DD As per Paragraph 17 of the approved methodology to be applied the first *ex post* monitoring survey will be carried out within the first year after installation of all efficient lighting and will provide a value for the number of CFLs operating under the project activity. The results of this survey will be used to determine the quantity of CFLs ($Q_{PJ,i}$) installed/operating under the project activity and determine the *ex post* Lamp Failure Rate ($LFR_{i,y}$) for use in *ex post* Emission Reduction calculations		
b) Subsequent *ex post* monitoring surveys are carried out at the following intervals to determine the *ex post* Lamp Failure Rate (*LFRi,y*) for use in *ex post* Emission Reduction calculations until such time as CERs are being requested, (choose either of the following two options that define the minimum requirement for the frequency of the survey):			As described in the PDD section E.6.2, for the project activity Subsequent *ex post* monitoring surveys will be carried out once every 3 years at a minimum to determine the *ex post* Lamp Failure Rate ($LFR_{i,y}$) for use in *ex post* Emission Reduction calculations. The option chosen is once every 3 years		

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Once every 3 years; OR Once for every 30% of the elapsed Rated Average Life or Average Life of the lamp c) The surveys will consist of identifying CFLs, marked per paragraph 6, that are installed and operating. Only CFLs with an original marking can be counted as installed. While CFLs replaced as part of a regular maintenance or warranty program can be counted as operating, cannot be replaced as part of this monitoring survey process and counted as operating for the purposes of determining. d) The Net Electricity Savings shall be modified for changes to the Lamp Failure Rate as may be indicated by *ex post* monitoring survey results and/or on the basis of CFL Average Life values if a CFL Rated Average Life was used initially. e) The modifications shall be made using the following methods:			The surveys will consist of identifying CFLs, marked as per paragraph 6 of the approved methodology, that are installed and operating. Only CFLs with an original marking will be counted as installed. While CFLs replaced as part of a regular maintenance or warranty program can be counted as operating, they cannot be replaced as part of this monitoring survey process and counted as operating for the purposes of determining quantity of CFLs. <u>Changes to Lamp Failure Rate</u> The Net Electricity Savings shall be modified for changes to the Lamp Failure Rate as may be indicated by *ex post* monitoring survey results. Choice made on modification as per ex-post survey results. The (NES) modifications shall be made using the following methods: • If Rated Average Life values were used initially for calculating LFR_y, per equation (3), as soon as		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
• If Rated Average Life values were used initially for calculating LFRy, per equation (3), as soon as Average Life values are available they shall be used for calculation of subsequent year LFRi,y values. • If the *ex post* monitoring surveys indicate that the failure rate is equal to or less than the LFRi,y value indicated using equation (3) with *ex ante* or prior year, *ex post* monitoring values, for subsequent years LFRi,y shall continue to be determined using Equation (3) and the established Average Life values for Li. • However, for subsequent years, Li values in LFRi,y equation (3) shall be adjusted if the *ex post* monitoring surveys indicate that the failure rate (LFRi,y) is greater than the value indicated using equation (3) with Average Life or prior year, *ex post* monitoring values. In this situation, a new value for Li shall be determined using equation (3) and new values of LFRi,y shall be used beginning from the first calculation year after completion of the *ex post* survey			Average Life values are available they shall be used for calculation of subsequent year $LFR_{i,y}$ values. • If the ex post monitoring surveys indicate that the failure rate is equal to or less than the $LFR_{i,y}$ value indicated using equation (3) with ex ante or prior year, ex post monitoring values, for subsequent years $LFR_{i,y}$ shall continue to be determined using Equation (3) and the established Average Life values for L_i. However, for subsequent years, L_i values in $LFR_{i,y}$ equation (3) shall be adjusted if the ex post monitoring surveys indicate that the failure rate ($LFR_{i,y}$) is greater than the value indicated using equation (3) with Average Life or prior year, ex post monitoring values. In this situation, a new value for L_i shall be determined using equation (3) and new values of $LFR_{i,y}$ shall be used beginning from the first calculation year after completion of the ex post survey		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
m. Avoidance of leakage through scrapping of replaced equipment	AMS	II J	Yes, described in section B.6.1 of the PDD; Documented third party evidence will be held verifying the destruction/recycling of the ICLs replaced in the SSC-CPA. Please clarify how recycling will be done	~~CL 26~~	Ok
n. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123			
o. Does the monitoring plan provide details regarding calibration of monitoring equipments/ instruments or does it include zero check as a substitute for calibration? (zero check can not be considered as a substitute for calibration)	EB 24	37	The monitoring plan provided does not cover details regarding calibration of monitoring equipments/ instruments.	~~CL 27~~	Ok
p. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	123			
i. data management procedures?	VVM	123	Each SSC-CPA implementer will use and maintain a record keeping system to capture and document the required data. This record keeping system must be approved by the PoA CME (in the CME's due diligence process and managed via the Green Light for Africa SSC-CPA Due Diligence Checklist and Assessment document)	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			a). Data on recording of lamp distribution captured in these hardcopy forms will then be coded and stored electronically. During this coding checks will be undertaken for accuracy and completeness of data collected. Hardcopy forms will be securely stored in a central location. Information from the SSC-CPA record keeping system will be consolidated and stored in the CME project database. The following will need clarifications in terms of responsibility within the project activity as they are not clear from the monitoring plan provided: - the reconciliation of ICLs - data collection, input and verification for accuracy - storage and management of data in soft and hard copies b) it is the responsibility of the CME to undertake periodic *ex post* monitoring surveys	~~CL 28~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ii. quality assurance procedures?	VVM	123	Documented third party evidence will be held verifying the destruction/recycling of the ICLs replaced in the SSC-CPA However it is not clear on the responsibility of periodic verification checks on reviewing the project data base.	~~CL 29~~	Ok
iii. quality control procedures?	VVM	123	During this coding checks will be undertaken for accuracy and completeness of data collected. To ensure that no double accounting occurs and that the status of verification can be determined for each CPA the CME will establish a project database. However it is not clear on the responsibility of verification checks on the accuracy, and completeness of data collected.	~~CL 30~~	Ok
iv. Conducting the surveys and sampling The following survey principles shall be followed for activities related to determining number of CFLs placed in service and operating under the project activity and, if required, determining the number of operating hours of baseline and project lamps: • The sampling size is determined by minimum 90% confidence interval and the 10% maximum error margin; the size of the sample shall be no less than 100;	AMS	II J	The sampling principles for the *ex post* monitoring survey related to determining number of CFLs placed in service and operating under the project activity has been described in the annex 4 of the PoA DD as per approved methodology AMS II J version 4 Some sections of annex 4 of the PoA DD are illegible and Introduction to the Practice of Statistics, Moore and McCabe (1993), page 582-3 not provided The PoA CME is responsible for undertaking the ex	~~CL 31~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
• Sampling must be statistically robust and relevant i.e., the survey has a random distribution and is representative of target population (size, location); • The method to select respondents for interviews is random; • The survey is conducted by site visits; • Only persons over age 12 are interviewed; • The project document must contain the design details of the survey.			post monitoring survey In accordance with the Green Light for Africa SSC-PoA, the sampling plan for the *ex post* monitoring survey is presented below. <u>Sampling Objective</u> The sampling objective is to obtain a statistically robust estimate of key variables used in the calculation of Emission Reductions, specifically, the Lamp Failure Rate ($LFR_{i,y}$) for each type of lamp i. The objective is to determine the parameter $LFR_{i,y}$ for the monitoring period with a 90/10 confidence precision. The data to be collected will consist of identifying and recording the number of CFLs, marked with clear unique identification as part of the Green Light for Africa – SSC-CPA No. 1 – Kenya, that are installed and operating in households participating in the SSC-CPA. Only CFLs with original markings will be counted. The survey will be conducted through site visits to a random sample of households that have participated in the SSC-CPA. Only persons over age 12 will be interviewed as part of the survey. The first survey will be conducted within the first year		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			after installation of project CFLs. Subsequent surveys will be carried out a minimum of once every 3 years. As such, the first survey will be conducted in Year 1 and the subsequent surveys will take place in Years 4, Years 7 and Year 10 (depending on the length of the crediting period). Subsequent surveys may be undertaken more frequently than once every 3 years. The data collected will be used to determine parameter $LFR_{i,y}$ for each type of lamp i for the relevant monitoring period(s). <u>Target population and sampling frame</u> The target population is those households that have participated in the SSC-CPA. A sampling frame is a list of all members of a population used as a basis for sampling. The sampling frame to be used here is all households that have participated in the SSC-CPA. Data indentifying these households is held in the SSC-CPA Implementer's record keeping system and the CME's Project database. <u>Sample Method</u> A "Simple Random Sample" will be taken from the sampling frame (households that have participated in the SSC-CPA). The random sample will be		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			undertaken by the outsourced third party expert provider of market research services using an industry best practice approach. The approach to sampling will be transparently documented in their report. The desired precision is a minimum 90% confidence interval and the 10% maximum error margin. To determine the sample size, the following formula is used with the above requirements: Sample size* = 271 AMS-II.J./ Version 4 states the minimum sample size will be 100. Accordingly, a minimum sample size of 100 will be used to determine the parameter $LFR_{i,y}$ for each type of lamp i. The data collection will be undertaken by an expert third party service provider (e.g. market research company). In contracting an expert third party service provider, the CME will conduct a "Request for Tender" process that will specify and assess providers' experience, capacity and skills in designing and delivering similar surveys. Responses		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			from potential service providers will detail intended training programs for field personnel, provisions for maximising response rates, procedures for refusals and other sources of non-responses, record keeping and quality assurance processes. Service providers will be selected on the basis of their qualifications, experience and any potential conflicts of interest. The CME will select and establish a contract with the preferred expert third party service provider. In broad terms they will be required to: • Randomly select households from CME Project Database related to the SSC-CPA to be surveyed • Visit identified households and assess: – Number of CFLs installed – Type of CFL installed – If installed CFLs carry the clear unique identification of the SSC-CPA – If installed CFLs carrying the unique identification are operating • Provide robust and transparent collection and collation of data • Provide written report(s) • Ensure a minimum of 100 CFLs will be		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			sampled for each type of equipment i. The schedule for implementing the survey for a SSC-CPA is the first survey will be conducted within the first year after installation of project CFLs. Subsequent surveys will be carried out a minimum of once every 3 years. As such, the first survey will be conducted in Year 1 and the subsequent surveys will take place in Years 4, Years 7 and Year 10 (depending on the length of the crediting period). Subsequent surveys may be undertaken more frequently than once every 3 years. <u>"Cluster" of homogenous SSC-CPAs</u> Where SSC-CPA's target populations can be demonstrated to be homogenous (e.g. multiple CPAs in one geographic and/or socio-economic population) SSC-CPAs will be clustered together and one representative ex post monitoring survey conducted to satisfy monitoring requirements across like SSC-CPAs		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.13. Sustainable development					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	Yes the CDM project activity assists parties not included in Annex I i.e. Kenya and Zimbabwe	Ok	Ok
b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable development of the host Party?	VVM	126	Yes, the LoA confirms contribution of the proposed CDm project activity to the sustainable development of Kenya and Zimbabwe	Ok	Ok
5.14. Local stakeholder consultation					
a. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	As per the PDD, A public participation meeting was organised on 25th August 2011 at the Simba Hills Room, Kenyatta International Conference Centre (KICC), Nairobi, Kenya. The public participation meeting was advertised in the Daily Nation on 18th August 2011. In addition to the advert in the Daily Nation, personal invitations were sent to the representatives of the local stakeholders such as national government, departments, non-government organizations, carbon consultants, private businesses, electricity utility, However the invitations and adverts not provided	~~CL 32~~	Ok
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	The comments by stakeholders have been summarized in the PDD	Ok	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
c. Is the summary of the comments received as provided in the PDD complete?	VVM	129	The summary of comments received is complete	Ok	Ok
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	In the PDD its stated that 'There were no comments that required a follow-up' This statement requires clarification	~~CL 33~~	Ok
5.15. Environmental impacts					
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	131	No, the analysis of environmental impacts of the project activity documentation not been submitted but in the PoA-DD descriptions have been made	~~CL 34~~	Ok
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	132	Yes, the analysis of environmental impact has been based on a World Bank report on Large –Scale Residential Energy Efficiency Programs Based on CFLs. However the report has not been provided.	~~CL 35~~	Ok
c. Does the host Party require an environmental impact assessment?	VVM	132	Described in at CPA level	Ok	Ok
d. If yes, have the project participants undertaken an environmental impact assessment?	VVM	132	Described at CPA level	Ok	Ok
5.16. Eligibility criteria					
5.16.1. Please clarify whether all the CPAs to be included in the PoA will be subjected to the version of methodology AMS II.J/Version 4	VVM	167	Yes , All CPAs will apply version 4 of AMSII.J.	~~CL 36~~	Ok
5.16.2. The means for demonstrating additionality not clear and applicability conditions to be met not mentioned in the	VVM		Table in Section B.2 of the CPA1-DD has been updated to include specific means by which additionality and eligibility has been met.	~~CL 37~~	Ok

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
eligibility criteria					
5.16.3. Its not clear how each eligibility criteria has been met	VVM		Yes, Table in Section B.2 of the CPA1-DD has been updated to include Conformance Criteria against each Eligibility Criteria.	~~CL 38~~	Ok
5.16.4. The eligibility criteria for the inclusion of a SSC_CPA in a CPA need to be follow the para 14 of standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities	VVM		Yes, the eligibility criteria has been corrected to refer to para 14 of standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities	~~CL 42~~	Ok

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 and 2	Summary of project owner response	Validation team conclusion
CAR 01 Letter of Approval not provided for all Parties involved approved the project activity	1.1	20/07/12 LoA for Kenya provided while Tanzania, Uganda has been struck out from the PoA	23/07/12 The LOA from Kenya DNA, NEMA has been provided dated 20th July 2012
CAR 02 It's not demonstrable how the SSC-CPA meets the applicability conditions under section E.2	5.2.iv	10/04/12 Section E.2 of the PoA-DD has been updated to clearly show conformance criteria for the applicability conditions in the chosen methodology AMS-II.J/Version 4, as well as the applicability of the tools used.	23/04/12 The SSC CPA has demonstrated how it meets the applicability criteria set.
CAR 03 The choice of the methodology not demonstrated in the PoA-DD	5.2.12.vi	10/04/12 It is now explicitly stated in Section E.2 of the PoA-DD that the methodology AMS-II.J./Version 4 has been chosen.	23/04/12 The choice of methodology has been provided in section E.2 of the applicability conditions.
CL 01 The PPs have not been listed in tabular form in section A.3 of the PDD	2.3	8/12/11 PPs now listed in tabular form in section A.3 of the PoA-DD.	7/01/2012 Provided under section A.3 of the PoA-DD Ok and closed
CL 02 PoA-DD - version number and date not provided CPA-DD – dated 11/10/11 but version number not provided including version history. Additionally the reference no. and date of registration not provided in the CPA-DD	3.5	8/12/11 Version number & date now added to PoA-DD & CPA-DD.	23/04/12 Version number and date, reference no provided in PoA & CPA-DDs Ok and closed

CL 03 Please provide the appropriate host-specific policies and or campaigns mentioned in the PDDs	4.1	10/04/12 PoA-DD updated with policies and campaigns for Kenya, Zimbabwe, Uganda & Tanzania. “ibid” is from the latin and a standard term in citation. It means “same source as previous citation above”. For the avoidance of confusion, this term has been removed and the source document repeated.	23/04/12 The energy policies have been referenced and provided. Ok and closed
CL 04 The following will need clarifications in terms of responsibility within the project activity as they are not clear from the project description provided: - the reconciliation of ICLs - data collection, input and verification for accuracy - storage and management of data in soft and hard copies	4.2.1	8/12/11 The CPA-DD has been updated in Sections A.2, B.6.1, and Annex 4, with relevant responsibilities.	27/01/12 The PDD has been updated accordingly. Ok and closed
CL 05 The expected operational lifetime of the small-scale CPA and start of the crediting period reported as 10 years and 01/04/2010 respectively; but basis not mentioned in the PDD	4.2.1	10/04/12 Section A.4.3 of the CPA-DD has been updated with the limitations of methodology AMS-II.J. “Average life” is defined here as the number of “burning hours” of the CFL, rather than total elapsed time.	23/04/12 The average life of the CFLs provided as 10 years as set out in AMS II J Ok and closed
CL 06 The CFL wattage equivalent to a 200W ICL is 40W sourced from PoA 3223, but it’s not clear from which specific section of this project its sourced from.	4.2.1	10/04/12 Source document version and paragraph reference has been provided in footnote 16 of the PoA-DD.	23/04/12 The foot note 16 has been updated Ok and closed

CL 07 The SSC project with estimated annual ER of 26,513 tonnes CO_2e which exceeds 15,000 tonnes per year. In Table 1 include the crediting period and actual years instead of year 1, 2…	4.4.2	8/12/11 There is no rule limiting small-scale projects to 15,000 CERs per year. The methodological limit is 60GWh p.a., and the project is within this limit. Table 1 in CPA-DD updated.	27/01/12 The CPA-DD has been updated Ok and closed
CL 08 Under section B.4 of CPA-DD, provide specific references for information on KENGEN	5.3.3e	11/06/12 Reference changed and updated on PDD	20/06/12 Reference provided Ok and closed
CL 09 AMS II J does not require the identification of alternatives however the PP has identified alternative scenarios *(*Four Alternative scenarios *Ext ante* in the context of this PoA)	5.4.2e	8/12/11 Alternative scenarios have been updated in the PDDs	27/01/12 Alternative scenarios to the baseline scenario have been identified. Ok and closed
CL 10 The World Bank, "Large-Scale Residential Energy Efficiency Programs based on CFLs" (2009*)* The World Bank ESMAP, Case Study Uganda Compact Fluorescent Program These have not been provided	5.4.2h, iii	9/07/12 Corrected and provided to DOE	17/07/12 The link has been provided Ok and closed
CL 11 PoA-DD Foot notes 12, 15, 16, 19 report not provided and specific area not quoted Foot notes 13, 17 report not provided and specific area not quoted Foot note 14 link not specific to literature provided Foot note 18 link not specific to literature provided	5.4.2i	9/07/12 PoA-DD updated with specific links & page references. Documents provided to DOE.	17/07/12 The link has been provided Ok and closed
CL 12 Relevant policies and circumstances have not been identified in the PoA-DD & CPA-DDs	5.4.2L	8/12/11 Country policies have been updated in PoA-DD.	27/01/12 Host specific policies and circumstances provided Ok and closed

CL 13 The option selected for calculation of ER not mentioned in the PDD	5.5.4	8/12/11 Section E.6.2 of PoA-DD has been updated to state that default hrs of use option has been selected.	27/01/12 The PoA-DD has been updated; selected option is combined margin CO_2 emission factor. Ok and closed
CL 14 Electricity is imported from the Ugandan grid via 132 kV transmission line. However, the Ugandan grid is not described as a connected electricity system based on the following arguments: • There are no spot markets along the Kenyan and Ugandan electricity system • The transmission line is not operated at 90% of its rated capacity during 90% or more of the hours of the year Please clarify the source of information	5.6.2	8/12/11 Reference has been updated with references to most recent KPLC Annual Report (2011).	27/01/12 KPLC annual report (2011) provided with references at foot note 7 & 8 Ok and closed
CL 15 The nameplate/rated power of the baseline incandescent lamp to be replaced estimated in the PDD The rated power of the baseline ICLs provided as **68.127** from CPA implementer; however the source of data and calculation not provided The reference has been provided however the source of data needs authentication from KPLC	5.11.1	18/07/12 Hard copies certified as resolved This was done and submitted. *Please refer to 12 06 26 Clarifications and corrective action requests review by validation team_Greenlight_20 June 2012*	20/07/12 The consolidated beneficiaries data and lamp wattages calculations provided Ok and closed
CL 16 Yes, Operating hours of project (and baseline) lamps is determined by using default value of 3.5 hours per 24 hr period Option selected not mentioned in the PDD	5.11.2	8/12/11 CPA-DD updated on pages 12 and 16 to reflect that Option 1 (the default value) of paragraph 11 (ii) of methodology AMS-II.J has been selected.	27/01/12 Option selected for operating hours provided Ok and closed

CL 17 For calculation of LFR Give specific years and it's not clear which option was chosen	5.11.4	8/12/11 LFR table on page 10 of CPA-DD now has specific years. Statements on page 10 have been clarified to show the LFR has been calculated, with future modifications allowed from ex-post monitoring survey results, as per the prescribed formulae and statements in paragraphs 14 and 18 of the chosen methodology AMS-II.J.	27/01/12 The CPA-DD has been updated Ok and closed
CL 18 Technical and Commercial Losses Study, Manitoba Hydro / KPLC, 2006 Study not provided	5.11.10	9/07/12 Source cited in the CPA DD	17/07/12 Chapter 2, pg 17 14.72% Ok and closed
CL 19 Counter for year, *Y* instead of *y*	5.11.12	8/12/11 Y changed to y on page 13 of the CPA-DD.	27/01/12 CPA-DD updated Ok and closed
CL 20 Rated Average Life for CFLs Li = 12,000 Hours CFL specifications	5.11.15	9/07/12 No change on specs will be made. Being a public utility, tender process must take usual time-refer to the rationale for start date.	17/07/12 Ok and closed
CL 21 Yes the PDD has described simple cost analysis of this project activity to demonstrate additionality from an investment barrier perspective. However the version of Attachment A to Appendix B of the "Simplified modalities and procedures for small-scale CDM project activities not indicated in the PoA-DD and basis for choice of guideline.	5..6a	8/12/11 The version number has been added in Sections A.4.3, E.5.1 and E.5.2.	27/01/12 The version number of attachment A of appendix B updated POA DD A.4.3, E 5.1 & E5.2. Ok and closed

CL 22 Yes, investment barrier (simple cost analysis) has been used to demonstrate additionality that the project activity is not economically or financially feasible as referred in annex 34 EB 35, title of guideline not provided	5.6a	8/12/11 Title of guideline has been stated in Sections E.5.1 and A.4.3 and E.5.2 of the PoA-DD.	27/01/12 The title for EB 35 annex 34 updated in the PoA DD Ok and closed
CL 23 The start date for the SSC-CPA is 01/01/2013 while for. Rationale for this date provided as contract signing Greenlight for Africa however contract not provided	5.7a	9/07/12 Provided	17/07/12 The start dates have been provided Ok and closed
CL 24 The chronology of events has not been captured and explained/detailed in the PDDs	5.7h,ii,h	17/07/12 Chronology of events amended	9/07/12 Updated with date for latest issue of specifications Ok and closed
CL 25 The Due Diligence Checklist and Assessment document not provided	5.12k	8/12/11 Document provided to DOE.	27/01/12 The Due diligence checklist and Assessment form provided Ok and closed
CL 26 Documented third party evidence will be held verifying the destruction/recycling of the ICLs replaced in the SSC-CPA. Please clarify how recycling will be done	5.12m	8/12/11 It is the responsibility of the CPA implementer to find a suitable means of destruction/recycling compliant with PoA requirements. The chosen methodology AMS-II.J. doesn't require recycling but it is considered best practice.	27/01/12 The responsibility of the CPA implementer added Ok and closed

CL 27 The monitoring plan provided does not cover details regarding calibration of monitoring equipments/ instruments.	5.12o	8/12/11 There is no monitoring equipment required, just a periodic ex-post monitoring survey asking questions of householders who participated in the program, and inspecting their houses for installed and operating program CFLs.	27/01/12 Monitoring plan updated Ok and closed
CL 28 The following will need clarifications in terms of responsibility within the project activity as they are not clear from the monitoring plan provided: - the reconciliation of ICLs - data collection, input and verification for accuracy - storage and management of data in soft and hard copies	5.12p,i	8/12/11 This has been addressed in CL04.	27/01/12 Monitoring plan has been updated Ok and closed
CL 29 It is not clear on the responsibility of periodic verification checks on reviewing the project data base.	5.12p,ii	8/12/11 If not already addressed in CL04, please see additional document Green Light for Africa PoA Data Management Quality Assurance Procedures v1.0.doc	27/01/12 Additional document on data management and QA availed Ok and closed
CL 30 It is not clear on the responsibility of verification checks on the accuracy, and completeness of data collected	5.12p,iii	8/12/11 If not already addressed in CL04, please see additional document Green Light for Africa PoA Data Management Quality Assurance Procedures v1.0.doc	27/01/12 Green Light for Africa PoA Data Management Quality Assurance Procedures v1.0.doc Ok and closed
CL 31 Some sections of annex 4 of the PoA DD are illegible and Introduction to the Practice of Statistics, Moore and McCabe (1993), page 582-3 not provided	5.12p,iv	9/07/12 This was corrected in response to the previous CARs.	17/07/12 The PDD has been amended Ok and closed

CL 32 The invitations and adverts not provided	5.14a	10/04/12 Email invitations (*Stakeholder Consultation Kenya invitation emails.zip*) and newspaper advertisement (*Stakeholder Consultation Kenya newspaper advert.pdf*) provided to DOE. Stakeholder Consultation changed to CPA level; information transferred from PoA-DD to CPA1-DD.	03/05/12 The newspaper advert provided for Thur 18, 2011 Daily Nation Email invitations have been provided The LSC changed to CPA level and number of attendees given as 13 Ok and closed
CL 33 In the PDD its stated that 'There were no comments that required a follow-up' This statement requires clarification	5.14d	10/04/12 Questions and responses are shown in numbers 7-10 in Section D.2. on page 23-24 of the CPA1-DD.	03/05/12 The queries have been included Ok and closed
CL 34 The analysis of environmental impacts of the project activity documentation not been submitted but in the PoA-DD descriptions have been made; Letter from the NEMA Director General and project report PR not provided.	5.15a	9/07/12 Letter from DG is availed this guided the preparation of the Project Report in place of EIA	24/08/12 The environmental impact assessment should be done at CPA level due to host specific EIS requirements Ok and closed
CL 35 The analysis of environmental impact has been based on a World Bank report on Large –Scale Residential Energy Efficiency Programs Based on CFLs. However the report has not been provided	5.15b	9/07/12 Value for additional thermal capacity corrected in the CPA DD	17/07/12 Footnote 6 has been amended Ok and closed
CL 36 Please clarify whether all the CPAs to be included in the PoA will be subjected to the version of methodology AMS II.J/Version 4	5.16.3	9/07/12 All CPAs will apply version 4 of AMSII.J.	17/07/12 The version indicated Ok and closed

CL 37 The means for demonstrating additionality not clear and applicability conditions to be met not mentioned in the eligibility criteria	5.16.2	10/04/12 Table in Section B.2 of the CPA1-DD has been updated to include specific means by which additionality and eligibility has been met.	03/05/12 The means for demonstrating additionality given as Annex 24 EB 63, Attachment A to Appendix B Ok and closed
CL 38 Its not clear how each eligibility criteria has been met	5.16.3	10/04/12 Table in Section B.2 of the CPA1-DD has been updated to include Conformance Criteria against each Eligibility Criteria.	03/05/12 The compliance to the eligibility criteria provided Ok and closed
CL 39 Version of guidance for determining the occurrence of de-bundling under a PoA not same as one provided by the EB under section A 4.4.1 of PoA-DD	4.2.1	9/07/12 PoA DD corrected	17/07/12 Version of tool amended Ok and closed
CL 40 Its not clear on the applicability of the tool for the demonstration of additionality version 05.2 (E.2 PoA-DD) since attachment A to appendix B guideline already applied to demonstrate additionality of CPA	5.6a	10/04/12 The paragraphs referencing the 'Tool for the demonstration for additionality version 05.2' have been removed from Section E.2 of the PoA-DD.	03/05/12 The review is done Ok and closed
CL 41 The national grid emission factor for Kenya has been calculated using a UN-accredited calculator reserved by KPLC however the spread sheets/calculations for baseline, GEF not provided	5.5.7	2/07/12 12 07 09 Green Light Updated dispatch Tool with Fuel data. Please also refer to 12 07 18 Green Light Updated dispatch Tool with Fuel data	03/08/12 The KPLC dispatch tool has been provided Ok and closed
CL 42 The eligibility criteria for the inclusion of a SSC_CPA in a CPA need to be follow the para 14 of standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities	5.16.4	2/07/12 Corrected. Please refer to *12 07 18 Green Light for Africa SSC-PoA DD*	18/07/12 The eligibility criteria has been corrected Ok and closed

CL 43 It is not clear how the Project Participant (PP) determines the set of grid power units *n* that are in the top of the dispatch, as described in *step 4 c* of the "Tool to calculate the emission factor for an electricity system" when calculating the $EF_{EL,DD,h}$ in the spread sheets provided.	5.7	18/07/12 The dispatch tool has been updated	03/08/12 Updated dispatch tool provided Ok and closed
CL 44 It is not clear how the PP determines the values of $EF_{EL,DD,h}$ used in calculating the $EF_{grid,OM-DD,y}$ in the spread sheets provided	5.10	18/07/12 The dispatch tool has been updated	03/08/12 The determination of the values have been provided Ok and closed
CL 45 In the spread sheets provided, it is not clear how the PP has applied sub-steps (a) to (f) of *step 5* of the "Tool to calculate the emission factor for an electricity system" to determine the sample group of power units *m* used to calculate the build margin emission factor $EF_{grid,BM,y}$	5.9	18/07/12 The steps have been amended	03/08/12 The sub-steps in the spread-sheets have been provided Ok and closed
CL 46 Provide the source of data used to determine the $EF_{CO2,grid,y}$	5.8	18/07/12 The source of data was provided	03/08/12 The source of data has been availed by the PP Ok and closed