



VALIDATION REPORT  
**STANDARD BANK PLC**  
VALIDATION OF THE  
**STANDARD BANK ENERGY  
EFFICIENT COMMERCIAL  
LIGHTING PROGRAMME OF  
ACTIVITIES**

BUREAU VERITAS CERTIFICATION

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REVISION No. **07**



## VALIDATION REPORT

Date of first issue: <b>27/01/2012</b>	Organizational unit: <b>Bureau Veritas Certification Holding SAS</b>
Client: <b>Standard Bank Plc</b>	Client ref.: <b>Mr. Geoff Sinclair</b>

## Summary:

Bureau Veritas Certification has made the validation of the Standard Bank Energy Efficient Commercial Lighting Programme of Activities, project of Standard Bank Plc located in 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 IIC "Demand-side energy efficiency activities for specific technologies" version 13.0 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Report No.: <b>BVC/KENYA-val/0003/2011</b>	Subject Group: <b>CDM</b>
Project title: <b>Standard Bank Energy Efficient Commercial Lighting Programme of Activities</b>	
Work carried out by: <b>Andrew Kinyanjui – Team Leader James Chirchir – Team member George Wambua - Team member</b>	
Internal Technical Review carried out by: <b>Mr. Tim Wang Wei</b>	
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## Indexing terms

Work approved by:

Mr. Flavio Gomes

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## 1 INTRODUCTION

Standard Bank Plc has commissioned Bureau Veritas Certification to validate its CDM project Standard Bank Energy Efficient Commercial Lighting Programme of Activities (hereafter called “the project”) to be located within the Republic of South Africa, Republic of Botswana and the Republic of Kenya.

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

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 project design document, the project'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 project design.

### 1.3 Validation team

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

FUNCTION	NAME	CODE HOLDER	TASK PERFORMED*
Team Leader	Andrew Kinyanjui	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input checked="" type="checkbox"/> RI
Team member	James Chirchir	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI
Team member	George Wambua	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI
Technical Specialist	N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI



<b>Financial Specialist</b>	N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
<b>Internal Technical Reviewer (ITR)</b>	Mr. Tim Wang Wei	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input checked="" type="checkbox"/> 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(EB55 Annex38). 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 Project Design Documents (CDM SSC-POA-DD) submitted by Standard Bank Plc and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for Completing the Project Design Document (CDM-PDD), 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, Standard Bank Plc revised the CDM SSC-POA-DD version 3.0 and generic CDM SSC-CPA-DD version 3.0 and resubmitted it on 28/12/2012.

The validation findings presented in this report relate to the project as described in the CDM SSC-POA-DD version 3.0.

## 2.2 Follow-up Interviews

On 15-16/08/2011 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 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 Plc	<ul style="list-style-type: none"> <li>➤ Project Design and implementation</li> <li>➤ Calibration and operation</li> <li>➤ Monitoring Plan and management procedures</li> <li>➤ Monitoring data</li> <li>➤ GHG Calculation</li> <li>➤ Data uncertainty and residual risks (QA/QC)</li> <li>➤ Environmental Impacts</li> <li>➤ Compliance with National Laws and Regulations</li> </ul>
Phillips Lighting South Africa	<ul style="list-style-type: none"> <li>➤ Efficient lighting technology.</li> <li>➤ Market penetration and challenges of this technology</li> </ul>
Energy Partners	<ul style="list-style-type: none"> <li>➤ Energy management programmes</li> <li>➤ Adoption of energy efficient technology</li> </ul>

## 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 under 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 03 Corrective Action Requests (CARs) and 23 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 VVM paragraph





### 3.1 Approval

A letters of approval have been received (**refer Category 2 /23/-/26/**) and the following support documentation:

Letter of approval of PoA from DNA South Africa was received directly from the coordinating/managing entity(CME) dated 11<sup>th</sup> April 2012 confirming that South Africa has ratified Kyoto Protocol and participates voluntarily in this proposed CDM activity.

Letter of approval of PoA from DNA Botswana was received directly from the CME ref no: MET/WMO/RDD/3066/7C V (7) dated 4<sup>th</sup> June 2012 confirming Botswana has ratified Kyoto Protocol on 8<sup>th</sup> August 2003 and participates voluntarily in this proposed CDM activity. In addition, the letter authorizes Standard Bank Plc voluntary participating in the PoA as the coordinating/managing entity and confirms the contribution to Botswana's Sustainable development.

Letter of approval of PoA from DNA Kenya was received directly from the CME ref no: NEMA/10/3/VOL.X dated 4<sup>th</sup> May 2012 confirming Kenya is a party to Kyoto Protocol and participates voluntarily in this proposed CDM activity. In addition, the letter authorizes Standard Bank Plc voluntary participating in the PoA as the coordinating/managing entity and confirms the contribution to Kenya's Sustainable development.

Letter of approval also been obtained from UK DNA ref no: EA/SB/14/2012 dated 28<sup>th</sup> August 2012 confirming that the UK ratified the Kyoto Protocol on 31<sup>st</sup> May 2002, participates voluntary in the CDM and authorized Standard Bank Plc participates in this CDM project.

Bureau Veritas Certification received all the letters from the project participants and does not doubt its authenticity.

The title and contents of the letters of approval refer to the precise proposed CDM project activity title in the PDDs being submitted for registration.

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

### 3.2 Participation

The participation for the coordinating/managing entity has been approved by a Party of the Kyoto Protocol.

The validation team concluded this by referring to UNFCCC website at <http://maindb.unfccc.int/public/country.pl?country=ZA>





<http://maindb.unfccc.int/public/country.pl?country=KE>

<http://maindb.unfccc.int/public/country.pl?country=BW>

<http://maindb.unfccc.int/public/country.pl?country=GB>

### 3.3 Project design document

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

- PoA – DD Standard Bank Energy Efficient Commercial Lighting Programme of Activities version 2.0 dated 13/6/2012 (sets a framework for the implementation of the PoA and unambiguously defining a CPA under the PoA)
- CPA Template Standard Bank Energy Efficient Commercial Lighting Programme of Activities CPA-Template (template for use by eligible CPA implementers/partners) dated 18 Jan 2012

The project design was described using the appropriate template (SSC-CDM SSC-POA-DD document version 2.0 and SSC-CDM 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-CDM 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 PDD complies with the latest forms of the guidance documents for completion of PDD.

### 3.4 PoA description

The small-scale programme of Activities (SSC-PoA) consists of series of small scale CDM projects activities (SSC-CPAs) implemented in collaboration with commercial and public building owners and occupiers across South Africa, Botswana, and Kenya. Standard Bank Plc will act as the Coordinating/Managing Entity (CME) for the PoA. The CME will work with participating organisations in lighting technology to design and implement different lighting technologies and financing solution to allow for the low-cost uptake of energy efficient lamps and luminaires for commercial and public building lighting applications. The project scope



will range from “Up-lamping” i.e. simply exchanging existing comparatively inefficient lamps with new efficient retrofit equivalents to refurbishment which will allow for more extensive upgrading and achievement of greater efficiencies through the replacement of luminaires. In section A.4.2.1 of the PoA-DD, the PP has included a list of eligible technologies for the proposed PoA.

The main objective of the PoA is optimization of energy use through the replacement of baseline inefficient lamps e.g tubular fluorescent lamps with efficient; lamps, luminaires, ballasts, design and efficient use and ongoing maintenance. Lighting types to be installed under the PoA include, but are not limited to, tubular (T5 or T8) and compact fluorescent lamps, LED down lights and a range of speciality commercial lamps.

The boundary of the PoA is the geographical area of the host parties as listed above within which all the CPAs included in the PoA occur. The PoA will comprise CPA's each with an ex-ante estimated energy savings not exceeding of 60 GWh per year.

The project is expected to generate annual average estimated emission reductions of 2422.768 tCO<sub>2</sub>e in the first CPA of the PoA during the 10 year non-renewable crediting period.

The DOE hereby confirms that the project description in POA- DD document reference 2.0 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 coordinating/managing entity and stated in the CDM SSC-POA-DD. The CME has developed a CPA inclusion management system version 1.0(ref category 2/13/) which details the process of inclusion of a CPA to PoA and details all relevant aspects in line with the requirements of EB65 Annex 3 para 17 which includes a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies; (b) Records of arrangements for training and capacity development for personnel; (c) Procedures for technical review of inclusion of CPAs; (d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA); (e) Records and documentation control process for each CPA under the PoA; (f) Measures for continuous improvements of the PoA management system; (g) Any other relevant elements. The CME has 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 monitoring plan, training plan, PoA managementm 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 (version 01.0). The criteria for inclusion of a CPA have been identified in section A.4.2.2 of the PoA DD as;

#	Eligibility Criteria	Evaluation criteria
1	The geographical boundary of the SSC-CPA is located within the geographical boundary specified in section A.4.1.2 of the CDM SSC-POA-DD.	The CPA implementer will provide evidence that the SSC-CPA to be included is located within the geographical boundary specified in section A.4.1.2 of the CDM SSC-POA-DD.
2	The SSC-CPA complies with the established procedures for avoiding double counting set out in the CDM SSC-POA-DD and CDM SSC-CPA-DD (generic).	The SSC-CPA will comply with the following established procedures for avoiding double counting: <ul style="list-style-type: none"> <li>– check of CDM database to confirm project is not registered as an individual CDM activity or part of another registered PoA;</li> <li>– CME will confirm with building owners and occupiers participating in the proposed SSC-CPA that they are not participating in any other existing or proposed CDM project activity; and</li> <li>– unambiguous identification of the location and LPC Group classification of lighting systems according to the monitoring plan procedures.</li> </ul>
3	The SSC-CPA utilises lamps and other lighting equipment specified in section A.4.2.1 of the CDM SSC-POA-DD. The SSC-CPA employs lighting technologies/measures that comply with the following requirements: <ul style="list-style-type: none"> <li>– meets relevant local or international performance standards as set out in the current version of the Standard Bank Energy Efficient Commercial Lighting Programme of Activities <i>Lighting Equipment Quality Requirements</i>;</li> <li>– for each replaced lighting appliance/equipment/system the rated capacity or output or level of service (e.g., lumen or lux output) will not be significantly smaller (maximum - 10%) than the baseline or significantly larger (maximum + 50%) than the baseline.</li> </ul>	The SSC-CPA will utilise lamps and other lighting equipment specified in section A.4.2.1 of the CDM SSC-POA-DD. The SSC-CPA will confirm that lighting technologies/measures comply with the following requirements: <ul style="list-style-type: none"> <li>– meets relevant local or international performance standards as set out in the current version of the Standard Bank Energy Efficient Commercial Lighting Programme of Activities <i>Lighting Equipment Quality Requirements</i>;</li> <li>– for each replaced lighting appliance/equipment/system the rated capacity or output or level of service (e.g., lumen or lux output) will not be significantly smaller (maximum - 10%) than the baseline or significantly larger (maximum + 50%) than the baseline.</li> </ul>



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4	The start date of the SSC-CPA is to be confirmed with documentary evidence.	The start date of the SSC-CPA will be confirmed through the provision of one of the following forms of documentary evidence: <ul style="list-style-type: none"> <li>– the date of signing an agreement with the CME;</li> <li>– the date on which an order for lighting equipment is placed; or</li> <li>– the date on which lights are installed.</li> </ul>
5	The SSC-CPA follows the baseline and monitoring methodology AMS IIC “Demand-side energy efficiency activities for specific technologies” and satisfies all applicability and other requirements set out in the methodology.	The SSC-CPA will confirm that the baseline and monitoring methodology AMS IIC “Demand-side energy efficiency activities for specific technologies” has been used and satisfies all applicability and other requirements set out in the methodology.
6	The SSC-CPA is additional because it has demonstrated the presence of one or more of the barriers listed in section E.5.1 of the CDM SSC-POA-DD.	The CPA will demonstrate additionality by identifying at least one of the barriers that are listed in section E.5.1 of the CDM SSC-POA-DD.
7	If applicable, the SSC-CPA has satisfied all requirements of the local Host Party for the completion of an environmental impact assessment.	The CPA will provide evidence that an environmental impact assessment has been conducted in cases where it is required by the Host Country. If an environmental impact assessment is not required by the Host Party, the SSC-CPA will provide the required evidence.
8	A local stakeholder consultation process has been undertaken and the results are provided in the CDM SSC-CPA-DD.	The SSC-CPA will provide evidence that local stakeholder consultation was conducted at a CPA level and the details of the meeting will be provided in the CDM SSC-CPA-DD.
9	The SSC-CPA involves the installation of energy efficient lighting in commercial buildings.	The SSC-CPA will confirm that the installation of energy efficient lighting is implemented within commercial buildings.
10	The SSC-CPA will follow the sampling plan as described in section A.4.4.2 of the CDM SSC-POA-DD.	The SSC-CPA will confirm that the sampling plan is implemented as per section A.4.4.2 of the CDM SSC-POA-DD.
11	The aggregate ex-ante estimated energy savings by the SSC-CPA do not exceed the equivalent of 60 GWh per year.	The SSC-CPA will confirm that the aggregated ex ante energy savings do not exceed the equivalent of 60 GWh per year.
12	The SSC-CPA satisfies the latest version of de-bundling rules for PoA.	The CPA will demonstrate that it satisfies the latest version of de-bundling rules for PoA.
13	Any funding from Annex I parties does not result in a diversion of official development assistance (ODA).	The CME will confirm that any funding from an Annex I party involved in the implementation of the SSC-CPA does not result in a diversion of official development assistance (ODA).

Complying with **Para.167/VVM**, Para.14,15 and 16 of EB65 Annex 3, Bureau Veritas Certification hereby confirms that the specified eligibility criteria in the CDM SSC-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, and the eligibility criteria are



sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

### 3.7 Baseline and monitoring methodology

#### 3.7.1 Applicability of the selected baseline and monitoring methodology

According to the CDM SSC-POA-DD, the CPA under the PoA will apply the approved small scale methodology AMS II C “Demand side energy efficiency activities for specific technologies” version 13.

As set out in the fourth eligibility criteria for inclusion of a CPA into the PoA (section A.4.2.2 of PoA DD), all the CPAs shall satisfy all applicability and other requirements set out in the methodology which includes condition that an SSC-CPA comprises activities that encourage the adoption of energy-efficient lighting equipment in commercial buildings; and for each replaced lighting appliance/equipment/system, the rated capacity or output or level of service (e.g., lumen or lux output) is not significantly smaller (maximum - 10%) than the baseline or significantly larger (maximum + 50%) than the baseline among other conditions.

#### 3.7.2 Baseline identification

The proposed programme of activities SSC-CDM SSC-POA-DD section A.4.3, there are realistic alternative scenarios to the proposed activity i.e either for the continuation of business-as-usual (Continued use of existing inefficient lighting technologies by commercial building owners and occupiers (the baseline scenario)) or the autonomous uptake of more energy efficient lighting systems in commercial buildings. The DOE validation team performed on site visit and conducted interviews with various stakeholders to validate the baseline scenario and to cross check the information provided in the CDM SSC-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 project uses the methodology tool "Tool to calculate the emission factor for an electricity system version 02.2.1" calculate the grid emission factor. The algorithms and/or formulae used in the projects documents by the PP were examined against the stepwise algorithms and/or formulae of the methodology tool for the calculation of the project emissions, baseline emissions, leakage emissions and the emissions reduction. It is concluded that tool formulae and/or algorithms was appropriately applied by the PP.

To assess algorithms and/or formulae used to determine emission reductions, as outlined in the correspondent paragraph (89) of the protocol, detail and transparent spreadsheet calculation in excel file for first real case CDM SSC-CPA-DD is provided by the consultant for DOE validation.

For baseline emissions calculations, the following equation is used

$$BE_y = E_{BL,y} * EF_{CO_2, ELEC,y}$$

For the first CPA( of the PoA, parameters determined ex-ante :

No.	Parameters	Value	Means of Validation
1	$E_{PJ,y} = \sum_k (n_k * p_k * o_k) / (1 - l_y)$		
LPC Group IV)	$n_k$	34288	Verified calculation on the excel spreadsheet provided and found ok
	$p_k$	25.40	Verified calculation on the excel spreadsheet provided and found ok
	$o_k$	3938	Verified calculation on the excel spreadsheet provided and found ok
	$l_y$	8.3%	Verified Eskom average annual grid losses
LPC Group V	$n_k$	2200	Verified calculation on the excel spreadsheet provided and found ok
	$p_k$	25.73	Verified calculation on the excel spreadsheet provided and found ok
	$o_i$	4595	Verified calculation on the excel spreadsheet provided and found ok
	$l_y$	8.3%	Verified Eskom average annual grid losses
LPC Group VIII	$n_k$	1700	Verified calculation on the excel spreadsheet provided and found ok
	$p_k$	25.78	Verified calculation on the excel spreadsheet provided and found ok
	$o_k$	8760	Verified calculation on the excel spreadsheet provided and found ok





	$I_y$	8.3%	Verified Eskom average annual grid losses
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Project emission calculation for the first CPA of the PoA, the following equation is used:

$$PE_y = E_{PJ,y} * EF_{CO2,y}$$

Since all the lighting equipments to be replaced will be scrapped, leakage emissions are considered zero.

Based on the above assessment, the DOE hereby confirms that:

- (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- (c) All values used in the PDD are considered reasonable in the context of the proposed 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 PDD.

The project participants provided the DOE with excel spreadsheets used in the calculations of project emissions, baseline emissions, leakage emissions and the emissions reduction. The project participant also provided the references for the data and parameters used in the equations. The DOE cross-checked the references provided and validated the data and parameters provided and were found accurate. In addition, through DOE own research work on the internet, other data and parameters used in the equations were corroborated independently of those provided by the project participant.

### 3.8 Additionality of PoA

#### 3.8.1 Start date of the PoA/CPA

Bureau Veritas Certification confirms that the start date of any CPA is not prior to the commencement of the validation of the PoA, which is the date of the CDM SSC-POA-DD is first published for global stakeholder consultation, 19/07/2011.

#### 3.8.2 Demonstration of additionality of the PoA as a whole

The additionality of the project was done at the PoA level.

Attachment A to Appendix B of the simplified modalities and procedures of small scale CDM projects activities was used to demonstrate additionality of the PoA project activities.





As per Attachment A to Appendix B Version 08(EB 63 Annex 24), the project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the following barriers: Investment barrier, technological barrier, barrier due to prevailing practice and Other barriers.

Access to finance barriers, prevailing practice and technology barriers, lack of knowledge and split incentives are the major barriers that hinders the adoption of more efficient lighting technologies in the host parties countries.

The existence of barriers above was confirmed from the interviews performed during the validation site visit and the sectoral scope knowledge of the DOE validators

### 3.8.3 Investment Analysis(114)

No investment analysis was done by the project participant since additionality of the project was done using barrier analysis.

### 3.8.4 Barrier Analysis(118)

The following barriers have been presented to show that project activity is not the likely baseline scenario and that emissions reductions from the project are additional.

**Investment Barrier:** the project activity cannot access appropriate capital without consideration of the CDM revenues, and as such a financially more viable alternative to the project activity would have led to higher emissions. Despite energy efficiency's recognised advantages as an investment with immense climate change mitigation benefits, most of energy efficiency opportunities remain unrealized due largely to the significant "investment gap" that exists between the theoretical returns that energy efficiency investments can provide, and the limited capital that is available to make those investments.

In the context of commercial and public building energy efficient lighting, investment barriers come in two interrelated forms which the PoA helps to overcome: A lack of available capital to make required investments in energy efficiency; and the perception that energy efficiency investments are high-risk which discourages deployment of any available capital.

**Capital Availability:** The high up-front cost of energy efficient lighting presents a significant barrier to building owners and occupiers wishing to switch their lighting to more efficient technologies. Undertaking a whole-of-building retrofit represents a considerable up front investment when compared to the progressive maintenance and replacement of existing lights over time. Each SSC-CPA under the PoA will require that a large number of functional lamps be replaced before the end of their useful lifetimes to avoid additional electricity consumption and emissions. Without the PoA in place it is unlikely that commercial building owners and occupiers will undertake such large scale investments, particularly given that such investment is not targeted at increasing their production or business growth, but rather at reducing costs over time in an area that is



unlikely to be core to their day-to-day operations. The PoA will address access to capital barriers by providing an integrated solution for the purchase of lights, offering organizations reduced costs and attractive payment terms through leveraging carbon revenues. The PoA financing structure removes the up front costs of the lighting replacements, enabling building owners to pay off the lights over time out of the energy cost savings they realize. CER revenues will enable the project proponents to provide favourable financing terms and lower lamp and equipment pricing for the participating building owners and occupiers, thereby greatly improving the access to finance for the large-scale implementation of energy efficient lighting.

*Risk Perceptions:* Investments in energy efficient lighting equipment not only face barriers due to a lack of available capital, but also due to the perception that such investments are high risk. Uncertainty regarding realisable cost savings, and therefore return on investment, is a major reason for companies avoiding investment in energy efficiency. In such cases a commercial building owner and/or occupier may have access to finance, but choose not to invest it in energy efficient lighting because of concerns that it will not deliver costs savings as promised, or because they choose to invest the money elsewhere. The PoA helps to overcome these information and perception barriers which impede investment in energy efficient lighting equipment by providing a consolidated source of information, technology and services.

Based on review of documentary evidence referenced by the project participant, lighting cost comparison analysis of whole-building retrofit versus business-as-usual scenario submitted to the DOE(ref :category 2 /29/) and DOE's sectorial scope knowledge, the barrier is deemed real.

**Technology Barriers:** a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions. Many of the energy efficient lighting technologies offered under the PoA may be relatively new, with a low level of awareness amongst consumers and building managers, and even lower levels of operating experience. The innovative nature of some of the lighting technologies, among other factors creates strong preferences for continued utilization of existing lighting systems and technologies.

Building owners, occupiers and facility maintenance personnel may have a limited understanding of the benefits of energy savings on lowering whole-of-life lighting costs, and as such continue to purchase and use existing, inefficient lighting technology which is perceived as being cheaper, familiar and risk free. Because of the poor understanding of the benefits of energy efficiency, building owners, occupiers or managers may not easily identify the savings associated with new lighting technologies. In addition, the challenge of monitoring and quantifying realized cost savings and the potential risk of poor technology performance mean that the ongoing use of existing lighting technologies is highly likely. Based on the interviews conducted during validation site visit and DOE's knowledge of the low extend of use of the energy efficient lighting systems in the region, the barrier is deemed real.

**Barrier due to Prevailing Practice:** prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions.



There is persistent preference of building owners, occupiers and facility managers to continue to use familiar, cheaper but more inefficient lighting equipment. In some countries covered by the PoA, residential energy lighting projects are being implemented although these projects are clearly different to the proposed PoA because the PoA targets commercial lighting efficiency not the residential lighting efficiency. A summary of such initiatives have been discussed in section A.4.3 of PoA DD. The DOE has validated this barrier based on interviews with local stakeholders during validation site visit and knowledge of the current practices in Kenya, which is covered by the PoA.

**Other barriers; Split Incentives:** Split incentives occur when two participants in an economic exchange have different or even competing goals or incentives. In the context of energy efficient lighting in commercial buildings, such split incentives occur when building owners are required to pay for building equipment upgrades, but it is tenants that are required to pay for electricity bills. In this situation, the entity making the investment (landlord) receives no benefit (energy cost savings), because such benefits accrue to the building occupants (tenants). Tenants are also unlikely to make the investment themselves because they ultimately will not own the equipment installed in the building, and may leave the building before enough energy savings have accrued to pay for the initial investment in efficient lighting equipment. The barrier is valid based on DOE's knowledge and research of the common practice with respect to building occupancy in the region, where, in most cases, the tenants pay for their own usage of utilities, which include electricity. In most cases, captive power generation are owned and run by the tenants. However, in few instances where the landlord owns and runs the power generation, the extra cost and any savings from fuel consumption will be accrued to the landlord.

The project participant has also included an eligibility criteria for demonstration of additionality (Eligibility criteria number 6 in the PoA DD) for a SSC-CPA. A SSC-CPA will be required to demonstrate the presence of one or more of the barriers listed in section E.5.1 of the CDM SSC-POA-DD in demonstrating additionality. The discussion on the presence of such barriers will be validated by DOE in the CPA. This arrangement is deemed appropriate by the validation team.

The DOE hereby confirms that the barrier analysis performed is credible.

### 3.9 Monitoring plan

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

The ex-post monitoring methods, frequency of monitoring and measurement equipments for project parameters as described in the projects design documents are acceptable to methodology AMS II C version 13.0. 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 equipments installed and replaced
- b) Lighting category
- c) Wattage
- d) Location
- e) Classification of LPC group
- f) Energy use data
- g) Operating hour data

At the PoA level, data to be monitored are;

- a) Metering data collected from the Project Sample Group last point of control (LPCs) relating to the on-going usage of project lighting equipment during each monitoring period.
- b) Data obtained from periodic Project Cross-Check Group LPCs indicating the proportion of project lighting equipment operating in each CPA during each monitoring period.

To obtain unbiased and reliable estimates of the mean value of parameters used in the calculations of greenhouse gas emission reductions, sampling adopted by the PoA complies with the Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (EB65, Annex 2 version 2). A representative sample of the Last Point of Control (LPC), the portion of an electrical circuit that serves a set of lights that is controlled on a single switch, will be monitored at the PoA level. In this arrangement, all of the lights on the LPC are operated the same number of hours per year. The sampling approach consists of grouping the population of LPCs into “usage groups” based on operating hours from which samples are drawn. Usage groups are subsets of the entire population of LPCs that fall within certain average operating hours groups as defined in section A.4.4.2 of the PoA DD. This grouping technique subdivides a large, heterogeneous population of lamps into smaller groups that are more homogeneous. Since the usage groups are based on an a close range of average operating hours of lighting equipment, equivalent to the operating hours of the LPC, the classification is deemed appropriate by the DOE.

Initially, the PP has classified the LPC into 8 usage groups based on Average operating hours per day, i.e. Group I through Group VIII for the first CPA. These groups will be increased or decreased or reclassified depending on the monitoring results in the subsequent monitoring periods. Stratified random sampling method has been chosen and this is deemed adequate by the DOE since the populations of the lighting systems vary considerably in terms of operation hours hence it is better to group elements into relatively homogeneous subpopulations and sample each subpopulation independently. A representative of each LPCs under each LPC group, project sample group (PSG), will be monitored. This is to ensure that a representative sample of all participating buildings and lighting systems in the PoA are monitored.



Sample size for the PSG has been determined at the PoA level based on 95/10 confidence/precision as outlined in para 19 of the “Standard for sampling and Surveys for CDM project Activities and Programme of activities (version 02.0)” The formulae applied were reviewed by the DOE is deemed correct and the resulting sample size is adequate to meet the minimum confidence and precision requirements.

During periodic surveys of non-metered sample of LPCs, random LPC numbers from the project database will be generated for each LPC group under each CPA until the number of lamps controlled by each LPC group corresponds to at least 271 lamps. The sampling size for PSG is 107 lamps. The objective will be to measure the proportion of equipments installed under the programme that are still in operations. However, if there are less than 271 lamps in a group, then all the lamps in the group will be monitored.

The CME requires that all SSC-CPA implementers must conduct a detailed audit of target buildings to determine the number and type of lighting technologies to be retrofitted as part of the project. The information is then recorded in the PoA database and presented to the DOE at the time of CPA inclusion. This requirement has been fulfilled by the implementer for the first CPA under this PoA, as per records of lighting audit reviewed during the site visit by the DOE.

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 a qualified and experienced M & V experts approved by the CME who will oversee the collection and analysis of the data collected. The arrangement is acceptable to the DOE.

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 equipments were in line with the methodology applied.

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 project participants have undertaken an analysis of environmental impacts in section C.2 of the PoA DD but environmental impact assessment was not done since it was not a requirement of the host countries where the PoA will be implemented. In the Republic of South Africa, this was verified from interviewed conducted during site visit and crossed checked with records of activities that requires environmental impact assessments. The DOE received a letter from the National Environment Management Authority(NEMA), Kenya, reference number NEMA/5/2/vol.23 dated 27<sup>th</sup> April 2012(ref category 2/27/) indication that the proposed project activity does not need to carry out an EIA given that its implementation will have minimal/insignificant impacts. In addition,





the PP provided a letter reference number DEA/BOD/ENE/ELE(2) dated 19<sup>th</sup> Oct 2011 to the DOE from Department of environmental Affairs, Botswana(Ref:Category 2/28/), indicating that the proposed project activity is exempted from detailed EIA study.

### **3.11 Local stakeholder consultation**

A stakeholder consultation process will be undertaken at CPA level for each CPA included in the PoA.

## **4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS**

The PDD using methodology AMS II.C was webhosted on the UNFCCC for global stakeholders' comments from 19 Jul 11 to 11 Aug 11 as per CDM requirements, <http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/DV2KE3HA21Y7XW6W4UIB/SVZ25375N6/view.html>

No comments were received during this period

## **5 VALIDATION OPINION**

Bureau Veritas Certification has performed a validation of the Standard Bank Energy Efficient Commercial Lighting Programme of Activities located within the boundaries of the republic of South Africa, Botswana and 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 participant/s used the latest tool for demonstration of the additionality. In line with this tool, the PDD provides technological and other barriers to determine that the project activity itself is not the baseline scenario.

By scaling up the installation of energy efficient lighting technologies and systems in non-residential, commercial and public buildings across the countries of the project, the project is likely to result in reductions of GHG emissions partially. An analysis of technological barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.



The review of the project design documentation (SSC-CDM SSC-POA-DDversion 2.0) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the 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 'Standard Bank Energy Efficient Commercial Lighting Programme of Activities' as CDM project activity.





## 6 REFERENCES

### Category 1 Documents:

Documents provided by Standard Bank Plc that relate directly to the GHG components of the project.

- /1/ Standard Bank Energy Efficient Commercial Lighting Programme of Activities SSC-CDM SSC-POA-DD ver.2.0 dated 13/06/2012
- /2/ Standard Bank of South Africa – Head Office lighting refurbishment – SSC-CDM SSC-CPA-DD CPA 0001doc. ver.2.0 dated 13/06/2012
- /3/ Standard Bank Energy Efficient Commercial Lighting Programme SSC-CDM SSC-CPA-DD Template document
- /4/ AMS II C Demand side energy efficiency activities for specific technologies versio 13.0
- /5/ Standard for Sampling and Surveys for CDM project Activities and programme of Activities (EB 65, Annex 2)
- /6/ Tool to calculate emissions factor for an electricity system version 2.2.1

### Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

- /1/ Email print outs on local stakeholder consultations
- /2/ Copy of local stakeholder advert in the business report supplement
- /3/ Report on the public participation sessions for the PoA
- /4/ Invitation letters for Public Participation meeting
- /5/ Photographs of Public Participation meeting
- /6/ List of attendees at Standard Bank efficient lighting project stakeholder consultation
- /7/ Presentations of Standard Bank efficient lighting project stakeholder consultation
- /8/ South Africa Grid Emission Factor(GEF) tool
- /9/ 1 simmondsPwrProfile-RAMPcalculations
- /10/ CER calculations spreadsheet
- /11/ Footnotes and sources explanatory notes
- /12/ The PoA Lighting quality guidance notes
- /13/ CPA inclusion management system
- /14/ Letter on EIA requirement from South Africa environment department
- /15/ Environmental impact calculations
- /16/ Lighting purchase orders
- /17/ Guidelines for determining of debundling under programme of activities v3.0(EB 54)
- /18/ Standard for development of eligibility criteria for inclusion of a project activity



- as a CPA under the PoA(v1.0, EB 63)
- /19/ Classifications on the consideration of national and/or sectoral policies and circumstances in baseline scenario V2
  - /20/ Guidelines for assessing the additionality of micro-scale project activities(EB 60, annex 25)
  - /21/ Clean development mechanism validation and verification manual version 01.2
  - /22/ Attachment A to appendix B
  - /23/ LoA South Africa
  - /24/ LoA Botswana
  - /25/ LoA Kenya
  - /26/ LoA UK
  - /27/ Compliance letter SB commercial lighting PoA Kenya
  - /28/ SBELPoA Botswana EIA waiver
  - /29/ Lighting costs comparison analysis

**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/ Gabrielle Henry(Cool nrg)
- /2/ Praveen Moodley(Standard Bank of South Africa)
- /3/ Madimetja Mogoba(Standard Bank of South Africa)
- /4/ Megan Louw(Phillips Lighting South Africa)
- /5/ Erik Wandrag (Energy Partners)
- /6/ Lawrence Cole-Morgan(Standard Bank of South Africa)



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

### 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.

### Team Member – James Chirchir

James Chirchir – holds a Bachelor's degree in Chemical and Process Engineering and had 4 years experience in manufacturing before joining Bureau Veritas Certification. He is a Quality Management System, Environment Management System and Energy Management System Lead Auditor and a trained CDM Verifier. He has conducted at least 5 CDM projects.

### Team member – George Wambua

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 at least 4 CDM projects.

### Internal 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.

## VALIDATION REPORT

## APPENDIX A: STANDARD BANK PLC 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
<b>1. Approval</b>			<b>COUNTRY A</b> <i>Republic of South Africa</i>	<b>COUNTRY B</b> <i>Kenya</i>	<b>COUNTRY C</b> <i>Botswana</i>		
1.1. Have all Parties involved approved the project activity?	VV M	44	Yes	Yes	Yes	CAR 1.	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 participant or directly from the DNA)	VV M	45	Yes	Yes	Yes	Pending CAR 1	OK
1.3. Does the letter of approval from DNA of each Party involved:	VV M	45					-
1.3.1. confirm that the Party is a Party of the Kyoto Protocol?	VV M	45.a	Yes	Yes	Yes	Pending CAR 1	OK
2. confirm that participation is voluntary?	VV M	45.b	Yes	Yes	Yes	Pending CAR 1	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?	VV M	45.c	Yes	Yes	Yes	Pending CAR 1	OK
1.3.4. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VV M	45.d	Yes	Yes	Yes	Pending CAR 1	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS			Draft Concl	Final Concl
1.4. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VV M	46	Yes	Yes	Yes	Pending CAR-1	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?	VV M	47	Yes	Yes	Yes	OK	OK
1.6. Is there doubt with respect to the authenticity of the letter of approval?	VV M	48	No	No	No	OK	OK
1.7. If yes, was verified with the DNA that the letter of approval is authentic?	VV M	48	N/A	N/A	N/A	OK	OK
<b>2. Participation</b>			<b>PP1 South Africa</b>	<b>PP2 kenya</b>	<b>Botswana</b>		
2.1. Have all project participants been listed in a consistent manner in the project documentation?	VV M	51	Yes.			Ok	OK
2.2. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VV M	51	Yes			Pending CAR-1	Ok
2.3. Are the project participants listed in tabular form in section A.3 of the PDD?	VV M	52	Yes			CL-1.	OK
2.4. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VV M	52	Yes, information in section A.3 is consistent with the contact details provided in annex 1 of the PDD			Ok	OK
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	VV M	52	Yes			OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
document for each of the project participants)						
2.6. Are any entities other than those approved as project participants included in these sections of the PDD?	VV M	52	No		OK	Ok
2.7. Has the approval of participation issued from the relevant DNA?	VV M	53	Yes			OK
2.8. Is there doubt with respect to (g) above? I	VV M	53	No			OK
2.9. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VV M	53	N/A			Ok
2.10. Has it been checked that if there is public funding for the programme from parties in the annex I, this funding shall not be a diversion of official development assistance			No public funding will be used for the PoA		OK	Ok
<b>3. Project design document</b>						
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?	VV M	55	Yes, PDD template used is (CDM SSC-POA-DD) - Version 01 and is the latest template and guidance from the CDM Executive Board		Ok	OK
3.2. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VV M	56	Yes. The PDD is in accordance with the applicable CDM requirements for completing the PDD		OK	OK
3.3. Is the boundary of the PoA clearly defined			Yes. The PoA will be located within the boundaries of the Republic of South Africa,		OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Kenya and Botswana		
3.4. Does the programme design engineering reflect current good practice?			The project design is the replacement of low efficiency lighting systems which offer the perceived advantages of being lower cost and lower risk with efficient lighting systems and reflects current good practice.	OK	OK
3.5. Does the programme makes provisions for meeting training and maintenance needs?			Yes. These provisions have been made in the project quality control and assurance procedures		OK
<b>4. Project description</b>					
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?	VV M	58	<p>Yes, The program involves the installation of energy efficient lighting equipment in public and commercial buildings in Republics of South Africa, Botswana and Kenya. This will be implemented in collaboration with commercial and public building owners and occupiers in the three countries. The Coordinating/managing entity (CME), the Standard Bank Plc will work with lighting suppliers in the design, engineering, manufacture and financing solutions to allow for the low-cost uptake of energy efficient lamps and luminaires for commercial and public building lighting.</p> <p>The Programme of Activities (PoA) will consist of a series of SSC-CPAs implemented in collaboration with commercial and public building owners and occupiers across South Africa with Standard Bank of South Africa Ltd will provide an open platform for different lighting technology and service suppliers to</p>	Ok	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			participate in the PoA by developing their own SSC-CPAs. The CME will work with participating organisations to design and implement a technology and financing solution to allow for the low-cost uptake of energy efficient lamps and luminaires for commercial and public building lighting applications		
4.2. Is the description of the proposed CDM project activity as contained in the PDD:	VV M	59			
sufficiently covering all relevant elements?	VV M	59	Yes, Yes. The description of the proposed CDM project activity, Standard Bank of South Africa – Head Office lighting refurbishment (SBSA-EECL-CPA-0001 is as contained in the PDD.	OK	OK
2. accurate?	VV M	59	Yes	OK	OK
4.2.3. providing the reader with a clear understanding of the nature of the proposed CDM project activity?	VV M	59	Yes	Ok	Ok
4.3. Is the proposed CDM project activity in existing facilities or or utilizing existing equipments?	VV M	60	The project will used existing energy efficient lamps where applicable but new designed energy efficient lamps will also be used.	Ok	Ok
4.4. Does the proposed CDM project activity involve the alteration of an existing installation or	VV M	63	Yes, The SSC-CPA involves lighting systems upgrades in the corporate offices and car park of	Ok	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
process?			Standard Bank of South Africa Ltd in Johannesburg. The lighting equipment will be installed in five different buildings associated with the company's headquarters. The SSC-CPA will involve the replacement of over 30,000 lamps. These baseline lamps will be replaced by a combination of highly efficient linear fluorescent lamps, LED downlights and LED lamps. In addition to replacing lamps, the CPA will also involve the replacement and refurbishment of luminaires		
4.5. If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VV M	63	Yes. The CME will work with participating organisations to design and implement a technology and financing solution to allow for the low-cost uptake of energy efficient lamps and luminaires for commercial and public building lighting applications.	OK	OK
<b>5. Baseline and monitoring methodology</b>					
<b>5.1. General requirement</b>					
a. Do the the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VV M	65	Yes, project employs AMS.II.C: Demand-side energy efficiency activities for specific technologies version 13 valid from 31/7/09 onwards	Ok	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Is the selected methodology applicable to the project activity?	VV M	66	The methodology is applicable to SSC-CPAs under the proposed PoA because these projects concern the installation of energy efficient lighting equipment in commercial buildings, creating demand-side energy savings and reductions in greenhouse gas emissions.	OK	OK
c. Had the PP correctly applied the selected methodology?	VV M	66	Yes. The methodology selected was correctly applied by the PP	OK	OK
d. Had the selected methodology been correctly applied with respect to project boundary?	VV M	67	Refer to 5c		-
e. Had the selected methodology been correctly applied with respect to baseline identification?	VV M	67	Refer to 5d		-
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VV M	67	Refer to 5e		-
g. Had the selected methodology been correctly applied with respect to additionality?	VV M	67	Refer to 6		-
5.1.1. Is Baseline the Continuation of the current situation;	VV M	67	Refer to 5d		-
<b>5.2. Applicability of the selected methodology to the project activity</b>					
i. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity including that the used version is valid?	VV M	68	Yes, project employs AMS.II.C: Demand-side energy efficiency activities for specific technologies version 13 valid from 31/7/09 onwards	Ok	OK
ii. Has the DOE applied specific guidance provided	VV	69	Yes. Applicability conditions as provided in CDM	Ok	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
by the CDM Executive Board in respect to the applicable approved methodology?	M		methodology booklet were applied		
iii. Is the methodology correctly quoted?	VV M	70	Yes. The methodology, AMS-II.C. Demand-side energy efficiency activities for specific technologies – Version 13 is correctly quoted in E.1 of CDM-SSC-CDM SSC-POA-DD	OK	OK
iv. Are the applicability conditions of the methodology met?	VV M	71	The program involves the installation of energy efficient lighting equipment in public and commercial buildings. Lighting types to be installed under the PoA include tubular and compact fluorescent lamps, LED downlights and a range of speciality commercial lamps. For each replaced lighting appliance/equipment/system the rated capacity or output or level of service (e.g., lumen output) is not significantly smaller (maximum - 10%) than the baseline or significantly larger (maximum + 50%) than the baseline.	OK	OK
v. Is the project activity expected to result in emissions other than those allowed by the methodology?	VV M	71	No, only Co <sub>2</sub> is considered as it is allowed by the methodology	Ok	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
vi. Is the choice of the methodology justified?	VV M	71	Yes. The choice of methodology was justified as "The methodology is applicable to SSC-CPAs under the proposed PoA because these projects concern the installation of energy efficient lighting equipment in commercial buildings, creating demand-side energy savings and reductions in greenhouse gas emissions."	OK	Ok
vii. Have the project participants shown that the project activity meets each of the applicability conditions or the approved methodology?	VV M	71	Yes, applicability conditions have been shown to be met.		OK
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?	VV M	71	The PP has demonstrated how the project activity meets each of the applicability conditions of the tool for demonstration and assessment of additionality and the tool for the calculation of emission factor of electricity system that are referred by the methodology	CAR 2	OK
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?	VV M	71	Yes. Other sources other than that used in the PDD include the internet and research papers/journals	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)	VV M	71	Examples of other sources used: <a href="http://totalenergyconcepts.com/docs/Lighting%20Retro%20-%208ft%20T8s.pdf">http://totalenergyconcepts.com/docs/Lighting%20Retro%20-%208ft%20T8s.pdf</a> <a href="http://www.sba.gov/content/lighting#FutureLightingSystemTechnologies/">http://www.sba.gov/content/lighting#FutureLightingSystemTechnologies/</a> <a href="http://www.lightbulbmoment.co.za/">http://www.lightbulbmoment.co.za/</a>	OK	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
xi. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VV M	72	Yes. The applicability conditions of the selected methodology were reviewed and can be determined	OK	Ok
xii. If no, clarification of the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VV M	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?	VV M	73	Not applicable		-
xiv. If yes to (5.b.l) and (5.b.m) above, a request for registration was submitted before the CDM Executive Board has approved the proposed deviation or revision?	VV M	74	Not applicable		-
<b>5.3. Project boundary</b>					
a. Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity?	VV M	78	For the purpose of calculations of project and baseline emissions of the proposed CDM projects activity, the project boundary has been correctly described.	OK	OK
5.3.1. Has the host country of the proposed project been identified			Yes. The host countries are South Africa, Kenya and Botswana.		OK
5.3.2. Does the project activity displace energy supplied by external sources and hence shall earn certified emission reductions(CERs) for the emission reductions associated with the reduced supply energy by those external sources?			Yes. The project activity involved displacement of energy inform of grid electricity.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.3.3. Has the geographical boundary of the CPA under the PoA clearly defined?			The project boundary for the CPA has been defined by specific location of the installed lighting equipments and includes the electricity grid to which those light fittings are connected. The geographical boundary of the SSC-CPA is within South Africa	OK	OK
b. Is the delineation in the PDD of the project boundary correct?	VV M	79	Yes		OK
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VV M	79	Yes		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.	VV M	79	Yes. Rwanda was excluded and Kenya included in the final PDD document version 2.0		OK
e. Have all sources and GHGs required by the methodology been included within the project boundary?	VV M	79	Only CO <sub>2</sub> Is considered in both baseline and project scenario	Ok	Ok
f. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VV M	79	No	Ok	Ok
g. If yes, have the project participants justified that choice?	VV M	79	Not applicable	Ok	Ok
h. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VV M	79	Not applicable	Ok	Ok
<b>5.4. Baseline identification</b>					





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
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?	VV M	81	Yes. The baseline scenario, business-as-usual, the commercial building owners and occupiers will continue to utilise existing, low efficiency lighting systems which offer the perceived advantages of being lower cost and lower risk	OK	OK
b. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VV M	82	Procedure for determination of baseline scenario where energy displaced is electricity was correctly applied in the proposed project.	OK	OK
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?	VV M	82	No	OK	OK
d. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VV M	82	N/A	OK	OK
i. Is the application of tools to establish the most reasonable baseline scenario appropriate?			<i>'Tool for the demonstration and assessment of additionality' (Version 5.2) is used, comprising the following steps:</i> In the light of Annex 2 Version 01.1 of EB 63, the use of the above tool (section A.4.3 of the PoA DD), may not be necessary.	GL-24	OK
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VV M	83	Yes. The "Tool for the demonstration and assessment of additionality" (Version 5.2) requires several alternative scenarios to be considered in the identification of the most	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			reasonable baseline scenario.		
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?	VV M	83	Yes. The scenarios consistent with mandatory laws identified are: (i) Business-as-usual (ii) Autonomous replacement		OK
g. Has any reasonable alternative scenario been excluded?	VV M	83	No.		-
h. Is the baseline scenario identified reasonably supported by:	VV M	84			-
i. Assumptions?	VV M	84	No assumptions were made to determine the baseline	Ok	Ok
ii. Calculations?	VV M	84	No calculations were made to determine the baseline	OK	OK
iii. Rationales?	VV M	84	Yes. All alternatives were identified and based on the viability of the options and compliance to the existing laws and regulations, the baseline was selected.	OK	OK
i. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VV M	84	Yes	CL-2-	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)	VV M	84	The information provided was cross checked with information from internet sources.  Examples of other sources used: <a href="http://totalenergyconcepts.com/docs/Lighting%20Retro%20-%208ft%20T8s.pdf">http://totalenergyconcepts.com/docs/Lighting%20Retro%20-%208ft%20T8s.pdf</a> <a href="http://www.sba.gov/content/lighting#FutureLightingSystemTechnologies/">http://www.sba.gov/content/lighting#FutureLightingSystemTechnologies/</a> <a href="http://www.lightbulbmoment.co.za/">http://www.lightbulbmoment.co.za/</a>		Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
k. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VV M	85	All applicable CDM requirements were taken into account in the identification of the baseline scenario.		OK
l. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VV M	85	The description of national and sectoral policies has been included in Section A.4.1.2.	CAR2	OK
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?	VV M	86	Yes. The baseline scenario is the continued use of existing lighting technologies by commercial building owners and occupiers i.e. the business-as-usual use of comparatively inefficient lighting equipment.	Ok	OK
<b>5.5. Algorithms and/or formulae used to determine emission reductions</b>					
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?	VV M	89	Yes, hence; $ER_y = (BE_y - PE_y) - LE_y$	Ok	OK
b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VV M	90	Yes.	CL 3-	OK
c. Does the methodology provide for selection between different options for equations or parameters?	VV M	90	Yes. Different options for equations are provided for determination of OM, BM, $EF_{EL,m,y}$ .  The PDD has indicated the option selected to be used in the calculation of the build margin (BM).	CAR3	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
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)?	VV M	90	Justification for the options used to calculate the above parameters have been given	Ok	Ok
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VV M	90	Yes. Correct equations and parameters have been used, in accordance with the methodology selected.	Ok	Ok
f. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VV M	91	Yes.CDM SSC-CPA-DD o <sub>k</sub> - Average operating hours during the monitoring period of the energy efficient devices of the group of "k" e <sub>PJ,k,y</sub> - Average daily energy consumption during the monitoring period of the energy efficient devices of the group of "k".	Ok	Ok
g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VV M	91	Not applicable	-	-
Has the procedure to calculate project emissions of an individual CPA been documented according to the approved methodology and in a complete and transparent manner			Yes. Project emissions will be determined in accordance with AMS-II.C.	CL-6	Ok
i. Operating margin EF?			The following issues were note: 1. Calculation of 'low cost must run' not provided	CL-4-	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			2. Units of measure for fuel consumptions not indicated 3. The methodology requires the use of Net calorific value whilst the calculations have used annual average calorific value. Please clarify 4. The link for the NCV in the spread sheet was incorrect 5. The units of the NCV is not as per the methodology 6. The source of the NCV for natural gas provided 46.50 not provided.		
ii. BuilId Margin EF?			1. Calculation of the total energy production of the CDM selected plants equivalent to 0.01% not provided 2. Please clarify value for average net energy conversion efficiency of power unit in a year, $\eta_{m,y}$ , is the same as the design efficiency at rated turbine MCR 3. The reference for Kendal power plant is not provided 4. The formula for calculating BM has not been indicated	<del>CL-5-</del>	OK
iii. Combined margin EF?			Calculations are done correctly	Ok	OK
iv. Baseline emissions calculations BE ?			Spread sheets and/or rationale for the figures used in the calculations of the BE are not	<del>CL-6-</del>	OK



## VALIDATION REPORT

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			provided. The CPA DD L <sub>y</sub> figure is indicated as 8.3% but 8.5% in the calculations.		
v. Project emission calculations PE?			Spread sheets and/or rationale for the figures used in the calculations of the PE are not provided.	CL 7-	OK
vi. Appropriate and correct?	VV M	91	Yes		Ok
vii. Applicable to the proposed CDM project activity?	VV M	91	Yes. The calculations are applicable to the proposed CDM project activity as per approved methodology	OK	OK
viii. Resulting in a conservative estimate of the emission reductions?	VV M	91	Yes		OK
h. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VV M	91	Yes. The data will be monitored on implementation. These data include number of operational project lighting equipments, number of baseline lighting equipments, power of the baseline lighting equipments replaced - weighted average power of project lighting equipments distributed, and the average annual operating hours of project lighting equipments distributed. In addition other parameters will be estimated ex ante and will be available at the time of validation e.g. emission factor (EF).	OK	Ok
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VV M	91	The spreadsheet for the estimation of n <sub>i</sub> , n <sub>k</sub> , P <sub>i</sub> and P <sub>k</sub> have not provided.	CL 8-	OK
<b>6. Additionality of a project activity</b>					



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
a. Does the PDD describe how a proposed CDM project activity is additional?	VV M	94	Yes. The PDD identified alternative scenarios, barrier analysis and common practice analysis to demonstrate that the proposed project activity is additional	ok	Ok
b. Were the following steps of the tool to assess additionality used:	EB 39	Ann 10			-
i. Identification of alternatives to the project activity?	EB 39	Ann 10	Yes. The alternatives include; i) <i>Business-as-usual</i> ii) <i>Autonomous replacement by building owners and occupiers.</i> iii) <i>Alternative incentives</i>	OK	Ok
ii. Investment analysis to determine that the proposed project activity is either: 1) not the most economically or financially attractive, or 2) not economically or financially feasible?	EB 39	Ann 10	Not used	Ok	Ok
iii. Barriers analysis?	EB 39	Ann 10	Yes. A number of barriers have been identified and included Access-to-finance barriers, Prevailing Practice, and Split Incentives barriers.	Ok	OK
iv. Common practice analysis?	EB 39	Ann 10	No common practice analysis done since the PP is not aware of any other similar activities (outside of CDM-based initiatives which are excluded from this analysis) occurring in South Africa, Botswana or Kenya.	Ok	Ok
c. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10			-





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	Yes, hence 4 scenarios i) Business-as-usual-the continued use of inefficient lighting technologies in commercial buildings ii) Autonomous replacement by building owner s and occupiers. iii) Mandatory replacement iv) <i>Alternative incentives</i>	Ok	Ok
ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	Yes. Only two alternatives identified are consistent with mandatory laws. There are (i) Business-as-usual-the continued use of inefficient lighting technologies in commercial buildings (ii) Autonomous replacement by building owner s and occupiers	Ok	Ok
d. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10			
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Yes. This alternative is identified as the Autonomous replacement by building owner s and occupiers.	OK	OK
ii. (b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	There are no other realistic and credible alternative scenarios to the proposed CDM proposed CDM project activity apart from the alternative scenario undertaken without being registered as a CDM project activity and continuation of the current situation have been included by the PP.	CL7	OK



## VALIDATION REPORT

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iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	Yes. This alternative is identified as Business-as-usual-the continued use of inefficient lighting technologies in commercial buildings	OK	OK
e. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 39	Ann 10	Yes. The project participant has included technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity. However, the technology included is currently energy inefficient.	OK	OK
f. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 39	Ann 10	Yes. Although possible scenarios to the proposed CDM project were identified, only those that are compliant to the existing rules and regulations were considered.	OK	OK
g. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 39	Ann 10	Yes. Only the alternatives that are compliance with the existing regulations were considered.	OK	OK
h. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	EB 39	Ann 10	Not applicable	OK	OK



## VALIDATION REPORT

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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	Yes. All the alternative scenarios compliant to the applicable legal requirements have been done correctly. The alternatives identified are: i) <i>Business-as-usual</i> ii) <i>Autonomous replacement by building owners and occupiers.</i> iii) <i>Alternative incentives</i>	OK	OK
j. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	No. Barrier analysis is selected	OK	OK
k. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10			-
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	Not applicable		OK
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	Not applicable		Ok
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		-



## VALIDATION REPORT

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appropriate 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 decision context.	EB 39	Ann 10	Not applicable			-
ii. When applying Option II or Option III, the financial/economic analysis shall be based on	EB 39	Ann 10	Not applicable			-



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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.						
iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions	EB 39	Ann 10	Not applicable			-



## VALIDATION REPORT

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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 appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 39	Ann 10	Not applicable			-
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	Ann	Not applicable			-



## VALIDATION REPORT

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	39	10				
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 reasonable variations in the critical assumptions.	EB 39	Ann 10	Not applicable			-
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				
i. Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity;	EB 39	Ann 10	Yes. The barriers are: i) Access-to-finance barriers ii) Prevailing Practice iii) Split Incentives			OK
ii. Sub-step 3 b: Show that the identified barriers	EB	Ann	Yes. The barriers will not prevent the business-			Ok





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would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	39	10	as-usual scenario from being implemented		
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			
i. (a) Investment barriers: For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.	EB 39	Ann 10	Yes. Investment barriers have been identified as a challenge to the implementation of the proposed CDM project by building owners and occupiers. Provide reference to this statement in the PoA: "Whilst Standard Bank and other financial institutions in Africa do currently have products available for energy efficiency equipment procurement, their utilisation is very low or non-existent".	CL-9-	OK
ii. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for	EB 39	Ann 10	Technological barriers were identified as a challenge which could lead to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance in the CPA of the proposed CDM project.	CL-9	OK



## VALIDATION REPORT

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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.						
iii. (c) Barriers due to prevailing practice: The project activity is the “first of its kind”.	EB 39	Ann 10	Yes. The prevailing practice is the use of inefficient lighting system.		OK	OK
iv. (d) Other barriers, preferably specified in the underlying methodology as examples.	EB 39	Ann 10	No other barriers specified in the underlying methodology as examples were identified.		Ok	Ok
u. Has the outcome from Step 3a clearly mentioned in PDD?	EB 39	Ann 10	Yes. <i>Several barriers that could prevent the one or more scenarios from occurring have been mentioned in the PDD. This are:</i> (i) Access-to-finance barriers (ii) ii)Prevailing Practice (iii) iii)Split Incentives		OK	OK
v. Has the below guideline followed for Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)?	EB 39	Ann 10	Yes.The barriers will not prevent the business-as-usual scenario from being implemented		OK	OK
i. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the	EB 39	Ann 10	The identified barriers would not prevent the business-as-usual use of energy inefficient lighting systems		Ok	Ok



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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.						
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	Documented evidence to demonstrate the existence and significance of the barriers identified have been referenced by the PP in foot notes numbers 11 to 25. However, all the references are either missing or inadequately quoted for ease of verification apart from footnote number 18.		CL 10-	OK
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, 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.	EB 39	Ann 10	Documentation of relevant market data was reviewed			Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
w. Has the outcome from Step 3 clearly mentioned in PDD?	EB 39	Ann 10	Yes. <i>The outcome is that the barriers will not prevent the business-as-usual scenario from being implemented.</i>	OK	Ok
x. In step 4: Common practise analysis have all the sub-steps as below followed?	EB 39	Ann 10			
i. Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 39	Ann 10	The project proponents are not aware of any other similar activities (outside of CDM-based initiatives) occurring in most of the participating countries. South Africa's national utility Eskom has undertaken a series of lighting efficiency programs and implemented mass distributions of CFLs to households since 2005. Highlight to what extent similar practices are carried out in the PoA participating countries.	GL-11-	OK
ii. Sub-step 4b: Discuss any similar Options that are occurring.	EB 39	Ann 10	Yes		OK
y. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis. Provide documented evidence and, where relevant, quantitative information. On the basis of that analysis, describe whether and to which extent similar activities have already	EB 39	Ann 10	Yes		Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
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	Yes			Ok
aa. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	Yes			OK
bb. Has it been proved that the project is additional?	EB 39	Ann 10	Yes			Ok
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	Yes. Additionality has been demonstrated by, Access-to-finance barrier, Technological barrier and barrier due to prevailing practice.			Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
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	Yes			Ok
ee. If Access-to-finance has been explained, is it demonstrated that the project activity could not access appropriate capital without consideration of the CDM revenues? Please explain.	EB 35	Ann 34	Yes			Ok
ff. If Technological barrier has been explained, is it demonstraed that a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty 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	Although the technological barriers has been mentioned,the description is general and not well explained	CL-12-		Ok
gg. If prevailing practise barrier has been explained, is it demonstrated that the prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions? Please explain.	EB 35	Ann 34	Yes. The prevailing practice is the use of inefficient lighting equipment which would lead to higher emissions		OK	OK
hh. If other barrier has been explained, is it demonstrated that Other barriers such as institutional barriers or limited information, managerial resources, organizational capacity, or capacity to absorb new technologies would prevent the project activity any way?	EB 35	Ann 34	No other barriers were explained		OK	OK
ii. Have the project participants identified the most	EB	Ann	The barriers identified by the PP were relevant		OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
relevant barrier?	35	34	upon assessment.			
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	Yes			
<b>6.1. Prior consideration of the clean development mechanism</b>						
a. Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VV M	98	NO. The start date has been clearly defined by the PP as 23/8/2011	CL-13-		OK
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VV M	98	N/A			Ok
c. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins."?	VV M	99	Yes			OK
d. Does the project activity require construction, retrofit or other modifications?	VV M	99	Yes. Modifications of the energy inefficient systems will be required	OK		OK
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VV M	99	Yes			
f. Is it a new project activity (a project activity with a	VV	100	It is a new project activity but the start date has		OK	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
start date on or after 02 August 2008) or an existing project activity (a project activity with a start date before 02 August 2008)?	M		not been clearly stated. Pending CL13 above			
g. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the CDM Executive Board before the project activity start date, had the PP informed the Host Party DNA 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).	VV M	101	Not applicable		OK	OK
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:	VV M	102				-
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:	VV M	102	N/A			-
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?	VV M	101	N/A			-
ii. reliable evidence from project participants that must indicate that continuing and real actions	VV M	102				-



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
were taken to secure CDM status for the project in parallel with its implementation, including, inter alia:						
a. contract with consultants for CDM/PDD/methodology services?	VV M	102	N/A			-
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)?	VV M	102	It is not clear how the CERs claims will be handled in other CPAs in the PoA.	CL-14-		OK
c. evidence of agreements or negotiations with a DOE for validation services?	VV M	102	Contract documents were evident			Ok
d. submission of a new methodology to the CDM Executive Board?	VV M	102	Not applicable			-
e. publication in newspaper?	VV M	102	Newspaper adverts for public consultation were reviewed during site visit		OK	Ok
f. interviews with DNA?	VV M	102	N/A			-
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VV M	102	N/A			-
h. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VV M	102	N/A			-
<b>6.2. Identification of alternatives</b>						
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further	VV M	105	No. the approved methodology selected by the proposed CDM project activity does not		OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
analysis is required?			prescribe the baseline scenario. Hence further analysis has been done to establish the baseline scenario.		
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VV M	105	Yes. Alternatives have been identified and includes: i)Business as usual ii)Autonomous replacements	Ok	Ok
c. Does the list of alternatives given in the PDD ensure that:	VV M	106			
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?	VV M	106	Yes. The alternative that the projects activity is undertaken without being registered as a proposed CDM project activity is autonomous replacement of inefficient energy systems with more efficient ones.	Ok	Ok
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?	VV M	106	Yes. The identified alternatives were found reasonable	Ok	Ok
iii. the alternatives comply with all applicable and enforced legislation?	VV M	106	Yes. Compliance with applicable laws was considered by the PP for all the alternatives identified.	OK	OK
<b>6.3. Investment analysis</b>					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VV M	108	Not used		-



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>6.4. Barrier analysis</b>					
a. Has barrier analysis been used to demonstrated the additionality of the proposed CDM project activity?	VV M	115	Yes. Barrier analysis has been used to demonstrated the additionally of the proposed CDM project activity.	ok	Ok
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VV M	115			
i. prevent the implementation of this type of proposed CMD project activity?	VV M	115	Yes, the PDD demonstrate that the proposed CDM project activity faces barriers that prevent the implementation of this type of proposed CDM project activity. The barriers include access to finance, prevailing practice and split incentive barrier and lack of technical knowhow	ok	Ok
ii. do not prevent the implementation of at least one of the alternatives?	VV M	115	Yes, the PDD demonstrate that the proposed CDM project activity faces barriers that do not prevent the implementation of at least one of the alternatives namely the continuation of business as usual use of inefficient lighting system	Ok	Ok
c. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for 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]}	VV M	116	No. No issue was established to have a direct impact on the financial returns of the project activity	Ok	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
d. Were the barriers determined as real by:	VV M	117			
i. assessing 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?	VV M	117	Evidence provided for validation of existence of barriers were reviewed	Ok	Ok
ii. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?	VV M		Yes		OK
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VV M		No. Independent references were given to substantiate the existence of barriers.	Ok	Ok
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of <i>at least one of</i> the possible alternatives, in particular the identified baseline scenario?	VV M	117	Yes. The barriers determined would prevent the implementation of project activity but will not prevent the implementation of the baseline scenario.	OK	Ok
<b>6.5. Common practice analysis</b>					
a. Is this a proposed large-scale, or first-of-its kind	VV	119		OK	Ok



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
small-scale project activity?	M		Yes. It's a first-of-its kind small-scale project activity		
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?	VV M	119	Yes. Common practice analysis was carried out but limited to South Africa.  Highlight to what extent similar practices are carried out in the PoA participating countries.	<del>CL-15-</del>	OK
c. Was it assessed whether the geographical 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 technologies the relevant region for assessment will be local and for others it may be transnational/global.	VV M	120	Yes.		OK
d. Was a region other than the entire host country chosen?	VV M	120	Yes. Apart from the Republic of South Africa, other countries chosen to participate on the PoA are Botswana and Kenya. Clarify whether Nigeria will be a host country since it has been mentioned in section D.3 but not in A.2.1 of the PoA.(The revised PoA DD v2.0 excludes Nigeria)	<del>CL-16-</del>	OK
e. If yes, was the explanation why this region is more appropriate assessed?	VV M	120	Yes. The explanation provided was that these countries experience the same challenges in terms of power demand which is more than the		OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			supply and the use of inefficient halogen and fluorescent lamps is prevalent.		
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?	VV M	120	The PP has identified similar projects in the Republic of South Africa other than CDM projects. The identified projects involved the issue of subsidy and rebates for selected technologies by the national utility company, Eskom. Eskom has undertaken a series of lighting efficiency programs and has implemented mass distributions of CFLs to households since 2005. The utility company has also introduced programs aimed at improving the adoption of energy efficient equipment in commercial buildings by providing subsidies, grants and rebates for retrofit projects and specific technologies.		OK
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VV M	120	No		Ok
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VV M	120	Eskom programs involve providing grant based payments to building owners or project implementers that install energy efficient lighting equipment and there is no obligation on project implementers or building owners to repay		OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			funding received. This distinguishes the Proposed project activity from similar activities.		
<b>7. Monitoring plan</b>					
a. Does the PDD include a monitoring plan?	VV M	122	Yes, the PoA PDD include a monitoring plan detailed in A.4.4.2 of the PDD and annex 4 and B.6.1 in the CPA DD	OK	OK
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VV M	122	Yes. The monitoring plan is based on the approved monitoring methodology applied to the proposed CDM project activity.	OK	OK
c. Were the list of parameters required by the the selected methodology identified?	VV M	123	Yes. The parameters included the number of working hours and the power of the equipments which are listed in the PoA and CPA.	Ok	Ok
d. Does the monitoring plan contains all necessary parameters?	VV M	123	Yes. All the necessary parameters are contained in the monitoring plan	Ok	Ok
e. Are the parameters clearly described?	VV M	123	The parameters have been clearly described	CL-10	OK
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VV M	123	Yes. Monitoring of parameters identified will be done at specified frequencies either an annual checks to continuous measurements. The plan complies with the requirements of the methodology	OK	ok
g. Specific questions per methodology regarding parameters.	VV M	123			
i)What is the source of data for Coefficient of Variation used in the calculations of sample sizes for the various LPC groups			Reference to data to determine Coefficient of Variation used in the calculations of sample sizes for the various LPC groups	CL-11	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
h. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VV M	123	Arrangement for data capturing, database maintenance, quality assurance and checks and monitoring are feasible within the project design.	CL-11	OK
i. Does the monitoring plan provide details regarding calibration of monitoring equipments/ instruments or does it include zero check as a substitute for calibration? (zero check can not be considered as a substitute for calibration)	EB 24	37	Details regarding calibration of monitoring equipments have been described under section 4.2.1.1 in the data management quality assurance procedures.	CL-12	ok
j. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VV M	123			
i. data management procedures?	VV M	123	Yes. The project database allows for unambiguous determination of the emission reductions attributable to each SSC-CPA :A list of buildings and clients participating in each SSC-CPA including name, address, GPS coordinates, lighting equipment removed and installed, LPC groups, date and location of the exchange transaction.	Ok	Ok
ii. quality assurance procedures?	VV M	123	Yes. Data management Quality assurance procedures for project implementation have been documented and the arrangement for data calculation ex post is sufficient.	CL-13	ok
iii. quality control procedures?	VV M	123	Yes. Data management Quality assurance procedures for project implementation have been documented and the arrangement for data	CL-14	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			calculation ex post is sufficient		
<b>a) Sustainable development</b>					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VV M	125	Yes		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?	VV M	126	Yes		Ok
<b>b) Local stakeholder consultation</b>					
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?	VV M	128	Yes, the local stakeholders were invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website. A public consultation meeting was organized and took place on 22 <sup>nd</sup> June 2011 at the Sandton Sun Hotel in Sandton, Johannesburg. The public participation meeting was advertised in the Sunday Times (a national Sunday newspaper) on 29 <sup>th</sup> May 2011. In addition to the advert in a national newspaper personal invitations were sent to representatives other stakeholders	OK	Ok
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VV M	129	Yes. A public consultation meeting was organized and took place on 22nd June 2011 at the Sandton Sun Hotel in Sandton, Johannesburg where local stakeholders comments that can reasonably be considered	CL-17-	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			relevant for the proposed CDM project activity were invited and addressed. No time frames were given by the PP for the closure of the issues or comments that were not closed out at the time of public consultation meeting.		
c. Is the summary of the comments received as provided in the PDD complete?	VV M	129	Yes		Ok
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VV M	129	Yes. the project participants has taken due account of comments received and described this process in the PDD. The comments are related to establishment of a website for information purposes including understanding of the PoA ,its eligibility criteria and how they can participate by including their projects under the program framework.and concerns on the projects to ensure that lighting products meet minimum SABS product certifications.	OK	Ok
<b>c) Environmental impacts</b>					
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VV M	131	There is no requirement of environmental impacts for a PoA and CPA in the Republic of South Africa.  Reference to statement below in the PoA DD is required :“The Governments of the participating countries, with the exception of Uganda, do not	CL-18-	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Have the project participants undertaken an analysis of environmental impacts?	VV M	132	require an environmental impact assessment to be undertaken In relation to the PoA" No. Analysis of environmental impacts will be done at CPA level depending on the requirements of the host country. There is no requirement of environmental impacts for a PoA and CPA in the Republic of South Africa. Reference/justification to this exemption is however is required.	<del>CL-19-</del>	OK
c. Does the host Party require an environmental impact assessment?	VV M	132	NO		Ok
d. If yes, have the project participants undertaken an environmental impact assessment?	VV M	132	N/A		Ok

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist table 1 and 2	Summary of project owner response	Validation team conclusion
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## VALIDATION REPORT

Letter of approval for all the participating countries have not been provided	CAR1	<p>The table below summarises the current status of obtaining Letters of Approval from each of the Host Countries. Several DNAs require copies of the draft validation report in order to provide the LoA, therefore this CAR will remain open until the draft validation report is obtained from the DOE and the project proponent can request the LoAs.</p> <table><tr><td>Country</td><td>LoA Status</td><td>Explanation</td></tr><tr><td>South Africa</td><td>Pending</td><td>Requires draft validation report</td></tr><tr><td>Kenya</td><td>Pending</td><td>Applied for EIA waiver</td></tr><tr><td>Botswana</td><td>Pending</td><td>Requires validation report</td></tr></table>	Country	LoA Status	Explanation	South Africa	Pending	Requires draft validation report	Kenya	Pending	Applied for EIA waiver	Botswana	Pending	Requires validation report	Closed out upon submission of LoAs for all participating countries
Country	LoA Status	Explanation													
South Africa	Pending	Requires draft validation report													
Kenya	Pending	Applied for EIA waiver													
Botswana	Pending	Requires validation report													



## VALIDATION REPORT

	CAR1 cont...	<p><u>Further PP comments – 02/12/2011</u></p> <p>The project proponents require a signed draft validation report from the DOE in order to apply for the LoA from the DNA of South Africa. Once the DOE provides the signed draft report the PP will apply and be able to close this CAR.</p> <p>In addition, the list of other countries for which LoAs are being sought has been reduced, as follows:</p> <table><tr><th>Country</th><th>LoA Status</th><th>Explanation</th></tr><tr><td>South Africa</td><td>Pending</td><td>Requires draft validation report</td></tr><tr><td>Kenya</td><td>Pending</td><td>Applied for EIA waiver</td></tr><tr><td>Botswana</td><td>Pending</td><td>Requires draft validation report</td></tr></table>	Country	LoA Status	Explanation	South Africa	Pending	Requires draft validation report	Kenya	Pending	Applied for EIA waiver	Botswana	Pending	Requires draft validation report	
Country	LoA Status	Explanation													
South Africa	Pending	Requires draft validation report													
Kenya	Pending	Applied for EIA waiver													
Botswana	Pending	Requires draft validation report													





## VALIDATION REPORT

It is not clear how the relevant national and/or sectoral policies and circumstances were considered and neither were they listed in the PDD.	CAR2	<p>The project proponents have updated the discussion of baseline scenarios in the CDM SSC-POA-DD to incorporate consideration of the national and sectoral policies in each of the Host Countries. These amendments have been provided in Section A.4.3 of the CDM SSC-POA-DD.</p> <p><u>Further PP comments – 02/12/2011</u> The description of national and sectoral policies has been included in Section A.4.1.2.</p>	OK. Provided responses were reviewed and found sufficient. CAR 2 is closed out.
Project participants are not listed in tabular form in section A.3 of the PDD,	CL 1	<p>Table format has been provided for listing of Project Participants in Section A.3 of CDM SSC-POA-DD.</p> <p><u>Further PP comments – 02/12/2011</u> The table in section A.3 of the CDM SSC-POA-DD has been revised to list the Republic of South Africa as the relevant Host Party in relation to the project participant, Standard Bank of South Africa Ltd.</p>	Revisions made by PP were reviewed and found Ok. CL 1 is closed out.



## VALIDATION REPORT

Although references have been quoted , all footnotes are not easily verifiable and need revised referencing apart from footnote number 4,7,8,10 and 18 in the PoA DD and 7,16 and 21 in the CPA DD	CL 2	<p>Footnotes in the CDM SSC-POA-DD and CDM SSC-CPA-DD have been updated to provide specific page numbers and further information in order to facilitate verification by the DOE. Further, all source documents and website references have been downloaded and supplied to the DOE.</p> <p><u>Further PP comments – 02/12/2011</u> Section B.5.2 has been updated to clarify that 95% is the correct figure, and a revised source has been provided in what is now footnote 12 of the CDM SSC-CPA-DD (actual).</p>	The updated references were reviewed and found OK. CL 2 closed is out
The spread sheets provided are not systematic as provided in the tool; Rearrangements of spreadsheets for ease of following calculation is required	CL 3	Changes have been made to the South African grid emission factor (GEF) calculation spreadsheet in order to make them more easily audited by the DOE.	The identification of the various spreadsheet calculations was adequate.





## VALIDATION REPORT

<p>The following issues were noted:</p> <ol style="list-style-type: none"> <li>1. Calculation of 'low cost must run not' provided</li> <li>2. Units of measure for fuel consumptions not indicated</li> <li>3. The methodology requires the use of Net calorific value whilst the calculations have used annual average calorific value. Please clarify</li> <li>4. The link for the NCV in the spread sheet was incorrect</li> <li>5. The units of the NCV is not as per the methodology</li> <li>6. The source of the NCV for natural gas provided 46.50 not provided.</li> </ol>	CL4	<ol style="list-style-type: none"> <li>1. The calculations of 'Low cost must run' are provided in the spreadsheet in the rows range "A63:L93".</li> <li>2. Units of measure for fuel consumption have been included (tonnes).</li> <li>3. The <i>'Tool to calculate the emission factor for an electricity system'</i> version 02.2 allows "the use of national average default values if values are reliable and documented in regional or national energy statistics / energy balances". In this instance the average value used has been sourced from the Eskom Statistical Overview with a link to the source now provided in the spreadsheet.</li> <li>4. The link for the NCV values has been updated (see cell A:54).</li> <li>5. The correct units of measure for NCV (GJ/t) have been updated accordingly.</li> <li>6. The source of the NCV for natural gas has been included in spreadsheet (see cell A:55).</li> </ol>	<p>1-6:OK All the required corrections made by PP were reviewed and CL 04 is closed out.</p>
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## VALIDATION REPORT

<p>5. Calculation of the total energy production of the CDM selected plants equivalent to 0.01% not provided</p> <p>6. Please clarify value for average net energy conversion efficiency of power unit in a year, , is the same as the design efficiency at rated turbine MCR</p> <p>7. The reference for Kendal power plant is not provided</p> <p>8. The formula for calculating BM has not been indicated</p> <p>9. It is not clear where the net electricity generated by the three cdm projects feeding electricity to the grid comes from</p> <p>10. The equation chosen in step 4: calculation of the operating margin emission factor is option A1. However, the excel spreadsheets calculations uses Option A2. Clarify which one is correct.</p>	CL5	<p>1. The calculations of the total energy production of the CDM selected plants equivalent to 0.01% are provided in the spreadsheet in the worksheet titled 'Step 5' in the cell range "A14:C25"</p> <p>2. The design efficiency at rated turbine MCR, as provided by Eskom has been used for . For data source, see below.</p> <p>3. The sources of the data used for the GEF calculation are listed in the spreadsheet in the cell range "X13:AB13".</p> <p>4. BM formula has been included in the CDM SSC-CPA-DD in section B.5.2 (labelled as formula 3).</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>5. Full details of the CDM projects used in the calculation of net electricity generation have been provided in a supporting document provided to the DOE.</p> <p>6. In Step 4, to calculate the OM option A1 has been used. However, in step 5 to calculate the BM, the Tool stipulates that: "If the power units included in the build margin m correspond to the sample group SETsample-CDM-&gt;10yrs, then, as a conservative approach, <b>only option A2 from</b></p>	<p>Corrections made by PP were reviewed and are adequate to closed out CL 05</p>
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## VALIDATION REPORT

		<p><b><i>guidance in Step 4 (a) can be used and the default values provided in Annex 1 shall be used to determine the parameter <math>\eta m, y</math>.</i></b></p> <p>Therefore, the project proponent's use of Option A1 for calculating the OM, and Option A2 for calculating the BM is as per the guidance provided in the Tool.</p> <p><u><i>Further PP comments – 18/01/2012</i></u></p> <p>The PP has provided the DOE with a copy of the CDM Monitoring Report, 2nd Monitoring Period: 2nd November 2007 to 28th February 2010, for the project: <i>Durban Landfill Gas to Electricity Project - Mariannhill and La Mercy Landfills</i>. Page 54 of this PDF document (note that pages are not numbered sequentially in the report) is a table titled: Summary of CERs for Verification at Marianhill. Column 5 of the table provides the electricity generation data (EGy - (MWh)) referred to in the PP's calculation spreadsheet. The reference in our spreadsheet is therefore considered correct.</p> <p>The PP has utilized the CER calculation sheet for the Durban Landfill Gas Bisasar Rd project in order to re-calculate the net electricity production of that project. A copy of both the Bisasar Rd ER calc sheet and an updated CDM project info sheet (prepared by the PP) has been provided to the DOE.</p>	
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## VALIDATION REPORT

		The value of 13,218 MWh of electricity generated by the Bisasar Rd project remains unchanged, however, it is now based on the correct data source. There is therefore no changes required to the emission factor calculation or ex-ante CER estimates in the actual CDM SSC-CPA-DD.	
Spread sheets and/or rationale for the figures used in the calculations of the BE are not provided. The CPA DD $L_y$ figure is indicated as 8.3% but 8.5% in the calculations.	CL 6	A detailed calculation spreadsheet has been prepared which provides all baseline data from building audits. The spreadsheet classifies each lighting circuit according to the expected usage pattern (as per the monitoring plan), and provides information on each of the variables involved in CER calculations.	Variables reviewed and found OK. CL 6 closed out.
Spread sheets and/or rationale for the figures used in the calculations of the PE are not provided.	CL 7	As above	OK. Spread sheet provided.



## VALIDATION REPORT

The spreadsheet for the estimation of ni, nk, Pi and Pk have not provided.	CL 8	<p>As above</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>The worksheets in “1 SimmondsPwrprofile RAMP calculations” now have titles and explanatory notes to ease understanding.</p> <p>Reference to “operatinghours;totalnumberlightingequipments and totalpowerlightingequipments” are not worksheets, but ‘dynamic named ranges’. The CER calculation worksheet has been amended to show their corresponding range addresses. We chose to create dynamic ranges for ease and flexibility of calculations when adding new lighting inventory and use data in each of the LPC Group worksheets.</p>	<p>OK. Revised calculation reviewed and found satisfactory. CL 8 Closed out.</p>
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## VALIDATION REPORT

Provide reference to this statement in the PoA: "Whilst Standard Bank and other financial institutions in Africa do currently have products available for energy efficiency equipment procurement, their utilisation is very low or non-existent".	CL 9	The Project proponents have revised the statement to limit this assertion to Standard Bank's own lending operations. In addition, the PP has obtained written confirmation from the Corporate and Investment Banking team that Standard Bank has never provided finance for an energy efficient lighting retrofit in the countries covered by the PoA. This written evidence has been provided to the DOE for verification, but will remain confidential, as it is an internal company document.	The revision has been reviewed and found adequate. Ok
Documented evidence to demonstrate the existence and significance of the barriers identified have been referenced by the PP in foot notes numbers 11 to 25. However, all the references are either missing or inadequately quoted for ease of verification apart from footnote number 18.	CL 10	<p>Footnotes in the CDM SSC-POA-DD have been updated to provide specific page numbers and further information in order to facilitate verification by the DOE. In addition, all source documents and website reference have been downloaded and supplied to the DOE.</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>As per CL 5 point 5 above, the full details of the CDM projects (including weblinks) used in the calculation of net electricity generation have been provided in a supporting document provided to the DOE.</p> <p><u>Further PP comments – 18/01/2012</u></p> <p>See comments in relation to CL5 above.</p>	The updated reference are Ok, hence CL 10 is closed out.



## VALIDATION REPORT

<p>The project proponents are not aware of any other similar activities (outside of CDM-based initiatives) occurring in most of the participating countries. South Africa's national utility Eskom has undertaken a series of lighting efficiency programs and implemented mass distributions of CFLs to households since 2005.</p> <p>Highlight to what extent similar practices are carried out in the PoA participating countries.</p>	CL 11	<p>The project proponents have updated the discussion on other similar practices in each of the Host Countries. These amendments have been provided in Section A.4.3 of the CDM SSC-POA-DD.</p> <p>Whilst there are efficient lighting initiatives in several of the countries covered by the PoA, these all involve households, not commercial buildings, with the exception of those in South Africa managed by national utility Eskom. As discussed in the CDM SSC-POA-DD there are essential differences between the proposed PoA and the similar activities undertaken by Eskom. The proposed PoA is therefore not considered common practice.</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>The project proponents have updated the discussion on similar practices in Kenya under section A.4.3 of the CDM SSC-POA-DD.</p> <p><u>Further PP comments – 18/01/2012</u></p> <p>See comments below in relation to CL 21.</p>	<p>OK. Response provided is adequate, CL 11 is closed out.</p>
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## VALIDATION REPORT

Although the technological barriers has been mentioned, the description is general and not well explained.	CL 12	<p>The discussion of technology barriers in the CDM SSC-CPA-DD has been expanded to more clearly explain how uncertainties regarding the performance of the proposed technologies due to their innovative nature act as a barrier against investing in the proposed project. The high upfront cost of a series of whole-of-building retrofits, combined with the performance uncertainty of the technologies involved is a considerable barrier to the project. The CDM helps to overcome this in two ways:</p> <ol style="list-style-type: none"> <li>1. Additional project revenues which reduces the payback period of the energy efficiency investment.</li> <li>2. The monitoring associated with the CPA means that the building owner receives detailed information regarding the performance of the technologies installed, and the energy savings achieved.</li> </ol>	OK. The revised discussion on the technological barrier was reviewed and is satisfactory. CL 12 is closed out.
The start date has not been clearly defined by the PP	CL 13	<p>The starting date of the PoA has been amended to align with the date on which the purchase order for the lighting equipment for CPA1 was signed. This commitment of funds for implementation of the PoA represents "real action" as per the definition of <i>Starting date of a CDM programme activity</i> in the Glossary of CDM Terms (version 05).</p> <p>The starting date of both the PoA and CPA1 are now consistent.</p>	OK. The amendments made were reviewed and found sufficient. CL 13 is closed out.



## VALIDATION REPORT

<p>It is not clear how the CERs claims will be handled in other CPAs in the PoA.</p>	<p>CL 14</p>	<p>The CDM SSC-POA-DD already makes describes how commercial arrangements relating to CERs will be dealt with. Section A.4.4.1 states:</p> <p>“... the CME will ensure that all parties involved in the implementation of a SSC-CPA have agreed to assign CERs to this PoA. This will avoid the situation whereby lighting suppliers or installers involved in SSC-CPA implementation claim the same emission reductions as CERs for another CDM project or PoA. <i>The CME will establish appropriate legal agreements with the SSC-CPA implementers to ensure that the ownership and assignment of CERs in respect of the PoA is clear, and avoids the possibility of emission reductions being double counted.</i>”</p> <p>In addition, the PoA eligibility criteria include the requirement for each CPA's participation in the PoA to be approved by the CME. Part of that approval process will involve agreement on commercial arrangements for CERs. In addition, a further eligibility criteria seeks to avoid double counting of CERs by ensuring that the CPA is not registered, or being registered, as a stand-alone CDM project outside PoA.</p> <p>The PPs believe that these provisions in the PoA and CDM SSC-CPA-DDs provide sufficient clarity with regard to how CER claims will be managed for each CPA.</p>	<p>OK. The arrangements proposed are deemed sufficient hence CL 14 is closed out.</p>
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## VALIDATION REPORT

<p>Common practice analysis was carried out but limited to South Africa.</p> <p>Highlight to what extent similar practices are carried out in the PoA participating countries</p>	CL 15	<p>The project proponents have updated the discussion on other similar practices in each of the Host Countries. These amendments have been provided in Section A.4.3 of the CDM SSC-POA-DD.</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>The project proponents have updated the discussion on similar practices in Kenya under section A.4.3 of the CDM SSC-POA-DD.</p> <p><u>Further PP comments – 18/01/2012</u></p> <p>See comments below in relation to CL 21.</p>	<p>Ok. The updated discussions were reviewed and found adequate for the closure of CL 15.</p>
<p>Clarify whether Nigeria will be a host country since it has been mentioned in section D.3 but not in A.2.1 of the PoA</p>	CL 16	<p>Nigeria will be a host country. Information on Nigeria has been updated in the relevant sections of the CDM SSC-POA-DD.</p>	<p>The updated section was reviewed and found OK. However, Nigeria has been excluded in the latest PoA DD version 2.0 was is deemed Ok by the DOE.</p>



## VALIDATION REPORT

No time frames were given by the PP for the closure of the issues or comments that were not closed out at the time of public consultation meeting	CL 17	<p>The outstanding issues raised by participants in the stakeholder sessions are:</p> <ol style="list-style-type: none"> <li>1. The provision of further information for interested participants via a website or other marketing materials; and</li> <li>2. The development of a technical specification for the PoA which ensures that lighting technologies used in CPAs meet appropriate local or international standards.</li> </ol> <p>The CME has committed to concluding these issues prior to registration of the PoA. This is now documented in the CDM SSC-POA-DD.</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>This information is now provided in Section D.4 of the CDM SSC-CPA-DD (actual).</p>	OK. Information provided is deemed adequate, CL 17 is closed out.
Reference to statement below in the PoA DD is required :“The Governments of the participating countries, with the exception of Uganda, do not require an environmental impact assessment to be undertaken In relation to the PoA”	CL 18	This statement has been removed from the CDM SSC-POA-DD. Because of the varied nature of EIA requirements between the different host parties, the specific requirements for CPAs will be documented in CDM SSC-CPA-DDs.	Ok. The issue will be handled at CPA level.



## VALIDATION REPORT

<p>There is no requirement of environmental impacts for a PoA and CPA in the Republic of South Africa.</p> <p>Reference/justification to this exemption is however is required.</p>	CL 19	<p>Confirmation has been obtained from the South African DNA that no EIA is required. Written evidence has been provided to the DOE. In addition, we are awaiting a formal letter from the Department of Environmental Affairs confirming the absence of a requirement for and EIA for the PoA.</p> <p><u>Further PP comments – 02/12/2011</u></p> <p>The PP is still awaiting confirmation from the Department of Environmental Affairs, however, the DNA did provide its own confirmation (email previously provided to the DOE) that no EIA was required for South Africa. The PP believes that this is sufficient clarification for the DOE.</p> <p><u>Further PP comments – 18/01/2012</u></p> <p>A corrected letter has been obtained from the Department of Environmental Affairs and provided to the DOE.</p>	<p>OK. Reference provided by the PP is deemed sufficient and CL 19 is closed out.</p>
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## VALIDATION REPORT

<p>In section A. 1 of the generic CDM SSC-CPA-DD , the following are not provided: Version: 0X (Provide the above information and update in the current CPA DD).</p> <p>In section A.4.1 of the generic CPA DD, provide the complete name of the CPA. Give a provision for name/contact details of the CPA implementer in section A.4.1.2 of the generic CPA DD and update the same info on the current CPA DD.</p> <p>The date and version of the registered PoA in section B.1 of generic CPA DD is missing. Provide this info and update the same in the current CPA DD.</p>	CL 20	<p><u>PP comments – 02/12/2011</u> Section A.1 of the CDM SSC-CPA-DDs have been updated to include version numbers.</p> <p>Section A.4.1.2 of the CDM SSC-CPA-DD (actual) and CDM SSC-CPA-DD (generic) have been updated to include name/contact details.</p> <p>The date and version of the PoA is now a required field within section B1 of the generic CDM SSC-CPA-DD. The current/actual CDM SSC-CPA-DD has been updated to include the version of the PoA (version 1), however, it is not possible to include the registration reference number or date, as these will be determined at the point of registration.</p> <p><u>Further PP comments – 18/01/2012</u> Section B1 in the generic and actual CPA DD has been updated to include the PoA version number and date.</p>	OK. The required revisions on the mentioned sections were adequately addressed and CL 20 is closed out.
<p>The project documents(PoA DD and CPA DD) makes reference to .Tool to calculate the emission factor for an electricity system – Version 2.2 which is not the latest version</p>	CAR 3	<p><u>Further PP comments – 02/12/2011</u> References in all PDDs to the emission factor calculation Tool now refer to the latest version (v.2.2.1).</p>	OK. The revised reference is the latest version.



## VALIDATION REPORT

<p>"To ensure a well-developed discussion of additionality, the '<i>Tool for the demonstration and assessment of additionality</i>' (Version 5.2) is used, comprising the following steps:" In the light of Annex 2 Version 01.1 of EB 63, the use of the above tool (section A.4.3 of the PoA DD), may not be necessary.</p>	CL 21	<p><u>PP comments – 18/01/2012</u></p> <p>EB 63 Annex 2 ("STANDARD FOR DEMONSTRATION OF ADDITIONALITY OF GHG EMISSION REDUCTIONS ACHIEVED BY A PROGRAMME OF ACTIVITIES", Version 01.0) paragraph 8 requires that "PoAs that will include one or more small-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of Attachment A of Appendix B of the Simplified modalities and procedures for small-scale CDM project activities". The PPs have taken this into account and have already included a criterion to this effect in A.4.2.2 of the CDM SSC-POA-DD (see eligibility criterion 6).</p> <p>The use of the Additionality Tool is considered best practice, and is not in conflict with the Standard released at EB63, and as such the PPs will continue to use it in order to assist with the structure and content of its additionality discussion.</p>	OK
<p>"In Kenya, the public utility company-Kenya Power and Lighting Ltd (KPLC) is distributing CFLs to the residential users under the CDM Programme of Activities (PoA) known as Green Light for Africa". This statement in section A.4.3 of the PoA DD is not valid since the PoA in question is still under validation.</p>	CL 22	<p><u>PP comments – 18/01/2012</u></p> <p>The PPs have revised the sentence in section A.4.3 of the PoA DD for improved clarity, removing reference to the PoA.</p>	OK. The revised section was reviewed, found adequate and closed out.



## VALIDATION REPORT

The statement "If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA" in section A.4.3 of PoA DD should refer to absence of CDM and not PoA. Clarify.	CL 23	<u>PP comments – 18/01/2012</u> This is the language/wording provided in the SSC-CDM SSC-POA-DD template from the UNFCCC and therefore we are not able to make the change proposed by the DOE.	OK. The responses were reviewed and are appropriate.
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