

VALIDATION REPORT

Title of CPA:

*CPA 001 UNDER POA 'SOUTH AFRICAN LARGE SCALE GRID
CONNECTED SOLAR PARK PROGRAMME'*

Title of PoA to which CPA is to be included:


*"SOUTH AFRICAN LARGE SCALE GRID CONNECTED SOLAR
PARK PROGRAMME"*

Report No.CCL0026/SAGCSP/02042012

Revision No. 02

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

CPA Title: CPA001 under PoA 'South African Large Scale Grid Connected Solar Park Programme'		Country: Republic of South Africa		Estimated CERs (tCO₂e): 65 597 annual average (CPA- 01)	
Managing Entity: Blue World Carbon Asset Management (Pty) Ltd		CPA Implementer: Lylaserve (Pty) Ltd		GPS coordinates of the CPA: The verified range of geographic coordinates of locations under the first CPA is /09/. Latitude : -27°.5975 S Longitude : 22°.9372 E	
Report No.: CL0026/SAGCSP/02042012		Revision: 02		Date of this report: 21/12/2012	
Technical Reviewer: Vikash Kumar Singh				Date of approval: 26/12/2012	
Approved by (Final Report): Priyesh Ramlall 				Date of approval: 27/12/2012	
Organisational Unit: Carbon Check (Pty) Ltd					
Report Distribution: <input type="checkbox"/> Unrestricted Distribution <input type="checkbox"/> Limited Distribution <input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational unit)					
Methodology					
Number: ACM0002		Title: Consolidated baseline methodology for grid –connected electricity generation from renewable sources.		Scale: Small <input type="checkbox"/> Large <input type="checkbox"/>	
Version: 12.3.0				SS(s): 1 TA (s): 1.2	

Validation Team		Role					
Full Name	Appointed for Sectoral scopes (Technical Areas)	Team Leader	Trainee Auditor	Local Assessor	Team Member (Auditor)	Technical Expert	
Pankaj Kumar	1.2, 1.1, 3.1, 4.5, 13.1	X				X	
Ravi Shankar	1.2, 2.1, 2.2, 3.1, 13.1				X		
Adam Simcock				X			
Barun Kumar			X				
Vikash Kumar Singh	1.2,3.1, 13.1						X

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

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Executive Summary - Validation Opinion

Under the validation (by means of document review and interviews with stakeholders), the validation team considers that the CPA description in CPA titled- "CPA001 under PoA 'South African Large Scale Grid Connected Solar Park Programme' " as described in the CDM-CPA-DD of Date 11/12/2012, version 3.0 is accurate and complete; meets the requirements to be included in the PoA titled "South African Grid Connected Solar Farm Programme", version 3.0 (date 11/12/2012) and correctly applies the baseline and monitoring methodology ACM0002. (version 12.3.0).

Standard auditing techniques have been used for the validation of the project. An analysis, as provided by the applied methodology, demonstrates that the proposed CPA is not a likely baseline scenario. Emission reductions attributable to the CPA are additional to any that would occur in the absence of the project activity. Given that the CPA is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the CPA-DD /02/.

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

The validation was executed in the following steps so far:

- Receipt of PoA-DD (version 1.0, dated 02/04/2012) CPA DD (generic) and specific CPA-DD (version 1.0, dated 02/04/2012) for global stakeholder comments.
- Global stakeholder comment process (05/04/2012 – 04/05/2012)
- On-site visit with stakeholder interviews (24/08/2012- 25/08/2012)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft validation report and protocol
- Desk review of revised DDs applying ACM0002 (version 12.3.0).
- Review of responses for CARs/CLs
- Issue of the final validation report and protocol

During the course of validation a total of 7 Corrective Action Requests (CARs) and 3 Clarification Requests (CLs) were identified on webhosted PoA-DD /01/. Upon evaluation of responses provided by the Project Participant all the identified issues were closed successfully.

The single purpose of this report is its use during the inclusion process (of the real case CPA) at the time of requesting registration. The review of the CPA-DD /02/, subsequent follow-up interviews, and further verification of references have provided Carbon Check (Pty) Ltd, with sufficient evidence to determine the fulfilment of stated criteria in the PoA-DD /16/ and g-CPA-DD /17/. In the opinion of Carbon Check (Pty) Ltd, the CPA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. Carbon Check (Pty) Limited recommends the real case CPA and the PoA for registration.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Abbreviations

BE	Baseline Emissions
BM	Build Margin
BWC	Blue World Carbon Asset Management (Pty) Ltd
CAR	Corrective Action Request
CC	Cross Check
CCL	Carbon Check (Pty) Ltd
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CL	Clarification Request
CM	Combined Margin
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide equivalent
CME	Coordinating/managing entity and participants of PoA
CPA	CDM Program Activity
CPA-DD	CDM Program Activity design document
DEA	Department of Environmental Affairs
DR	Document Review
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
I	Interview or any follow up action
IPCC	Intergovernmental Panel on Climate Change
LA	Lead Assessor
LoA	Letter of Approval
MoV	Means of Validation/Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
OM	Operating Margin
PE	Project Emission
PoA	Program of Activities
PoA-DD	Program of Activities design document
PP(s)	Project Participant(s)
Ref.	Document Reference
RSA	Republic of South Africa
SD	Sustainable Development
SS(s)	Sectoral Scope(s)
TA	Trainee Assessor
TL	Team Leader
TM	Team Member
TR	Technical Reviewer
UNFCCC	United Nations Framework Convention on Climate Change

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Table of Contents	Page
1 INTRODUCTION	6
1.1 Objective	6
1.2 Scope	6
2 METHODOLOGY	6
2.1 Document Review	6
2.2 Follow-up actions	10
2.3 Resolution of outstanding issues	10
2.4 Internal quality control	12
2.5 Validation team and the technical reviewer(s)	12
3 VALIDATION SUMMARY	12
3.1 CPA Design Document	12
3.2 CPA Description	12
3.3 Eligibility Criteria for CPA Inclusion	15
3.4 Additionality	22
3.5 Emission Reduction	24
3.6 Monitoring Plan	25
3.7 Stakeholder Consultation	25
3.8 Environmental Analysis	26
Appendix A: Validation Protocol	
Appendix B: Certificate of Competence	

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

1 INTRODUCTION

Blue World Carbon Asset Management (Pty)Ltd (BWC) (hereafter referred as “CME”) has commissioned the DOE Carbon Check (Pty) Ltd, to assess the information in the CDM-CPA-DD for the CPA title “CPA 001 under PoA ‘South African Large Scale Grid Connected Solar Park Programme’” (hereafter called “the CPA”) against the requirements for including CPAs to the PoA “South African Large Scale Grid Connected Solar Park Programme” and further documentation requirements for including CPAs to a PoA.

This report summarizes the findings of the validation of the CDM Programme Activity Design Document(CPA-DD), performed on the basis of UNFCCC criteria for the PoAs under the CDM, as well as criteria given to provide for consistent programme operations, monitoring and reporting. The term “UNFCCC criteria” refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the modalities and procedures for CDM project activities, and the subsequent decisions by the COP/MOP and CDM Executive Board. In addition to these criteria, host country criteria are also taken into account.

1.1 Objective

The assessment of a CPA requesting to be included in a PoA shall ensure that all the requirements determined in the PoA are met. The assessment was performed on the basis of the eligibility and additionality criteria established in the PoA and the UNFCCC criteria for including CPAs to programme of activities under the Clean Development Mechanism (CDM),as well as criteria given to provide for consistent project operations, monitoring and reporting according to ACM0002 (version 12.3.0).

1.2 Scope

The scope of the validation is to have an independent and objective review on the CDM CPA design document (hereinafter referred to as 'CPA-DD') and other relevant documents. The DOE shall scrutinize the information in the CPA-DD to assess compliance with the eligibility criteria and criteria for demonstrating additionality established by the PoA, to check correctly application of ACM0002. (version 12.3.0) and to check compliance with documentation requirements, decisions made by COP/MOP, CDM EB and relevant rules including the host country legislation and sustainability criteria for CPAs.

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

2 METHODOLOGY

The validation consists of the following three phases:

- I. A desk review of the specific CPA-DD with relevant information to be included in PoA.
- II. On-site visit and follow-up interviews with programme stakeholders; and
- III. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The following sections outline each step in more detail.

2.1 Document Review

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

REFERENCE NO.	DOCUMENTS
/01/	CPA-DD specific (webhosted version), “CPA 001 under PoA ‘South African Large Scale Grid Connected Solar Park Programme’”, version 01.0, Date - 02/04/2012
/02/	CPA-DD specific (final version), “CPA 001 under PoA ‘South African Large Scale Grid Connected Solar Park Programme’”, Version 3.0, Date - 11/12/2012
/03/	Emission reduction spread sheet corresponding to /02/
/04/	Letter of Approval from the DNA of Republic of South Africa (dated 31/10/2012),

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

	authorizing Blue World Carbon Asset Management (Pty) Ltd, as the project proponent and the coordinating and managing entity (CME) to participate in the CDM project.
/05/	Technical specification brochure by Jinko Solar
/06/	The Management System for the South African Grid Connected Solar Farm Programme, version 02 (26/10/2012).
/07/	Declarations from the CME and CPA Implementer dated 10/12/2012: <ol style="list-style-type: none"> 1. CPA implementor (Lylaserve (Pty) Ltd. will sell power through Govt. PPA and will be connected to national grid of RSA 2. No double counting and no ODA involved/diverted as a result of the PoA
/08/	Table 4, Activity Information Form, agreement between CPA implementer and CME regarding agreement on established management system by CME. Dated 19/12/2012.
/09/	Proof for GPS coordinates of the CPA site: <ol style="list-style-type: none"> 1. Environmental authorization dated 03/10/2011 2. Table 4, Activity Information Form, agreement between CPA implementer and CME regarding agreement on established management system by CME. Dated 19/12/2012
/10/	Certification of Incorporation of Lylaserve Pty Ltd. (Registration Number 2011/145061/07), dated: 09/12/2011
/11/	Certification of Incorporation of Blue World Carbon Asset Management (Pty) Ltd (Registration No.: 2009/002466/07, dated: 10/02/2009.
/12/	Grid Emission Factor (GEF) calculation Sheet dated; 12/12/2012
/13/	The Electricity Regulation Act, 2006 (Act No. 4 of 2006) (http://www.energy.gov.za/files/policies/NationalEnergyRegulatorAmendmentBill.pdf)
/14/	Integrated resource plan for electricity 2010-2030 (http://www.energy.gov.za/IRP/2010/IRP_2010.pdf)
/15/	Evidence for PLF considered: <ul style="list-style-type: none"> • GL Garrard Hassan load factor, year 0 explanatory statement tender (applicable to year 0) • Schedule 1 Part 1, solar PPA Appendix K2 (applicable to year 1-10)
/16/	"South African Large Scale Grid Connected Solar Park Programme", version 3.0 (date 11/12/2012) Final PoA-DD
/17/	Final CPA-DD template(generic)
/18/	Declaration from BWC on CPA 001 fulfilling the eligibility and applicability criteria for inclusion in PoA (dated 29/10/2012)
/19/	Lylaserve Declaration for technology used.
/20/	Declaration from CPA Implementer for Implementation schedule
/21/	Evidence for First-of-its-kind barrier: Appendix to Eskom Integrated report, Divisional Report, Power station commercial capacities, download file situated under "Excel downloads", http://financialresults.co.za/2012/eskom_ar2012/integrated-report/popup-downloads.php
/22/	Final EIA Report, dated Jan. 2011
/23/	Evidence for operational life time of the project activity: <ul style="list-style-type: none"> • EU: Study on PV panels supplementing the impact assessment for a recast of the WEEE directive, Final report, 14/04/2011 (http://ec.europa.eu/environment/waste/weee/pdf/Study%20on%20PVs%20Bio%20final.pdf on page 6, paragraph 3)
/24/	Environmental Authorization from the Department of Environmental Affairs, dated: 03/10/2011
/25/	Draft Power Purchase Agreement
/26/	Documents related local stakeholder consultation:- <ol style="list-style-type: none"> 1. Stakeholder database

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

	2. Public Notice and Newspaper advertisements 3. Stakeholder comments
/27/	Agreement between BWC and Lylaserve Pty Ltd for CDM Project development & services dated 14/12/2012
/28/	Declaration from CME regarding project capacity and technology employed in CPA001 dated 10/12/2012
/29/	Declaration from CME regarding choice of crediting period dated 09/03/2012

Referred documents/websites:

/B01/	CDM validation and verification manual, version 01.2, EB 55 (Annex 1)
/B02/	ACM0002 Consolidated baseline methodology for grid –connected electricity generation from renewable sources (Version 12.3.0).
/B03/	Tool to calculate the emission factor for an electricity system, version 03
/B04/	<p>PoA Specific guidelines / standards published by UNFCCC:</p> <ol style="list-style-type: none"> 1. Programme of activities design document form (CDM-PoA-DD) Version 01 2. CDM programme activity design document form (CDM-CPA-DD) Version 01 3. Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission Reductions for a programme of activities, Version 04.1, EB 55 (Annex 38) 4. Procedures for review of erroneous inclusion of a CPA, version 03, EB 61 (Annex 22) 5. Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 02.1, EB 70, Annex 05 6. Clarifications regarding the “Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities”, version 01, EB 60 (Annex 26) 7. Tool for the demonstration and assessment of additionality, version 7.0, EB 70 (Annex 08) 8. Procedures for processing and reporting on validation of CDM project activities, version 03, EB 50 (Annex 48) 9. EB 47 report. 10. Guidelines on the assessment of investment analysis, Version 05, EB 62 (Annex 5) 11. Guidelines on the demonstration and assessment of prior consideration of the CDM, Version 04, EB 62 (Annex 13) 12. Guidelines on common practice, version 02.0, EB 69 (Annex 8) 13. Tool to calculate project or leakage CO2 emissions from fossil fuel consumption, Ver. 02, EB 41, Annex 11 14. Guidelines on additionality for first-of-its-kind activities, ver. 2.0, Annex 07, EB 69
/B05/	Glossary of CDM terms, version 06, EB 66 (Annex 6)
/B06/	<p>Websites:</p> <ol style="list-style-type: none"> 1. www.unfccc.int 2. http://www.blueworldcarbon.com/ 3. http://en.wikipedia.org/wiki/Geography_of_South_Africa
/B07/	<p>Website used for the validation of Grid Emission Factor:</p> <ol style="list-style-type: none"> 1. http://financialresults.co.za/2010/eskom_ar2010/downloads/eskom_ar2010.pdf 2. http://www.eskom.co.za/content/2008EskomPoster.jpg 3. http://www.eskom.co.za/content/calculationTable.htm 4. http://www.financialresults.co.za/eskom_ar2009/ar_2009/downloads.htm 5. http://financialresults.co.za/2010/eskom_ar2010/index.htm 6. http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf

The changes between the CPA-DD version1.0 (real case), published for the 30 days stakeholder commenting period /01/ and the final version submitted for registration /02/ are addressed in the table 2 of the validation protocol as a part of this report.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

The main changes between the CPA-DD, version 1.0 /01/ published for the 30 days stakeholder commenting period and the final version /02/ submitted for registration are presented in the below table as follows:

TOPIC	CPA-DD - GSC/01/	FINAL CPA-DD/02/	ASSESSMENT
PoA title	South African Large Scale Grid Connected Solar Park Programme	South African Large Scale Grid Connected Solar Park Programme	No Change
CPA title	CPA 001 under PoA 'South African Large Scale Grid Connected Solar Park Programme'	CPA 001 under PoA 'South African Large Scale Grid Connected Solar Park Programme'	No Change
CPA Implementer	Lylaserve (Pty) Ltd	Lylaserve (Pty) Ltd	No Change
Scope	1: Energy Industries (renewable / non-renewable sources)	1: Energy Industries (renewable / non-renewable sources)	No change
Methodology / Activity	ACM0002, 12.2.0	ACM0002. (version 12.3.0).	Minor version of methodology revised in final CPA-DD as compared to web hosted CPA-DD. In the webhosted CPA-DD, version of the applied methodology was mentioned as 12.2.0.
Amount of emission reductions (tCO ₂) PA	67,941	65, 597	In the webhosted version of the CPA-DD the annual degradation in power generation for PV panels was not taken into account, which has been corrected in final rCPA-DD resulting into reduction of annual average CERs as compared to web hosted CPA-DD. Please refer CL 4 raised in table 2, and its closure.
Project Capacity	25 MW	25 MW	No change
Real case CPA starting Date	01/01/2014	01/01/2014	No Change
Choice of crediting Period	Renewable	Fixed	PP changed their option of renewable crediting period to fixed crediting period. Please refer new CL 1 raised in table 2, and its closure.
CPA Location	Southern part of Portion 6 of the Farm Wincanton 472, which lies approximately 16 km north-west of the town of Kathu and 5 km east of the small township of Dibeng in the Northern Cape	Southern part of Portion 6 of the Farm Wincanton 472, which lies approximately 16 km north-west of the town of Kathu and 5 km east of	No Change

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

	Province	the small township of Dibeng in the Northern Cape Province	
--	----------	--	--

2.2 Follow-up actions

On 24/08/2012- 25/08/2012 Carbon Check visited the project proponent and technology provider, project implementation team and CDM Consultant of the Programme of Activities to resolve questions and issues identified during the document review and to perform interviews with relevant stakeholders in the Host Country.

The key personnel interviewed and the main topics of the interviews are summarized in the table below.

SL No.	Date	Name and Role	Organization	Topic
A	24/08/2012	Jaco Uyls (Project Manager)	Lylaserve (Pty) Ltd	Project concept and Design and monitoring. PoA-DD Discussion, Baseline, additionality, monitoring and emission reduction calculation, stakeholder consultation process etc.
B	24/08/2012	Ilya Goryashin, Project Manager	BWC	Discussion on Financial of the PoA . PoA DD development and CPA development in general.
C	25/08/2012	Tinus Mans	Property owner	Stakeholder's consultation.

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

2.3 Resolution of outstanding issues

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

- It organises, details and clarifies the requirements a CPA 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 for the CPA "CPA 001 under PoA 'South African Large Scale Grid Connected Solar Park Programme'" is enclosed in Appendix A to this report.

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

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

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

A request for clarification (CL) may be raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

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

Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements as well as PoA and CPA specific issues which have to be met by the PoA and those to be included CPAs. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a PoA and those to be included CPAs are expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol as described in Figure 1.

Validation Protocol Table 1: Requirement checklist					
Checklist Item	Reference	MoV	Comments by Validation Team	Draft Conclusion	Final Conclusion
<i>The checklist items in Table 1 are linked to the various requirements of the PoA-DD which should meet, and Table 2 are linked to requirements the generic CPA-DD should meet. The checklists are organised in various sections. Each section is then further subdivided as per the requirements of the topic and the individual project activity.</i>	<i>Gives reference to the information source on which the assessment is based on</i>	<i>Means of verification (MoV) are document review (DR), interview (I) or any other follow-up actions (e.g., on site visit and telephone or email interviews) and cross-checking (CC) with available information relating to projects or technologies similar to the proposed CDM project activity under validation.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the VVM shall be covered in this section.</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.</i>	<i>In case a corrective action or a clarification the final assessment at the final validation stage is given.</i>

Validation Protocol, Table 2 - Resolution of Corrective Action Requests and Clarification			
Corrective action requests and/or clarification requests	Reference to Table 1	Response by project participants	Validation Conclusion

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

The CAR and/or CLs raised in table 1 are repeated here.	Reference to the checklist question number in Table 1 where the CAR or CL is explained.	The responses given by the project participants to address the CARs and/or CLs.	The validation team's assessment and final conclusion of the CARs and/or CLs.
---	---	---	---

2.4 Internal quality control

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

2.5 Validation team and the technical reviewer(s)

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

Validation Team		Type of Involvement						
Full Name	Role/Qualification	Supervision of work	Desk review	Site visit & Interview	Report & protocol writing	Technical Area	Reporting support	Technical Reviewer
Mr Pankaj Kumar	TL / LA	X			X	1.2,1.1, 3.1,4.5, 13.1		
Ms Ravi Shankar	TM / LA			X		1.2, 2.1, 2.2, 3.1, 13.1	X	
Mr Adam Simcock	Local Assessor						X	
Mr Barun Kumar	TM / TA		X		X	1.2	X	
Mr Vikash Kumar Singh	TR / TR					1.2, 3.1, 13.1		X

3 VALIDATION SUMMARY

Under the validation by means of document review and interviews with stakeholders, the validation team considers that the CPA description in CPA titled "CPA 001 under PoA 'South African Large Scale Grid Connected Solar Park Programme'", as described in the CDM-CPA-DD of Date 11/12/2012, version 3.0 is accurate and complete; meets the requirements to be included in the PoA titled "South African Large Scale Grid Connected Solar Park Programme" and correctly applies the baseline and monitoring methodology ACM0002. (version 12.3.0). Several clarifications and corrective actions have been raised in during the course of validation and successfully closed (please refer to table-2 of appendix A for details of closure).

3.1 CPA Design Document

The CPA-DD is in compliance with relevant form and guidance as provided by the CPA-DD template /17/ for the POA and UNFCCC requirements under the PoA.

CCL considers that the guidelines for the completion of the CPA documents in their most recent version have been followed. The Managing Entity and the CPA Implementer/s provided relevant information in the applicable CPA-DD sections.

However, several CARs/CLs have been raised and closed successfully during the course of validation. Please refer Table 2 of this report below.

3.2 CPA Description

The following description of the proposed CDM programme activity as per CPA-DD /02/ was verified:

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

The proposed CPA is developed under the large-scale PoA, 'South African Large Scale Grid Connected Solar Park Programme' and introduce Solar electrical system in Republic of South Africa. Lylaserve (Pty) Ltd is responsible for the implementation of the CPA and CME of the PoA is Blue World Carbon Asset Management (Pty) Ltd The CPA will reduce GHG emission by replacing fossil fuel fired electricity generation in the national grid of RSA.

CPA001 envisages the installation of a new grid connected Solar park at a site where no Solar farm was operated prior to the implementation of the activity.

The installed capacity of the Solar park is 25 MW. The Solar park will consist of several arrays of photovoltaic panels connected with each other to produce electricity and the associated infrastructure. The produced electricity will be supplied to the national grid of the RSA and sold via Government PPA.

Interview with the CME and CPA implementer and documents reveals that the EPC contract is expected to be signed on the 01/01/2014, and the commissioned plant is expected to be operational on the 01/04/2015. These dates have been verified from the declaration /20/ provided from the CPA implementer.

Lylaserve (Pty) Ltd (Private entity) is an entity responsible for CPA implementation and it is not a project participant for the proposed PoA.

However, CARs (1 & 3) & CL 2 were raised and closed out successfully.

Technical description of the CPA:

The proposed CPA will be implemented in the Farm Wincanton 472, which lies approximately 16 km north-west of the town of Kathu and 5 km east of the small township of Dibeng in the Northern Cape Province of the RSA and have the total installed capacity of 25 MW. The EPC contract is expected to be signed on 01/01/2014 /20/, and the commissioned plant is expected to be operational in 01/01/2015./20/. However CPA implementer has provided the declaration/28/ stating that "Lylaserve (Pty) Ltd hereby confirms that the Solar park will employ polycrystalline modules of type JKM295P-72 supplied by Jinko solar/ 05/

The tech. specification of JKM 295P-72 type of polycrystalline solar PV modules is given in the following table:

Parameter	Value
Max. power at STC (Pmax)	295 Wp
Max. power voltage (Vmp)	36.8 V
Max. power current (Imp)	8.02A
Open circuit voltage (Voc)	45.2 V
Short circuit current (Isc)	8.95A
Module efficiency	15.20%
Operating temperature	-40°C - 85°C
Maxm. System Voltage	600V (UL)/1000V (IEC) DC
Max. series fuse rating	15A
Temp. coefficient of Pmax	-0.45%/°C
Temp. coefficient of Voc	-0.27% / °C
Nominal operating cell temp. (NOCT)	45± 2°C

The above specification mentioned has been supported by the brochure/05/ of technical specification for module type JKM295P-72.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

The proposed site of the CPA is:

CPA characteristic					Characteristic of each individual activity under the CPA				
No	Name	Type	Amount of activities	Total CPA capacity, MW	Number of activity	Type of Solar modules	Capacity, MW	GPS coordinates	Commercial Operation Date
1	001	1	1	25	1	JKM295P-72	25	- 27.5975 S 22.9372 E	01/01/2015

The above mentioned geo coordinates have been validated from Environmental authorization dated 03/10/2011 and Table 4, Activity Information Form, agreement between CPA implementer and CME regarding agreement on established management system by CME, dated 19/12/2012/09/.

The lifetime of the solar park is 25 years and the same has been verified from EU: Study on PV panels supplementing the impact assessment for a recast of the WEEE directive, Final report, 14/04/2011 <http://ec.europa.eu/environment/waste/weee/pdf/Study%20on%20PVs%20Bio%20final.pdf> on page 6, paragraph 3) /23/

The starting date of CPA is 01/01/2014, i.e. the expected date of signing the EPC contract. This has been verified from the declaration/20/ provided by the CPA implementer. Whereas the starting date of crediting period is mentioned to be 01/04/2015 or the date of inclusion of the CPA in the PoA; whichever is later. This is acceptable to the DOE. Moreover the PP has selected fixed crediting period for the proposed CPA, which is in compliance to the final CPA-DD template/17/which have the option to select either renewable or fixed crediting period. However in the webhosted CPA-DD/01/, PP selected the renewable crediting period and later on during the submission of final CPA-DD/02/, PP chose to the option of fixed crediting periods and length of the crediting period as 10 years. This has been verified from the declaration/29/ provided by the CME stating that "Blue World Carbon Asset Management (Pty) Ltd has decided to change the crediting period of CPA-001 in the South African Large Scale Grid Connected Solar Park Programme from a 7 year renewable crediting period to a 10 year fixed crediting period since the project has opted First-of-its-kind barrier to demonstrate additionality, which is in line with "Guidelines on additionality of first-of-its-kind project activities, version 02.0, EB69 (Annex 7) "/ B04-11/. This seems to be logical and acceptable.

The CPA is expected to result in an average annual emission reduction of 65,597 tCO₂e /02/, /03/ for fixed crediting period of 10 years.

The CPA receives no public funding and is not registered as an individual CDM project activity or as part of another registered PoA; this has been verified from an official declaration/07/ provided by the CPA implementer. The validation team has assessed from UNFCCC website /B06-1/ and interviews that there is no other similar PoA or CDM project occurring in the CPA area and the CPA is neither registered as an individual CDM project activity or is part of another Registered PoA./07/

The information presented in the CPA documents is consistent with the actual planning and implementation of the activity confirmed in the following ways:

- A review and cross check of data and information.
- During site visit, via interviews of relevant stakeholder and personnel with project specific knowledge. In case of doubt, further cross checks through additional interviews were conducted.
- A review of information related to similar projects or technologies, which have been used if available to validate the accuracy and completeness of the project description.

In conclusion, CCL confirms that the CPA project description is sufficiently accurate and complete in order to comply with the requirements of the PoA.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

3.2.1 CPA Boundary

The CPA boundary has assessed based on documented evidence, on site visit interviews. The validation team confirms that the identified boundary, the selected sources and gases as documented in the CPA-DD are justified and in the host country of RSA which is the programme boundary/16//04/; hence all sources and GHGs required by the applied methodology/B02/ have been included within the project boundary. Validation team confirms that the identified boundary, the selected gases and sources are documented in the CPA-DD /02/ and fully in line with the requirements set by the PoA-DD/16/.

3.3 Eligibility Criteria for CPA Inclusion

Review of PoA-DD/03/, CPA-DD template/04/ and interview with representatives of CME reveals that the CME of the PoA employs clear and unambiguous criteria for the inclusion of the CPAs. The eligibility criteria have been stated and validation team confirms the eligibility criteria are in line with requirement of § 15 &16, annex 5 of EB 70/B04-5/. This also confirms to the requirement of the § 15(b) of EB 55 annex 38. Additionality demonstration and compliance with the applicability of the applied methodology are the eligibility criteria as per the PoA-DD /03/, which is deemed appropriate and acceptable to the validation team. The eligibility criteria can be checked at the CPA level by the CME and shall be confirmed by the DOE before inclusion of the CPAs in the PoA. The subject CPA meets all eligibility criteria of the PoA as assessed below:

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

SL. NO.	ELIGIBILITY CRITERIA AS STATED IN SECTION B.2 OF THE CPA-DD /02/ AND SECTION A.4.2.2 OF THE POA-DD /16/	STATUS MARKED IN CPA-DD /02/	ASSESSMENT BY THE VALIDATION TEAM
1	All activities under the CPA are in the geographical area of the Republic of South Africa (RSA).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing the following document for validation:</p> <p>Environmental Authorization from the Department of Environmental Affairs/24/ LoA dated 31/10/2012/04/</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
2	The location of each activity under the CPA is uniquely identified by the GPS coordinates. The GPS coordinates has been crosschecked with previous records of GPS coordinates of activities under the existing CPAs under this PoA to ensure that no overlap between activities can occur.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing the following document for validation:</p> <p>Final EIA report, Jan 2011/22/ Environmental authorization dated 03/10/2011 / 24/</p> <p>Table 4, Activity Information Form, agreement between CPA implementer and CME regarding agreement on established management system by CME. Dated 19/12/2012/09/.</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA</p>
3	<p>The owner of each activity under the CPA has contractually agreed and signed the following:</p> <p>a) The activity has neither been and will not be registered as a CDM project activity nor as a CPA under another PoA; and</p> <p>b) The owner is aware that the activity will be subscribed to the present PoA.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing Signed declaration of CPA developer /07/</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
4	The CME has checked the UNFCCC CDM project database to verify that none of the activities under the proposed CPA has been previously submitted to the UNFCCC. If an activity has been submitted to the UNFCCC for validation or registration, the	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing Signed declaration from CME & CPA implementor /07/</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

	activity developer has to prove that the process of validation or registration has been withdrawn.		eligibility criteria of the PoA is complied by the candidate CPA.
5	<p>The CPA is one of the following:</p> <p>a) The installation of a new Solar farm at a site where no Solar farm was operated prior to the implementation of the activity; or</p> <p>b) The installation of multiple Solar farms at various sites where no Solar farm has been operated prior to the implementation of the activities; or</p> <p>c) The capacity addition of an existing Solar farm herewith the electricity generation at existing Solar farm should not be affected by the CPA; or</p> <p>d) Multiple capacity additions of existing Solar farms herewith the electricity generation at existing Solar farm should not be affected by the CPA.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>The CPA is the installation of a new Solar park at a site where no Solar farm was operated prior to the implementation of the activity.</p> <p>This has been supported by providing Final EIA report /22/, dated: Jan 2011.</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
6	<p>Each activity under the CPA is connected to the national grid of the RSA via either:</p> <p>a) The national transmission, distribution or reticulation lines; or</p> <p>A municipal electricity network that is connected to the national transmission, distribution or reticulation lines.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing the following document for validation:</p> <p>Draft PPA/25/ declaration from the CPA developer/07/</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
7	<p>The start date of the CPA is clearly defined in the CPA-DD with supporting documentary evidence and is later than the date of start of global stakeholder process for the PoA (05/04/2012).</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>Since the date of EPC contract is taken as the estimated starting date of the proposed CPA as per CPA-DD/02/, which has not yet been signed. Moreover, a declaration for the same has been provided /20/.</p> <p>Conclusion:</p> <p>Based on the assessment of above mentioned document and interview with CME and CPA implementer, validation team concludes that this eligibility criteria of the PoA is deemed complied by the candidate CPA.</p>
8	<p>The CPA is in line with the applicability conditions of</p>	<input checked="" type="checkbox"/> Yes	<p>This has been supported by providing Signed declaration from CME /18/ that</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

	ACM0002 (version 12.3.0).	<input type="checkbox"/> NO	<p>CPA meets the methodology applicability criteria.</p> <p>Conclusion:</p> <p>Based on the assessment of CPA-DD/02/ against ACM0002 /B02/ applicability criteria and declaration from CME /18/, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
9	<p>Additionality will be demonstrated individually by the CPA according to the procedures described in the Section E.5.1 of the CDM-CPA-DD.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing Appendix of Eskom integrated report indicating list of power plants in RSA BY 31/03/2012 /21/and description in section B.5.3. In the rCPA-DD, along with evidence for FIRST-OF-ITS-KIND barrier for additionality demonstration, as mentioned under section 2.1 of this report above.</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
10	<p>The environmental impact assessment required by NEMA¹ regulation and local stakeholder consultations has been completed.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing the following document for validation:</p> <p>Environmental Authorization from the Department of Environmental Affairs/24/, 03/10/2011.</p> <p>Photo copy of newspaper where invitation was published, copies of invitation sent to local stakeholders, minutes of the meeting, list of attendance, list of comments received/22/, /26/</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
11	<p>No official Development Aid will be involved or diverted as a result of activities under the CPA. The official declarations of 'no development aid' have been provided by the Solar farm developers. If Annex 1 countries are involved, then a declaration</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing the signed declaration/07/ of CPA developer</p> <p>Conclusion:</p> <p>Based on the above assessment, validation team concludes that this</p>

¹ NEMA: National Environmental Management Act.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

	from the concerned agency in Annex 1 country should also be submitted		eligibility criteria of the PoA is complied by the candidate CPA.
12	The owner of each activity under the CPA is duly registered/incorporated entity of the RSA.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing Company registration certificate/10/ of CPA implementer.</p> <p>Conclusion: Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
13	The owner of each activity under the CPA has chosen to sell power through either the private PPA or Government PPA. In case the owner of the activity has chosen to sell power through the private PPA, the CME should monitor the records for sold electricity in order to make sure that the owner has not switched to Government PPA after the CPA inclusion. In case such switch took place, the activity will not be eligible for this PoA.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing Signed declaration/07/ from the project developer.</p> <p>Conclusion: Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>
14	A CME has checked that the CPA satisfies the eligibility criteria of the latest version of the PoA-DD.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	<p>This has been supported by providing Signed declaration/18/ from the CME.</p> <p>Conclusion: Based on the above assessment, validation team concludes that this eligibility criteria of the PoA is complied by the candidate CPA.</p>

Furthermore since applicability of applied methodology is one of the eligibility criteria, validation team has assessed compliance of subject CPA with the applicability criteria of applied methodology / B02/ as below:

This methodology is applicable to grid-connected renewable power generation project activities that: (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).- Applicable , The proposed CPA is a grid connected Solar PV power plant (at a site where no renewable power plant was operated prior to the implementation of the project activity i.e. greenfield plant). This has been checked and confirmed by the validation team based on document review /22/,/25/.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Applicability condition	Assessment
<p>The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit.</p>	<p>The CPA involves the installation of a solar power plant as verified from /07/, /08/, /21/, /28/</p>
<p>In the case of capacity additions, retrofits or replacements (except for capacity addition projects for which the electricity generation of the existing power plant(s) or unit(s) is not affected): the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity addition or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;</p>	<p>This condition does not apply to the proposed CPA. The proposed CPA is Greenfield project. Which was verified from review of documents /07/, /08/ and /28/</p>
<p>In case of hydro power plants, at least one of the following conditions must apply:</p> <ul style="list-style-type: none"> • The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or • The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m² after the implementation of the project activity; or <p>(i) The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the Project Emissions section, is greater than 4 W/m² after the implementation of the project activity</p>	<p>The CPA involves solar power and therefore it does not need to satisfy this applicability condition. which was verified from review of documents /07/, /08/ , /21/ , /24/ and /28/</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Applicability condition	Assessment
<p>In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m² after the implementation of the project activity all of the following conditions must apply:</p> <ul style="list-style-type: none"> • The power density calculated for the entire project activity using equation 5 is greater than 4 W/m²; • All reservoirs and hydro power plants are located at the same river and where are designed together to function as an integrated project that collectively constitutes the generation capacity of the combined power plant; • The water flow between the multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity; • The total installed capacity of the power units, which are driven using water from the reservoirs with a power density lower than 4 W/m², is lower than 15MW; • The total installed capacity of the power units, which are driven using water from reservoirs with a power density lower than 4 W/m², is less than 10% of the total installed capacity of the project activity from multiple reservoirs. 	<p>The CPA involves solar power and therefore it does not need to satisfy this applicability condition verified from review of documents /07/,/08/ , /21/ , /24/ and /28/</p>
<p>Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site.</p>	<p>Switching from fossil fuels to Renewable Energy is not allowed under this PoA. (According to the ACM0002, the CPA must not satisfy this applicability condition.) Verified from review of documents /07/,/08/ , /21/ , /24/ and /28/</p>
<p>Biomass fired power plants.</p>	<p>Biomass fired power plants are not eligible for a CPA under this PoA/16/</p>
<p>Hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of the reservoir is less than 4 W/m².</p>	<p>Hydro power plants are not eligible for a CPA under this PoA /16/</p>
<p>In the case of retrofits, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is “the continuation of the current situation, i.e. to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance”</p>	<p>This condition does not apply to the proposed CPA. The proposed CPA is Greenfield project. Verified from review of documents /07/,/08/ , /21/ , /24/ and /28/</p>

According to the requirements of § 17 and § 18 of annex 3 of EB 65 /B04-5/, the validation team by means of interview and through document review /06/ confirms that the CME is competent to check the features of the CPA. The CME system manual /06/ clearly mentions the roles, responsibilities and authorities within the managing entity. The validation team has also confirmed through document review and interviews the procedures to avoid double counting /06/, training and capacity development

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

for personnel, records and documentation control process, Measures for continual improvements of the PoA management /06/.

In conclusion, CCL confirms that the CPA complies with the eligibility criteria requirements of the PoA. However, CAR 1, 2, 3, 4, 5 & 6 and CL 2 were raised and successfully closed.

3.4 Additionality

The project involves installation of solar park with capacity of 25 MW at Wincanton farm 472, approximately 16 km. north-west of the town of Kathu and 5 km east of the small town ship of Dibeng in the Northern cape province of RSA by Lylaserve Pty Ltd. The project is a large scale project and accordingly project developer has applied approved methodology ACM0002 /B02/ and demonstrated the additionality of the project activity in conformity with PoA, using Additionality Tool (version 07) /B04-7/ read with Guidelines on additionality of first-of-its-kind project activities" version 02.0, Annex 7, EB 69.

3.4.1 Prior Consideration of CDM

The project implementation has not yet commenced and the expected start date of the project is 01/01/2014 which is signing of EPC contract /20/. Since the project developer had not undertaken any construction or any real action for the implementation of the project activity till date, as per Glossary of CDM Terms (version 7), the project activity has not yet '*started*'

The real case CPA-DD was webhosted for Global Stakeholders' Comments (GSC) on 05/04/2012, which is prior to the start date of the project activity (the project activity has not yet started) and after 02/08/2008. Therefore, this is a *new project activity*. As per paragraph 2 of Annex 13, EB 62 /B04-11/, prior intimation to UNFCCC and DNA is not necessary in cases where the start date of the project activity is after the web-hosting for GSC. Validation team, therefore, concludes that the CPA confirms to Annex 13, EB 62 /B04-10/ and Annex 26, EB 60/B04-13/.

Alternatives

The CPA identifies two alternatives, viz., the project activity being taken up without being registered as CDM activity and *status quo*. However, as the project activity is based on approved methodology ACM0002 /B2/ and the methodology has prescribed the baseline, as per paragraph 105 of VVM (01.2) /B01/, discussion on alternatives is not necessary.

Approach for demonstrating CPA additionality

The additionality of the project has been demonstrated in conformity with methodology ACM 0002, version 12.3.0/B02/, read with the "Tool for demonstration and assessment of additionality (ver. 07) /B04-7/. For the above reasons, this approach has been assessed to be appropriate for the assessment of additionality for this project activity

Appropriateness of Additionality Demonstration

The CPA operator has demonstrated that additionality of the project using 'first-of-its-kind' barrier. Additionality Tool and PoA-DD provide for the demonstration of additionality using 'first-of-its-kind' barrier. Where the project is demonstrated to be 'first-of-its-kind' in conformity with latest version of the "Guidelines on additionality of first-of-its-kind project activities" (Annex 7, EB 69) /B04-14/, the additionality of the project will be deemed to have been demonstrated. Since the CPA operator has demonstrated the project to be 'first-of-its-kind', based on the methodology prescribed in Annex 7, EB 69 /B04-14/, validation team concludes the additionality demonstration to be appropriate.

First-of-its-kind barrier

The project involves the generation and supply of electricity (output) to the grid (Eskom, National grid of South Africa), using solar energy (technology) in the country (geographical region i.e. Republic of South Africa) and has opted for a fixed crediting period (10 years with no renewal).

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

As per Annex 7, EB 69 / B04-14, a project qualifies to be declared as 'first-of-its-kind' if

- a) the project is the first in the applicable geographical area to apply a technology that is different from technologies that are implemented by any other project, which are able to deliver the same output and have started commercial operation in the applicable geographical area before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of the proposed project activity, whichever is earlier;
- b) The project implements one or more of the measures as defined in paragraph (2) of the Annex; and
- c) The project participants selected fixed crediting period for the project activity

Demonstration of the conformity of the project activity to the first condition requires defining geographical area, output and technology. These three parameters are discussed in the following paragraphs:

Geographical area / 22/: The applicable geographical area for this project is Republic of South Africa.

Output: Electricity to be supplied to the national grid/ 25/, /07/.

Different technology: To differentiate the technology employed by the project activity vis-à-vis others delivering the same output/service, Annex 7, EB 69/B04-14/, provides three parameters, viz., energy source/fuel, feed stock and size of installation.

Since the project is generating electricity, feed stock is not applicable. Therefore, only energy source/fuel and size of installation are applicable.

The installed capacity of the solar park of candidate project is 25 MW; There is not a single project activity similar to the proposed CPA i.e solar park which uses PV solar electrical system and supply electricity to the national grid of the RSA in the Republic of South Africa with an installed capacity more than 15 MW, which have started commercial operation before 05/04/2012.in the geographical area which was confirmed with the list of power plant servicing the grid and their capacity as presented in Appendix to Eskom Integrated report as available on 31/03/20122 . As can be seen there is no power plants similar to the proposed project activity which started commercial operation before 05/04/2012.

Therefore, validation team concludes that the project is the first in the applicable geographical area to apply a technology that is different from technologies, that are implemented by any other project (using renewable energy), which are able to deliver the same output (electricity) and have started commercial operation in the applicable geographical area (Republic of South Africa) before the project design document (CDM-PDD) is published for global stakeholder consultation (05/04/2012, which is earlier to the start date of the project activity as the implementation of the project is yet to commence). Therefore, the project fulfills the first condition.

The second condition relates to the measure. The project activity should fulfill one of the four measures given in the Annex 7, EB 69/B04-14/. The candidate project will generate electricity by installation of solar park based on solar PV module. Therefore, the project involves the measure of 'power generation from renewable energy' and therefore the project fulfills the second condition.

Project developer has opted for fixed crediting period. The crediting period is given transparently in Sec. A.4.3 of CPA-DD/02/. Therefore; the project fulfills the third condition.

Besides, the CPA operator has also furnished Appendix to Eskom Integrated report/21/ issued by ESKOM dated 03/03/2012 which confirms that the proposed CPA is the first instance of any such installation of solar park in Republic of South Africa. Eskom is National grid of South Africa which is responsible for electricity, generation and distribution of electricity in South Africa. . Thus Validation team concludes that ESKOM is a credible Government agency having accurate information on various renewable energy projects in South Africa. Thus information provided by ESKOM can be considered as authentic.

² Appendix to Eskom Integrated report, Divisional Report, Power station commercial capacities, download file situated under "Excel downloads", http://financialresults.co.za/2012/eskom_ar2012/integrated-report/popup-downloads.php

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

This confirms the claim of the project developer that the project is a 'first-of-its-kind' in the geographical area.

As all the three conditions stipulated in Annex 7, EB 69/B04-14/ are fulfilled, validation team concludes that the project is a 'first-of-its-kind' project activity in the geographical area; Since the project is a 'first-of-its-kind', the project is additional.

Conclusion

In the above background, Validation Team concludes that the project activity conforms to PoA, is not a business-as-usual scenario and is additional. CDM benefits, therefore, would enable the project activity to alleviate the risks associated with 'first-of-its-kind' barrier.

3.4.2 Common practice analysis

As per additionality tool "Unless the proposed project type has demonstrated to be first-of-its kind (according to Sub-step 3a), and measures different from those listed in paragraph 6 the above generic additionality tests shall be complemented with an analysis of the extent to which the proposed project type (e.g. technology or practice) has already diffused in the relevant sector and region. This test is a credibility check to complement the investment analysis (Step 2) or barrier analysis (Step 3)."

PP has demonstrated the subject project as FOIK, assessed as above; hence demonstration of common practice analysis is not required, and hence acceptable to the validation team.

3.4.3 Conclusion

In the above background, Validation Team concludes that the project is not a business-as-usual scenario and is additional.

Carbon Check confirms that all data, rationales, justifications and documentation provided by the project participant(s) to support demonstration of additionality are credible and reliable.

In conclusion, the proposed project activity complies with all criteria of "Tool for the demonstration and assessment of additionality" and "Guidelines on additionality of first-of-its-kind project activities, ver. 2.0" and the proposed project is additional.

Based on the above validation team concludes that the project fulfils the criteria laid down for Common Practice Analysis and hence accepts that proposed CPA is not a common practice in the selected geographical area, thus additional.

However, CL 4 was raised and closed successfully.

3.5 Emission Reduction

3.5.1 Parameters determined ex-ante

As per the PoA DD and g-CPA DD template, the following parameters that are determined ex-ante are:

DATA/PARAMETER	UNIT	VALUE
$EF_{grid,CM}$	tCO ₂ /MWh	0.988
$P_{i,y}$	MW	25

In summary, the parameters determined ex-ante has been presented correctly according to PoA DD and g-CPA DD.

3.5.2 Emission reduction calculation

The CPA-DD confirms to meet the procedures provided in the methodology /B02/ and PoA-DD /16/. The formulae are correctly presented for the determination of baseline emission reductions.

Being a Solar energy project consideration of project emission and leakage emission as zero, is found to be in line with the applied methodology ACM0002 version 12.3.0 /B02/.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Estimation of Emission Reduction presented in the real case CPA-DD and corresponding ER spread sheet /03/ is transparent and traceable to the validation team. Estimation of emission reduction is conducted using accurate formulae and equations as stipulated in the applied methodology ACM0002/B02/ and hence found appropriate.

The amount of electricity which is produced by the solar park was determined based on the irradiation intensity of the site by Acciona and independently verified by GL Garrad Hassan for the installed capacity of 75 MW. Since the present CPA generates 25 MW, the annually net electricity generation was adjusted accordingly by multiplying $EG_{\text{facility}, y}$ calculated for 75 MW by correction factor (25/75) which was confirmed from CPA-DD/02/ and ER sheet / 03/.

However CL 4 was raised and closed successfully.

3.6 Monitoring Plan

The monitoring plan presented in the CPA-DD /02/ complies with the requirements of the PoA-DD /16/, the applied monitoring methodology /B02/. The assessment team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The assessment team through document review and on site interviews with the relevant personnel has reviewed the procedures. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the CME and the CPA implementer. Specifically, these points include the monitoring methodology, data management, quality assurance and quality control procedures to be implemented in the context of the activity.

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

- $EG_{CPA, y}$: Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CPA in year y.

In summary, the parameter determined ex-post has been presented correctly according to requirements related to monitoring procedure and is considered in accordance with the applied methodology /B02/.

The responsibilities and institutional arrangements for data collection, reporting and archiving have been clearly provided. The information provided in the CPA-DD /02/ could be confirmed based on the interviews and also through the submitted documentary evidence namely CME management system /06/ covering all requirements as stated in section E.7.2 of PoA DD/16/. Based on the same, it can be confirmed that the CME and the CPA implementer will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.

However CL 3 was raised and closed successfully

3.7 Stakeholder Consultation

The local stakeholder consultation has been done at the CPA level. This is deemed appropriate in the context of the CPA of the PoA. The project owner appointed Savannah Environmental (Pty) Ltd to undertake local stakeholder consultation. The public involvement process was undertaken by Sustainable Futures ZA in terms of the NEMA EIA Regulations and CDM requirements based on the Kyoto protocol. For the LSH consultation stakeholder were informed through newspaper advertisement and public notice /26/.

The comments raised by the local stakeholder were generic in nature. The same has been assessed by reviewing the comment sheet/26/ interview with the local stakeholder and PP. in addition to this final EIA report/22/ was also assessed which clearly indicates the LSC process and procedure, which is authorised by Department of Environmental Affairs/24/. Local stakeholder have been given ample

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

time to comment on the proposed CPA, which can be traced from the invitation mode used/26/.

Hence based on above it can be concluded that local stake holder consultation is conducted prior to the webhosting of CPA-DD/01/ and fulfils the requirement of paragraph number 128 and 129 of VVM/B01/.

However, CAR 7 was raised during the validation process and successfully closed.

3.8 Environmental Analysis

The Environmental Impact Assessment (EIA)/22/ of the proposed Solar farm is carried out in accordance with the South African legislation by Savannah Environmental (Pty) Ltd. The Final EIA Report was submitted to the Department of Environmental Affairs for a decision in November 2010. Environmental authorisation/24/ was obtained by means of a Record of Decision (ROD) that was issued by the department on 3 October 2011 and found to be appropriate in proposed CPA context.

In RSA there is EIA governing act NEMA (National Environmental Management Act) 107 of 1998, amended in June 2010, the same was verified by the validation team.

Based on above it can be concluded that environmental analysis done is in accordance with the requirement of paragraph 132 of VVM /B01/, hence appropriate.

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Validation Protocol CDM-CPA-DD

CPA Title: CPA 001 under PoA ‘South African Large Scale Grid Connected Solar Park Programme’

Table 1: Conformity of CDM Programme Activity (CPA)

Checklist Question	Ref	MoV	Assessment	Draft Concl.	Final Concl.
A. General description of CPA					
A.1. Geographical location and unique identification of CPA					
A.1.1 Are the CPA's spatial boundaries (geographical) clearly defined, allowing the unique identification of the CPA?	/01/	DR, I	Geographic reference of the CPA has been provided in terms of GPS coordinates in Section A.4.1.2. of the specific CPA-DD, allowing unique identification of the CPA. It has been confirmed during an on-site inspection and from LoA of Host country that the CPA falls within RSA, the geographical boundary of the proposed PoA.	OK	OK
A.1.2 Are the CPA's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	/01/	DR	As described in Section A.4. of the Specific CPA-DD, CPA001 is the installation of a new grid connected solar park at a site where no solar park was operated prior to the implementation of the CPA.	OK	OK
A.1.3 Has it been demonstrated that the CPA is within the geographical borders of the PoA?			Refer Section A.1.1. above.	OK	OK
A.1.4 Has it been confirmed that no part of the CPA is registered as a CDM project or included in another registered POA?	/01/	DR, CC	The CME has not provided the evidence as per PoA eligibility criterion (b) as listed in Table A.4-2 in Section A.4.2.2. of the PoA-DD. Hence a CAR has been raised.	CAR-1	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

			<p>CAR 1:</p> <p>CME has not provided evidence substantiating that double counting of emission reductions does not occur.</p>		
A.2. Participation requirements					
A.2.1 Which Parties and CPA implementers are participating in the CPA? Are they included in the PoA?	/01/	DR	<p>As stated in Section A.4.1.1. the Party (RSA) is in line with the PoA-DD and the entity/individual responsible for the CPA is Lylaserve (Pty) Ltd, as per Section A.3. of the Specific CPA-DD. However evidence to support ownership has not been submitted to DOE for validation. Hence a CAR has been raised.</p> <p>CAR 2:</p> <p>CME has not submitted evidence substantiating CPA Ownership to DOE for validation.</p>	CAR 2	OK
A.3. Duration of the CDM programme activity, Crediting Period					
A.3.1 Are the CPA's starting date and operational lifetime clearly defined and evidenced?	/01/	DR, CC	<p>As stated in Section A.4.2.1. of the Specific CPA-DD, the start date of the CPA is 01/01/2014, which is later than 05/04/2012, the date on which the CDM-PoA-DD has been first published for global stakeholder consultation.</p> <p>As stated in Section A.4.2.2. of the Specific CPA-DD, the expected operational lifetime of the CPA is 30 years and 0 months.</p>	OK	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

<p>A.3.2 Has the crediting period been clearly defined and is the start of the crediting period deemed to be reasonable?</p>	<p>/01/</p>	<p>DR, I</p>	<p>As stated in Section A.4.3. of the Specific CPA-DD, the project participants have selected a renewable crediting period.</p> <p>As stated in Section A.4.3.1. of the Specific CPA-DD, the starting date of the crediting period is 01/01/2015 or the date of inclusion of the CPA in the PoA.</p>	<p>OK</p>	<p>OK</p>
<p>A.3.3 Has it been confirmed that the length of the CPA crediting period does not exceed the end of PoA?</p>	<p>/01/</p>	<p>DR</p>	<p>It has not been confirmed that the duration of the CPA crediting period shall not exceed the end date of the PoA. Hence a CL has been raised.</p> <p>CL 1: It is not evident how the CME evaluates that the crediting period of the CPA will not exceed the end of the PoA.</p> <p>New CL: Please justify choice of crediting period as additionality demonstration based on First-of-its-kind barrier</p>	<p>CL1</p>	<p>OK</p>
<p>B. Eligibility of CPA and Estimation of Emission Reductions</p>					
<p>B.1. Eligibility criteria for CDM Programme Activities: <i>It is assessed whether the CPA complies with the criteria for inclusion in the registered programme of activities.</i></p>					
<p>B.1.1 Is the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA?</p>	<p>/01/ /B02/</p>	<p>DR, CC</p>	<p>As stated in Table B.2-1 of the Specific CPA-DD, the CPA is located in the Northern Cape province of the RSA, within the geographical area of RSA, hence consistent with the geographical boundary set in the PoA.</p>	<p>OK</p>	<p>OK</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

<p>B.1.2 Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo).</p>	<p>/01/</p>	<p>DR, CC</p>	<p>Double counting has been discussed as a PoA eligibility criterion for CPA inclusion in Table A.4-2 in Section A.4.2.2. of the PoA-DD. Criterion (b) defines double counting, however verifiable evidence has not been submitted to DOE to validate the same. Hence a CAR has been raised.</p> <p>CAR 3: CME has not submitted verifiable evidence supporting that double counting has been evaluated as a PoA eligibility criterion.</p>	<p>CAR 3</p>	<p>OK</p>
<p>B.1.3 The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications?</p>	<p>/01/ /B02/</p>	<p>DR, I</p>	<p>The CPA is the installation of a solar park at a site where no solar park was operated prior to the implementation of the CPA and connected to the national grid of the RSA, thus in accordance with applicability conditions of the applied methodology ACM0002.</p>	<p>OK</p>	<p>OK</p>
<p>B.1.4. Conditions to check the start date of the CPA through documentary evidence.</p>	<p>/01/</p>	<p>DR, CC</p>	<p>The start date has been discussed as a PoA eligibility criterion for CPA inclusion in Table A.4-2 in Section A.4.2.2. of the PoA-DD. Criterion (d) defines conditions to check the start date, however verifiable evidence has not been submitted to DOE to validate the same. Hence a CAR has been raised.</p> <p>CAR 4: CME has not submitted verifiable evidence supporting that the start date has been evaluated as a PoA eligibility criterion.</p>	<p>CAR 4</p>	<p>OK</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

<p>B.1.5. Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs</p>	<p>/01/ /B02/</p>	<p>DR, CC</p>	<p>Applicability of the methodology has been discussed as a PoA eligibility criterion for CPA inclusion in Table B.2-1 in Section B.2. of the CPA-DD. Criterion (7) states that the CPA is in line with the applicability conditions of the applied methodology, however verifiable evidence/evaluation of compliance has not been submitted to DOE to validate the same. Hence a CAR has been raised.</p> <p>CAR 5: CME has not submitted verifiable evidence/evaluation of compliance supporting that the CPA is in line with the applicability conditions of the applied methodology.</p>	<p>CAR 5</p>	<p>OK</p>
<p>B.1.6. The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality</p>	<p>/01/ /B02/ /B03/ /B04/</p>	<p>DR</p>	<p>Additionality has been demonstrated at CPA level as per the Tool for the demonstration and assessment of additionality as required per the applied methodology ACM0002 which meets the eligibility criterion for inclusion of the CPA in the PoA. This needs to be verified after closure of CAR 4 pertaining to the checklist requirements of the PoA-DD as described in the table above.</p>	<p>Refer CAR 4 pertaining to PoA-DD</p>	<p>OK</p>
<p>B.1.7. The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis.</p>	<p>/01/ /B02/ /B03/ /B04/</p>	<p>DR</p>	<p>As required by applicable legislation, a scoping assessment and EIA is required for project activities with an electricity output of more than 20 MW, hence as described in Section D.2. of the Specific CPA-DD, an EIA has been undertaken including a local stakeholder consultation as part of the EIA-phase.</p> <p>Moreover, in Table B.2-1 in Section B.2. of the Specific CPA-DD, item 10 refers to Sections D & E, which is incorrect and should be C & D, as the respective Sections on Environmental analysis and Stakeholders' comments in the Specific CPA-DD.</p>	<p>OK</p>	<p>OK</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

<p>B.1.8. Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance.</p>	/01/	DR, CC	<p>Funding from Annex I parties has been discussed as a PoA eligibility criterion for CPA inclusion in Table A.4-2 in Section A.4.2.2. of the PoA-DD. Criterion (h) defines the conditions to provide affirmation that funding from Annex I parties, if any, does not result in a diversion of ODA, however verifiable evidence has not been submitted to DOE to validate the same. Hence a CAR has been raised.</p> <p>CAR 6: CME has not submitted verifiable evidence supporting that diversion of ODA has been evaluated as a PoA eligibility criterion.</p>	CAR 6	OK
<p>B.1.9. Are the target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation) well defined and documented in the CPA?</p>	/01/	DR, CC	<p>As stated in Table A.4-2 of the PoA-DD, a target group or distribution mechanism is not relevant for this PoA, hence the criterion has not been justified in Table B.2-1 of the Specific CPA-DD.</p>	OK	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.1.10. Where applicable, have the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys been applied?	/01/	DR, CC	As stated in Section A.4.4.2. of the PoA-DD, each CPA will be subject to verification, hence this inclusion-criterion is not applicable.	OK	OK
B.1.11. Have the conditions that ensure that every CPA in aggregate meets the small-scale or micro-scale threshold criteria and remains within those thresholds throughout the crediting period of the CPA been applied?	/01/	DR, CC	As stated in Table A.4-2 of the PoA-DD, this criterion is not applicable as CPAs will only apply the large scale methodology ACM0002.	OK	OK
B.1.12. Where applicable, have the requirements for the de-bundling check, in case CPAs belong to small-scale (SSC) or micro-scale project categories been fulfilled?			Refer to section B.1.11. not applicable as only Large Scale project activities are considered in the PoA.	OK	OK
B.1.13. A CME has checked that the CPA satisfies the eligibility criteria of the latest version of the PoA-DD.	/01/	DR, CC	As stated in Table B.2-1 of the Specific CPA-DD, the CME agrees that the CPA satisfies the eligibility criteria of this PoA. However this has not been substantiated. Hence a CL has been raised. CL 2: The project participant is requested to explain how the CPA meets the last eligibility criterion as identified by the CME: "A CME has checked that the CPA satisfies the eligibility criteria of the latest version of the PoA-DD".	CL2	OK

B.2. Additionality: *It is assessed whether the CPA complies with the eligibility criteria for demonstrating additionality of a CPA under the registered programme of activities.*

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.2.1 Has it been sufficiently justified that the CPA complies with additionality criteria 1?			Refer CAR 4 and CAR 11 pertaining to the PoA-DD.	Refer CAR 4 and CAR 11 of PoA-DD	OK
B.2.2 Has it been sufficiently justified that the CPA complies with additionality criteria 2?			Refer CAR 4 and CAR 11 pertaining to the PoA-DD.	Refer CAR 4 and CAR 11 of PoA-DD	OK
B.2.3 Has it been sufficiently justified that the CPA complies with additionality criteria 3?			Refer CAR 4 and CAR 11 pertaining to the PoA-DD.	Refer CAR 4 and CAR 11 of PoA-DD	OK
B.3. Calculation of GHG Emission Reductions – Project emissions: <i>It is assessed whether the project emissions are stated according to the methodology and the PoA-DD</i>					
B.3.1 Is the calculation of project emissions of the CPA in accordance with the procedure described in the PoA-DD?	/01/ /B03/	DR, CC	As stated in Section E.6.2. of the PoA-DD and based on the applied methodology ACM0002, the project emission are equal to zero.	OK	OK
B.3.2 Are CPA-specific conservative assumptions used when calculating the project emissions?			Refer section B.3.1. above.	OK	OK
B.3.3 Are CPA-specific uncertainties in the project emission estimates properly addressed?			Refer section B.3.1. above.	OK	OK
B.4. Calculation of GHG Emission Reductions – Baseline emissions: <i>It is assessed whether the baseline emissions are stated according to the methodology and the PoA-DD and whether the argumentation for the choice of default factors and values – where applicable – is justified.</i>					

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.4.1 Is the calculation of baseline emissions of the CPA in accordance with the procedure described in the PoA-DD?	/01/ /B03/	DR	Yes, the calculation of the baseline emissions of the CPA is in accordance with the procedure described in Section E.6.2. of the PoA-DD.	OK	OK
B.4.2 Are CPA-specific conservative assumptions used when calculating the baseline emissions?	/01/ /B03/	DR, CC	<p>All assumptions and choices when calculating baseline emissions are as per the approved methodology ACM0002, hence conservative assumptions have been used.</p> <p><i>As per methodology ACM0002, it is assumed that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants.</i></p> <p><i>As stated in Section E.6.2. of the PoA-DD, based on most recent data on the electricity supplied to the national grid of the RSA, the share of low-cost/must-run sources constitutes 7.03% of total grid generation in average of the five most recent years.</i></p> <p><i>However, Please justify the calculation of electricity generation from CPA001 and provide references and supporting documents</i></p> <p><i>hOEVER</i></p>	CL4	OK
B.4.3 Are CPA-specific uncertainties in the baseline emission estimates properly addressed?	/01/ /B02/	DR	Uncertainties in estimation of the baseline scenario have not been identified.	OK	OK
B.5. Calculation of GHG Emission Reductions – Leakage: <i>It is assessed whether leakage emissions are stated according to the methodology and the PoA-DD and whether the argumentation for the choice of default factors and values – where applicable – is justified.</i>					
B.5.1 Is the calculation of leakage emissions of the CPA in accordance with the procedure described in the PoA-DD?	/01/ /B03/	DR, CC	As per ACM0002, no leakage emissions are considered.	OK	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.5.2 Are CPA-specific conservative assumptions used when calculating the leakage emissions?	/01/ /B03/		Refer section B.5.1. above.	OK	OK
B.5.3 Are CPA-specific uncertainties in the leakage emission estimates properly addressed?	/01/ /B03/		Refer section B.5.1. above.	OK	OK
<i>B.6. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change.</i>					
B.6.1 Has it been demonstrated that the total emission reductions of the CPA will be real, measurable and give long-term benefits related to the mitigation of climate change	/01/ /B03/	DR, CC	Refer Section E.8.1. of Table 2 Checklist Requirements, pertaining to the PoA-DD. The ex-ante estimation of emission reductions, as presented in B.5.3. of the Specific CPA-DD, have been calculated according to the applied methodology ACM0002 which is being demonstrated in a clear and correct way in Section E.6.2. of the PoA-DD; i.e. procedures have been correctly applied, selection between options provided by the methodology have been explained in the PoA-DD and formulae/equations have been correctly presented.	OK	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.7. Monitoring Methodology: <i>It is assessed whether the CPA applies an appropriate monitoring methodology.</i>					
B.7.1 Is the monitoring plan for the CPA documented according to the approved methodology, in accordance with the programme of activities and in a complete and transparent manner?	/01/	DR, CC	The description of the monitoring plan for CPA 001 under PoA 'South African Large Scale Grid Connected Solar Park Programme' is in accordance to the approved methodology, however this needs to be confirmed based on closure of CAR 6 pertaining to PoA-DD. Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK
B.7.2 Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs for this programme, whichever occurs later?	/01/ /02/	DR	Refer CAR 12 pertaining to PoA-DD	Refer CAR 12 of PoA-DD	OK
B.8. Data and Parameters Available at Validation: <i>It is established whether appropriate values were selected for parameters determined ex-ante.</i>					
B.8.1 Does the applied methodology allow determining the selected values <i>ex-ante</i> ?	/01/	DR	Yes, the methodology allows for the combined margin CO ₂ -emission factor to be determined ex-ante.	OK	OK
B.8.2 Have adequate assumptions been used for determining the values and are underlying calculations correct?	/01/	DR, CC	Adequate assumptions have been made according to the approved methodology ACM0002 and calculations have been made as per the tool to calculate the emission factor for an electricity system.	OK	OK
B.8.3 Has sufficient documentary evidence been presented to verify the selected values or to verify the input data used in the calculation of the values of the parameters determined <i>ex-ante</i> .	/01/	DR	Adequate evidence has been submitted to verify the values for the Power Capacity of the CPA in year y and to verify the value of the Load Factor of the CPA.	OK	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.9. Ex-Post Monitoring: <i>It is established whether the monitoring plan provides for reliable and complete emission data over time.</i>					
B.9.1 Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the CPA boundary during the crediting period?	/01/	DR, CC	Yes, the monitoring plan does provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the programme boundary during the crediting period. Refer section E.10.1 of Table 2 Checklist Requirements pertaining to the PoA-DD above.	OK	OK
B.9.2 Are the choices of CPA GHG indicators reasonable and conservative?	/01/	DR, CC	The programme GHG indicators have been chosen in line with the approved methodology ACM0002. Refer section E.10.2. of Table 2 Checklist Requirements pertaining to the PoA-DD.	OK	OK
B.9.3 Is the measurement method clearly stated for each GHG value to be monitored and deemed appropriate?	/01/	DR, CC	The only GHG is CO2 and the only parameter is net electricity delivered to the grid and deemed to be appropriate.	OK	OK
B.9.4 Is the measurement equipment described and deemed appropriate?	/01/	DR	Electricity delivered to the grid is being measure by installed energy meters which is deemed to be appropriate.	OK	OK
B.9.5 Is the measurement accuracy addressed and deemed appropriate? Are procedures in place on how to deal with erroneous measurements?	/01/	DR	SABS approved meters have been installed.	OK	OK
B.9.6 Is the measurement <i>interval</i> identified and deemed appropriate?	/01/	DR, CC	Continuous measurement with monthly recording will be applied for the CPA which is in line with the applied methodology.	OK	OK
B.9.7 Is the <i>registration, monitoring, measurement and reporting</i> procedure defined?	/01/	DR, CC	Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.9.8 Are procedures identified for <i>maintenance</i> of monitoring equipment and installations? Are the calibration intervals being observed?	/01/	DR, CC	Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK
B.9.9 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	/01/	DR, CC	Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK
B.10. CPA Management Planning: <i>It is checked that programme implementation is properly prepared for and that critical arrangements are addressed</i>					
B.10.1 Is the authority and responsibility of overall CPA management clearly described?	/01/	DR, CC	Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK
B.10.2 Are procedures identified for training of monitoring personnel?	/01/	DR, CC	Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK
B.10.3 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	/01/	DR, CC	As described in Section E.7.2. of the PoA-DD, procedures for emergency situations have been identified.	OK	OK
B.10.4 Are procedures identified for review of reported results/data?	/01/	DR, CC	Refer CAR 6 pertaining to PoA-DD	Refer CAR 6 of PoA-DD	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

B.10.5 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	/1/	DR, CC	As described in Section E.7.2. of the PoA-DD, specialists of the CME shall carry out annual test verifications, however it has not been clearly described what the scope of the annual test verifications entails. Hence a CL has been raised. CL 3: The CME is required to clarify the scope of the annual test verifications.	CL 3	OK
C. Environmental impacts: <i>It is assessed whether environmental impacts of the CPA have been properly addressed. (Analysis at PoA level/CPA level)</i>					
This section must only be completed if the analysis of environmental impacts must be at CPA level					
C.1. Has an analysis of the environmental impacts of the CPA been sufficiently described?	/01/ /22/	DR, CC	Section C.2. of the Specific CPA-DD contains a description of the outcomes of the analysis of the environmental impacts and 6 potential impacts of low to medium significance have been identified.	OK	OK
C.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA)?	/01/ /22/	DR, CC	As described in Section C.3. of the PoA-DD, according to The National Environmental Management Act, a solar park with an electricity output of over 20 MW requires the undertaking of a scoping assessment and an EIA.	OK	OK
C.3. Will the programme create any adverse environmental effects?	/01/ /22/	DR, CC, I	No negative environmental impacts have been identified, which was confirmed during an interview with a local stakeholder during site-visit.	OK	OK
C.4. Are transboundary environmental impacts considered in the analysis?	/01/ /22/		Refer section C.3. above	OK	OK

--	--	--	--	--	--

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

C.5. Have identified environmental impacts been addressed in the programme design?	/01/ /22/		Refer section C.3. above	OK	OK
C.6. Does the programme comply with environmental legislation in the host country?	/01/ /22/		Refer section C.3. above	OK	OK
D. Stakeholders' comments: <i>It is assessed whether stakeholders have been properly consulted in the development of the CPA. (Consultation at PoA level / CPA level)</i>					
This section must only be completed if the local stakeholder consultation is at PoA level.					
D.1. Have relevant stakeholders been consulted?	/01/	DR, I	Yes relevant stakeholders have been interviewed, e.g. property owner. Issues such as security fence have been identified and have been addressed accordingly by CPA owner.	OK	OK
D.2. Have appropriate media been used to invite comments by local stakeholders?	/01/	DR	Yes, as described in Section D.2. of the Specific CPA-DD, media used for inviting local stakeholders for commenting have been advertisements in local newspapers and notifications by letter, fax or email.	OK	OK
D.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	/01/	DR, CC	As described in Section D.1. of the Specific CPA-DD, stakeholder comments is part of the EIA. In Addition a specific CDM stakeholders meeting was organised on 27/03/2012.	OK	OK
D.4. Is a summary of the stakeholder comments received provided?	/01/	DR, CC	Stakeholder comments have been summarised in a Comments and Response Reports but have not been provided in the Specific CPA-DD, hence a CAR has been raised. CAR 7: A summary of the stakeholder comments has not been provided in the Specific CPA-DD.	CAR 7	OK
D.5. Has due account been taken of any stakeholder comments received?	/01/ /09/	DR, CC	As stated in Section D.3. and D.4., no negative comments were raised by the stakeholders. All stakeholders' comments and	OK	OK

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

			concerns were taken into account and considered in EIA and environmental management plan.		
--	--	--	---	--	--

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

Table 2: Resolution of Clarification and Corrective Action Requests (rCPA-DD)

REQUESTS BY VALIDATION TEAM	REF TO TABLE 1	PROJECT PARTICIPANT'S RESPONSE	VALIDATION TEAM CONCLUSION
CORRECTIVE ACTION REQUESTS			
CAR 1: CME has not provided evidence substantiating that double counting of emission reductions does not occur.	A.1.4.	Please refer to <i>Annexure 4 - Lylaserve CPA 001 Declaration.pdf</i>	A declaration from CPA implementor (Lylaserve Pty Ltd.) dated 10/12/2012 stating that, CPA-001 has neither been and will not be registered as CDM project activity, nor as a CPA under another PoA, which is found to be appropriate. CAR Closed
CAR 2: CME has not submitted evidence substantiating CPA ownership to DOE for validation.	A.2.1.	Please refer to <i>Annexure 10 - Lylaserve Incrop. Certificate.pdf</i>	Incorporation certificate of Lylaserve Pty Ltd. dated 09/12/2011 with registration no. 2011/145061/07 has been provided for validation. CAR Closed
CAR 3: CME has not submitted verifiable evidence supporting that double counting has been evaluated as a PoA eligibility criterion.	B.1.2.	Please refer to <i>Annexure 4 - Lylaserve CPA 001 Declaration.pdf</i> and <i>Annexure 8 - Declaration from the CME of Checking UNFCCC and eligibility criteria.pdf</i>	Declarations from Lylaserve Pty Ltd. dated 10/12/2012 and 29/10/2012 has been provided for validation which confirms that double counting has been evaluated as PoA eligibility criteria. CAR Closed

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

<p>CAR 4: CME has not submitted verifiable evidence supporting that the start date has been evaluated as a PoA eligibility criterion.</p>	<p>B.1.4.</p>	<p>Please refer to <i>Annexure 5 - Lylaserve CPA 001 Declaration of the expected started dates.pdf</i></p>	<p>A declaration dated 10/12/2012 has been provided by Lylaserve Pty Ltd, which indicates expected start date and date of expected commissioning which confirms that start date of the proposed project activity has been evaluated as PoA eligibility criteria.</p> <p>CAR Closed</p>
<p>CAR 5: CME has not submitted verifiable evidence/evaluation of compliance supporting that the CPA is in line with the applicability conditions of the applied methodology.</p>	<p>B.1.5.</p>	<p>Please refer to <i>Annexure 8 - Declaration from the CME of Checking UNFCCC and eligibility criteria.pdf</i></p>	<p>CME has provided a declaration dated 29/10/2012 confirming that CPA is in line with applicability conditions of applied methodology.</p> <p>CAR Closed</p>
<p>CAR 6: CME has not submitted verifiable evidence supporting that diversion of ODA has been evaluated as a PoA eligibility criterion.</p>	<p>B.1.8.</p>	<p>Please refer to <i>Annexure 4 - Lylaserve CPA 001 Declaration.pdf</i></p>	<p>A declaration dated 10/12/2012 provided by CPA implementer confirming that ODA is not involved in proposed project activity and project activity does not result into diversion of any ODA funding.</p> <p>CAR Closed</p>
<p>CAR 7: A summary of the stakeholder comments has not been provided in the Specific CPA-DD.</p>	<p>D.4.</p>	<p>Please refer to Annexure 11.1 - Stakeholder comments and advert.pdf</p>	<p>Summary of stakeholders comments now provided in revised CPA-DD and supporting documents for stakeholders meeting conducted also provided for validation which are found to be appropriate.</p> <p>CAR Closed</p>

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

CLARIFICATION REQUESTS			
<p>CL 1: It is not evident how the CME evaluates that the crediting period of the CPA will not exceed the end of the PoA.</p> <p>New CL Please justify choice of crediting period as additionality demonstration based on First-of-its-kind barrier</p>	A.3.3.	<p>The crediting period of the CPA is 10 year started 01/01/2014 while the crediting period of PoA is 28 years started 05/04/2012. Thus the that the crediting period of the CPA will not exceed the end of the PoA.</p> <p>Crediting period changed from renewable to fixed crediting period for 10 years. A declaration from CME also being provided regarding change of crediting period.</p>	<p>A declaration from CME dated 09/03/2012 provided for validation which confirms that crediting period changes from 7 year renewable period to fixed crediting period of 10 years which is in line with UNFCCC guidelines as FOIK barrier has been opted for demonstration of additionality.</p> <p>CL Closed</p>
<p>CL 2: The project participant is requested to explain how the CPA meets the last eligibility criterion as identified by the CME: "A CME has checked that the CPA satisfies the eligibility criteria of the latest version of the PoA-DD".</p>	B.1.13.	Please refer to Table B.2-2 of rCPA-DD	<p>CPA 001 is eligible to the PoA because it complies with the eligibility criteria as defined in section A.4.2.2 of the CDM-PoA-DD which was confirmed with eligibility criteria assessment provided in CPA-DD.</p> <p>CL Closed</p>
<p>CL 3: The CME is required to clarify the scope of the annual test verifications.</p>	B.10.5.	The phrase "annual test verifications" was changed to "annual audit"	<p>Necessary corrections confirmed with revised CPA-DD</p> <p>CL Closed</p>
<p>CL 4:</p>	B.4.2	In web hosted CPA-DD, degradation factor was not taken	Electricity generation value corrected in revised CPA-DD

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

<p>Please justify the calculation of electricity generation from CPA001 and provide references and supporting documents .</p>		<p>into account for calculation of electricity generation which has been corrected in revised CPA-DD being provided to DoE.</p> <p>Electricity generation calculation based on following documents:</p> <ul style="list-style-type: none">• GL Garrard Hassan load factor, year 0 explanatory statement tender (applicable to year 0)• Schedule 1 Part 1, solar PPA Appendix K2 (applicable to year 1-10)	<p>which is based on :</p> <ul style="list-style-type: none">• GL Garrard Hassan load factor, year 0 explanatory statement tender (applicable to year 0)• Schedule 1 Part 1, solar PPA Appendix K2 (applicable to year 1-10) <p>The above documents are in compliance with PLF guidelines, EB 48, Annex. 11</p> <p>CL Closed</p>
---	--	--	---

VALIDATION REPORT

CDM VALIDATION REPORT NO CCL0026/SAGCSP/02042012

APPENDIX B

CERTIFICATE OF COMPETENCE

