




**Validation report form for renewal of CDM programme of activities period  
(Version 02.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the programme of activities (PoA)</b>	Small-scale solar electrical programme, South Africa UNFCCC reference number: 7484
<b>Number and duration of the next period</b>	Number: Second renewal period Duration: 26/11/2019 to 25/11/2026 (including both the days)
<b>Version number of the validation report</b>	05
<b>Completion date of the validation report</b>	25/09/2020
<b>Version number of PoA-DD to which this report applies</b>	12
<b>Coordinating/managing entity (CME)</b>	Blue World Carbon Asset Management (Pty) Ltd
<b>Host Parties</b>	Republic of South Africa
<b>Applied methodologies and standardized baselines</b>	Methodology 1: AMS-I.F.: Renewable electricity generation for captive use and mini-grid, version 3.0 Methodology 2: AMS-I.D.: Grid connected renewable electricity generation, version 18.0 Standardized baseline: ASB0040-2018: Grid emission factor for the Southern African power pool, version 1.0
<b>Mandatory sectoral scopes</b>	1
<b>Conditional sectoral scopes, if applicable</b>	Not applicable
<b>Estimated amount of annual average GHG emission reductions or GHG removals by sinks in the next programme of activities period</b>	Not applicable
<b>Name and UNFCCC reference number of the DOE</b>	E-0052: Carbon Check (India) Private Ltd.
<b>Name, position and signature of the approver of the validation report</b>	Amit Anand, CEO 

**SECTION A. Executive summary**

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The CME, Blue World Carbon Asset Management (Pty) Ltd, has appointed the DOE, Carbon Check (India) Private Ltd., (CCIPL) to perform the validation of the renewal of crediting period to the CDM Programme of Activities (PoA) "Small-scale solar electrical programme, South Africa".

The term "UNFCCC criteria" refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board. The independent Validation by the DOE is required on the PoA-DD /01/ to confirm the validation of the Renewal of the PoA period. This report summarises the Renewal of crediting period of the PoA with respect to requirements of CDM VVS for PoAs (version 02.0) /B01-1/. This report contains the findings and resolutions from the validation and a validation opinion.

**Scope:**

The scope of the validation is defined as an independent and objective review of the revised PoA-DD, the baseline, monitoring plan and other relevant documents. The information in these documents is reviewed against the CDM VVS for PoAs (version 02) /B01-1/, CDM PCP for PoAs (version 02) /B01-3/ and CDM PS for PoAs (version 02) /B01-2/

The report is based on the assessment of the PoA-DD, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and CDM decisions.

**Purpose, general description and location:**

The Purpose of this programme is to increase the use of renewable energy by domestic consumers and private companies of the RSA. A typical CPA under this PoA is either:

Type 1: The group of the independent activities under the predetermined province of the RSA, each of which is no larger than 0.15 MW installed capacity. Activities will be added ex post during the crediting period of the corresponding CPA (actual independent activities may not be known before the registration of the CPA under the PoA); or

Type 2: The identified independent activity or a group of identified independent activities of any capacity which taken together do not exceed 15 MW. The activities will be included in the corresponding CPA ex ante (actual independent activities will be known before the registration of the CPA under the PoA).

**Validation methodology and process**

The validation has been performed as described in the CDM VVS for PoAs (version 02.0) /B01-1/ and constitutes the following steps:

- Review of the registered PoA-DD /B02/
- Review of the revised PoA-DD /01/
- Desk review of relevant documents;
- Interview with representatives of the CME

**Conclusion:**

The review of the PoA-DD /01/ and the subsequent follow-up interviews have provided Carbon Check with sufficient evidence to determine the programme of activity fulfilment of all the stated criteria. In our opinion, the CDM programme of activity meets all applicable UNFCCC requirements for the CDM for renewal of the PoA period.

**SECTION B. Validation team, technical reviewer and approver****B.1. Validation team member**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Document review	On-site inspection	Interviews	Validation findings
1.	Team Leader / Validator / Technical Expert	IR	Singh	Vikash Kumar	CC IPL	X	NA	X	X

**B.2. Technical reviewer and approver of the validation report for renewal of PoA period**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Anand	Amit	CC IPL
2.	Approver	IR	Anand	Amit	CC IPL

**SECTION C. Means of validation****C.1. Desk/document review**

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The validation was performed primarily based on the review of the revised PoA-DD /01/ and the supporting documentation. Documents reviewed or referenced during the validation are listed in Appendix 3 below.

**C.2. On-site inspection**

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No on-site visit was conducted. Validation team has checked the site visit requirements mentioned in the CDM VVS for PoAs, version 02 /B01-1/ and concluded to not conduct a site visit for the validation. Desk review of the submitted revised PoA-DD /01-1/ and supportive evidences was done by the validation team. Validation team conducted remote interviews with the CME representatives on different topics as mentioned in section C.3 below. Also there is no pre-project information that is relevant to the requirements for renewal of the PoA period and may not be traceable after the renewal.

Duration of on-site inspection: DD/MM/YYYY to DD/MM/YYYY				
No.	Activity performed on-site	Site location	Date	Team member
1.	-	-	-	-

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			

1.	Goryashin	Ilya	Blue World Carbon Asset Management (Pty) Ltd	08/04/2020 (skype)	Discussion on the revised PoA-DD	Vikash Kumar Singh
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#### C.4. Sampling approach

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Not applicable

#### C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Area of validation findings	No. of CL	No. of CAR	No. of FAR
<b>Programme of activities</b>	-	--	-
Compliance with PoA-DD form	-	-	-
Programme of activities period	-	--	-
Coordinating/managing entity and the project participants	-	-	-
Post-registration changes	-	-	-
<b>Generic component project activities</b>	-	-	-
Application and selection of methodologies and standardized baselines	--	CAR-01	-
Validity of original baseline or its update	-	-	-
Estimated emission reductions or net anthropogenic removals	-	-	-
Validity of monitoring plan	-	-	-
Eligibility criteria for inclusion of CPAs	-	CAR-01	-
Others (please specify)	-	-	-
<b>Total</b>	00	01	00

### SECTION D. Validation findings

#### D.1. Programme of activities

##### D.1.1. Compliance with PoA-DD form

<b>Means of validation</b>	DR
<b>Findings</b>	--.
<b>Conclusion</b>	<p>CCIPL confirms the following:</p> <ul style="list-style-type: none"> <li>The compliance of the revised PoA-DD /01/ with the valid version of the applicable PoA-DD form including the instructions for completion of the form. This complies to the requirement of § 381 of VVS for PoAs (version 02.0) /B01-1/.</li> <li>CME has used the latest version of the PoA-DD form and assessment team confirms that the information transferred to the latest version of the PoA-DD /01/ is materially the same as that in the latest revised and approved PoA-DD /B02/. This complies to the requirement of § 381 of VVS for PoAs (version 02.0) /B01-1/.</li> </ul> <p>The validation team confirms that the requirements of the CDM-PoA-DD FORM /B04/ filling guidelines and VVS for PoAs (version 02.0) /B01-1/ have been appropriately met.</p>

##### D.1.2. Programme of activities period

<b>Means of validation</b>	DR
<b>Findings</b>	--
<b>Conclusion</b>	As verified /, the start date of 2 <sup>nd</sup> PoA period proposed for this PoA is 26/11/2019 with the length of 7 years i.e. from 26/11/2019 to 25/11/2026. The 2 <sup>nd</sup> PoA period commences on the day immediately after the expiration of the 1 <sup>st</sup> PoA period and hence is in compliance with para 390 (a) (v) of VVS for PoAs, version 02 /B01-1/.

**D.1.3. Coordinating/managing entity and the project participants**

<b>Means of validation</b>	DR, I
<b>Findings</b>	-
<b>Conclusion</b>	As per the updated PoA-DD /01/, the coordinating/managing entity of the PoA is Blue World Carbon Asset Management (Pty) Ltd. .

**D.1.4. Post-registration changes**

Type of post-registration changes (PRCs)	Confirmation (Y/N)	Validation report for PRCs	
		Version	Completion date
Corrections	NA	NA	NA
Inclusion of monitoring plan	NA	NA	NA
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	NA	NA	NA
Changes to the programme design	NA	NA	NA
Addition of CPA inclusion template	NA	NA	NA
Changes specific to afforestation and reforestation activities	NA	NA	NA
Change of coordinating/managing entity	NA	NA	NA

**D.2. Generic component project activities****D.2.1. Application and selection of methodologies and standardized baselines**

<b>Means of validation</b>	DR, I
<b>Findings</b>	CAR - 01 has been raised and closed successfully. Please refer to Appendix 4 for further details.
<b>Conclusion</b>	<p>Following baseline and monitoring methodologies and standardized baseline have been applied in the revised PoA DD:</p> <ul style="list-style-type: none"> <li>• AMS-I.F.: “Renewable electricity generation for captive use and mini-grid” (Version 03);</li> <li>• AMS-I.D: “Grid connected renewable electricity generation” (Version 18)</li> <li>• ASB0040-2018: Grid emission factor for the Southern African power pool: version 01.0</li> </ul> <p>The applicability of AMS-I.F (version 03.0) is assessed below:</p>

	Applicability criterion	Applicability	CME justification	DOE assessment
	<p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to user(s). The project activity will displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit i.e. in the absence of the project activity, the users would have been supplied electricity from one or more sources listed below:</p> <ul style="list-style-type: none"> <li>a) A national or a regional grid (grid hereafter);</li> <li>b) Fossil fuel fired captive power plant;</li> <li>c) A carbon intensive mini-grid.</li> </ul>	Applicable	<p>Each CPA comprises renewable electricity generation, by means of solar electrical systems. Furthermore, electricity will be supplied to users which would have been supplied electricity from the national grid of the RSA.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>
	<p>Illustration of respective situations under which each of the methodology (AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 3<sup>1</sup>.</p>	Applicable	<p>Each activity which envisages supplying produced electricity to an identified consumer (end user) or the group of consumers, which would have been supplied with electricity from the national grid of the RSA in the absence of the activity, furthermore excess electricity may be supplied to the grid; falls under methodology AMS-I.F. since it displaces grid electricity consumption at the end user.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>
	<p>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none"> <li>• The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</li> <li>• The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project</li> </ul>	Not applicable	<p>Any CPA is not the installation of a hydro power plant, so it does not need to satisfy this applicability condition.</p>	N/A

	<p>emissions section, is greater than 4 W/m<sup>2</sup>;</p> <ul style="list-style-type: none"> <li>The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.</li> </ul>			
	<p>This methodology is applicable for project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition, (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).</p>	Applicable	<p>Each independent activity under the PoA envisages either: (a) Installing a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity; or (b) Involves a capacity addition.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>
	<p>In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</p>	Applicable	<p>In case the independent activity involves the capacity addition, the added capacity will be lower than 15 MW according the eligibility criteria (5) and be physically distinct from the existing units.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>
	<p>In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.</p>	Not applicable	<p>Each independent activity under the PoA does not involve retrofit or replacement of an existing facility, so it does not need to satisfy this applicability condition.</p>	N/A
	<p>If the unit added has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	Not applicable	<p>Any CPA does not have non-renewable components, so it does not need to satisfy this applicability condition.</p>	N/A
	<p>Combined heat and power (co-generation) systems are not eligible under this category.</p>	Not applicable	<p>Any CPA does not involve co-generation. According to the AMS-I.F., the CPA must not satisfy this applicability condition.</p>	N/A

<sup>1</sup> AMS-I.F. (version 03), page 11

	<p>If electricity and/or steam/heat produced by the project activity is delivered to a third party i.e. another facility or facilities within the project boundary, a contract between the supplier and consumer(s) of the energy will have to be entered that ensures that there is no double counting of emission reductions.</p>	Applicable	<p>In case electricity produced by the independent activity under the CPA is delivered to a third party a contract between the supplier and consumer(s) of the energy will be signed. See eligibility criterion (2).</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>											
	<p>In case biomass is sourced from dedicated plantations, the applicability criteria in the tool “Project emissions from cultivation of biomass” shall apply.</p>	Not applicable	<p>Any CPA does not involve using biomass, so it does not need to satisfy this applicability condition.</p>	N/A											
	<p>The applicability of AMS-I.D (version 18.0) is assessed below:</p> <table border="1"> <thead> <tr> <th>Applicability criterion</th> <th>Applicability</th> <th>CME justifications</th> <th>DOE assessment</th> </tr> </thead> <tbody> <tr> <td> <p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <ul style="list-style-type: none"> <li>a) Supplying electricity to a national or a regional grid; or</li> <li>b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</li> </ul> </td> <td>Applicable</td> <td> <p>Each CPA comprises renewable electricity generation, by means of solar electrical systems. Furthermore electricity will be supplied to the national electricity grid of the RSA.</p> </td> <td> <p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p> </td> </tr> <tr> <td> <p>Illustration of respective situations under which each of the methodology (i.e. “AMS-I.D.: Grid connected renewable electricity generation”, “AMS-I.F.: Renewable electricity generation for captive use and mini-grid” and “AMS-I.A.: Electricity generation by the user) applies is included in the appendix <sup>2</sup>.</p> </td> <td>Applicable</td> <td> <p>Each activity which envisages produced electricity to be supplied to the national electricity grid of the RSA, falls under methodology AMS-I.D. since it supplies electricity to the national grid.</p> </td> <td> <p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p> </td> </tr> </tbody> </table>				Applicability criterion	Applicability	CME justifications	DOE assessment	<p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <ul style="list-style-type: none"> <li>a) Supplying electricity to a national or a regional grid; or</li> <li>b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</li> </ul>	Applicable	<p>Each CPA comprises renewable electricity generation, by means of solar electrical systems. Furthermore electricity will be supplied to the national electricity grid of the RSA.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>	<p>Illustration of respective situations under which each of the methodology (i.e. “AMS-I.D.: Grid connected renewable electricity generation”, “AMS-I.F.: Renewable electricity generation for captive use and mini-grid” and “AMS-I.A.: Electricity generation by the user) applies is included in the appendix <sup>2</sup>.</p>	Applicable	<p>Each activity which envisages produced electricity to be supplied to the national electricity grid of the RSA, falls under methodology AMS-I.D. since it supplies electricity to the national grid.</p>
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<p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <ul style="list-style-type: none"> <li>a) Supplying electricity to a national or a regional grid; or</li> <li>b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</li> </ul>	Applicable	<p>Each CPA comprises renewable electricity generation, by means of solar electrical systems. Furthermore electricity will be supplied to the national electricity grid of the RSA.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>												
<p>Illustration of respective situations under which each of the methodology (i.e. “AMS-I.D.: Grid connected renewable electricity generation”, “AMS-I.F.: Renewable electricity generation for captive use and mini-grid” and “AMS-I.A.: Electricity generation by the user) applies is included in the appendix <sup>2</sup>.</p>	Applicable	<p>Each activity which envisages produced electricity to be supplied to the national electricity grid of the RSA, falls under methodology AMS-I.D. since it supplies electricity to the national grid.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>												

<sup>2</sup> AMS-I.D. (version 18), page 17



	<p>This methodology is applicable for project activities that: (a) Install a Greenfield plant; (b) Involve a capacity addition in (an) existing plant(s), (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s)/units(s); or (e) Involve a replacement of (an) existing plant(s).</p>	Applicable	<p>Each independent activity under the PoA envisages either: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity; or (b) Involve a capacity addition.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>
	<p>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none"> <li>• The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</li> <li>• The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>;</li> <li>• The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.</li> </ul>	Not applicable	<p>Any CPA is not the installation of a hydro power plant, so it does not need to satisfy this applicability condition.</p>	N/A
	<p>If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	Not applicable	<p>Any CPA does not have non-renewable components, so it does not need to satisfy this applicability condition.</p>	N/A
	<p>Combined heat and power (co-generation) systems are not eligible under this category.</p>	Not applicable	<p>Any CPA does not involve co-generation. According to the AMS-I.D., the CPA must not satisfy this applicability condition.</p>	N/A

	<p>In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</p>	Applicable	<p>In case the independent activity involves the capacity addition, the added capacity will be lower than 15 MW according the eligibility criteria (5) and be physically distinct from the existing units.</p>	<p>Validation team based on review of the revised PoA DD /01/ and applied methodology confirms that generic CPAs of the PoA meets this applicability criteria.</p>							
	<p>In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement power plant/unit shall not exceed the limit of 15 MW.</p>	Not applicable	<p>Each independent activity under the PoA does not involve retrofit or replacement of an existing facility, so it does not need to satisfy this applicability condition.</p>	N/A							
	<p>In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid then the baseline for the electricity component shall be in accordance with procedure prescribed under this methodology. If the recovered methane is used for heat generation or cogeneration other applicable Type-I methodologies such as "AMS-I.C.: Thermal energy production with or without electricity" shall be explored.</p>	Not applicable	<p>Landfill gas, waste gas, wastewater treatment and agro-industries projects are not eligible under this PoA, so it does not need to satisfy this applicability condition.</p>	N/A							
	<p>In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply</p>	Not applicable	<p>Biomass projects are not eligible under this PoA, so it does not need to satisfy this applicability condition.</p>	N/A							
	<p>In the revised PoA-DD /01/, the CME has updated the Standardized baseline: ASB0040-2018: Grid emission factor for the Southern African power pool (version 01.0)</p> <p>The applicability of the standardized baseline is assessed below:</p>										
	<table border="1"> <thead> <tr> <th>Sl. No.</th> <th>ASB0040-2018: Grid emission factor for the Southern African power pool (Version 01.0)</th> <th>CME justification</th> <th>DOE assessment</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sl. No.	ASB0040-2018: Grid emission factor for the Southern African power pool (Version 01.0)	CME justification	DOE assessment						
Sl. No.	ASB0040-2018: Grid emission factor for the Southern African power pool (Version 01.0)	CME justification	DOE assessment								

	1	<p>a) The project activity is implemented in any one of following countries, which are the SAPP member countries, and is connected to the SAPP:</p> <p>(i) Republic of Botswana; (ii) Democratic Republic of Congo; (iii) Kingdom of Lesotho; (iv) Republic of Mozambique; (v) Republic of Namibia; (vi) Republic of South Africa; (vii) Kingdom of Swaziland; (viii) Republic of Zambia, and (ix) Republic of Zimbabwe</p>	<p>All activities under the CPA are located in the RSA as per Eligibility Criterion 1 and is connected to the grid as per Eligibility Criterion 3</p>	<p>The Validation team has reviewed the included CPA 7484-P1-0001-CP1 under this PoA and confirm that this is located within the geographical boundaries of the RSA</p>
	2	<p>3 (b) The CDM approved methodology that is applied to the project activity requires the determination of CO<sub>2</sub> emission factor(s) through the application of the grid tool</p>	<p>AMS-I.F. refers to procedures provided in AMS-I.D. to calculate the grid emission factor (paragraph 19). AMS-I.D. refers to Tool to calculate the emission factor for an electricity system to calculate the grid emission factors (paragraph 22).</p>	<p>Review of Section I.6.1 of PoA DD reveals that CME has followed AMS-I.D. which refers Tool to calculate the emission factor for an electricity system to calculate the grid emission factors and calculated the Combined margin CO<sub>2</sub> emission factor for the grid connected power generation in year y. Thus, validation team confirms project complies with the same.</p>
	3	<p>3 (c) The project activity uses the ex-ante options for both the operating margin and build margin grid emissions factors, as described in the grid tool, and therefore no monitoring or recalculation of the emission factor during the crediting period is required.</p>	<p>The ex-ante options for both the operating margin and build margin grid emissions factors are used.</p>	<p>Review of Section I.6.1 of PoA DD reveals that CME has taken ex-ante options for both the operating margin and build margin grid emissions factors according to the procedures prescribed in the "Tool to calculate the Emission Factor for an electricity system. Thus, validation team confirms project complies with the same.</p>
	4	<p>The latest approved and valid values of this standardized baseline are the only values of the CO<sub>2</sub> emission factor(s) that shall be applied for the project electricity system in the SAPP member countries listed under sub-para 3(a) above</p>	<p>The Standardized Baseline is valid till 06/10/2021 (later that the completion date of the PoA-DD).</p>	<p>Review of revised PoA DD reveals that CME has used latest approved and valid values of this standardized baseline are the only values of the CO<sub>2</sub> emission factor latest approved and valid values of this standardized baseline are the only values of the CO<sub>2</sub> emission factor.</p>
<p>The PoA/Generic CPA part of the PoA-DD, fulfills all relevant criteria of the applied baseline and monitoring methodology AMS-I.D (version 18.0), AMS-I.F (version 03.0) and Standardized baseline: ASB0040-2018: Grid emission factor for the Southern African power pool (version 01.0) /B03/. CME has used the valid version of the applied methodology and Standarized baseline. However, the applicability</p>				

	criteria will again be demonstrated at the CPA level where the actual project implementation takes place. Hence the selected version of the standardized baseline is appropriate for this PoA/Generic CPA part of the PoA-DD.
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**D.2.2. Validity of original baseline or its update**

<b>Means of validation</b>	DR, I							
<b>Findings</b>	-							
<b>Conclusion</b>	<p>In accordance to paragraph 382 of CDM VVS for PoAs, version 02.0 /B01-1, <i>The DOE shall assess the validity of the original baseline or its update through an assessment of the following issues:</i></p> <p><i>(a) The impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant guidance from the Board with regard to renewal of PoA period of a registered CDM PoA at the time of requesting the renewal of the PoA period;</i></p> <p><i>(b) The correctness of the application of the approved methodologies and, where applicable, the approved standardized baselines and the other methodological regulatory documents for the determination of the continued validity of the baseline or its update, and the estimation of GHG emission reductions or net anthropogenic GHG removals for the applicable PoA period.</i></p> <p>Furthermore, as per paragraph 383 of CDM VVS for PoAs, version 02.0 /B01-1/, the requirements contained in paragraph 382 (a) above shall not apply to a generic CPA using the valid version of an applicable approved standardized baseline that standardizes the baseline scenario, which is the case here since CME applies Standardized baseline: ASB0040-2018: Grid emission factor for the Southern African power pool (version 01.0) /B03/.</p> <p>In accordance to paragraph 382 (b) of CDM VVS for PoAs, version 02.0 /B01-1/, the validation team reviewed the revised PoA-DD /01/ to assess the correctness of the application of the approved methodologies and the approved standardized baselines and the other methodological regulatory documents for the determination of the continued validity of the baseline and the estimation of GHG emission reductions or net anthropogenic GHG removals for the applicable PoA period. Furthermore, as per the project standard for PoA /B02/,</p> <p><i>“To demonstrate the validity of the original baseline or its update, the coordinating/managing entity is not required to re-assess the baseline scenario. Instead, the coordinating/managing entity shall assess the modalities to calculate GHG emission reductions or net anthropogenic GHG removals that would have resulted from that scenario. If data and parameters used for determining the original baseline, that were determined ex-ante and not monitored during the PoA period, are no longer valid, the coordinating/managing entity shall update such data and parameters in accordance with the “Methodological tool: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period”.”</i></p> <p>For the PoA under consideration, during the 1<sup>st</sup> PoA period, PoA was registered applying small scale methodology, AMS-I.F (version 02.0) and AMS-I.D (version 17.0). During the 2<sup>nd</sup> Renewal period, PoA has applied valid latest version of the applied methodologies and also applied Standardized baseline: ASB0040-2018: Grid emission factor for the Southern African power pool (version 01.0) /B03/. Validation team confirms that data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period are still valid except the ex-ante parameter which is updated in accordance with applied standardized baseline i.e. ASB0040-2018 (version 01.0) /B03/:</p> <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="width: 33%;">Ex-ante Parameter</th> <th style="width: 33%;">During 1<sup>st</sup> PoA Period</th> <th style="width: 33%;">During 2<sup>nd</sup> PoA Period</th> </tr> </thead> <tbody> <tr> <td>EF<sub>grid,CM</sub></td> <td>0.988</td> <td>0.9871</td> </tr> </tbody> </table>		Ex-ante Parameter	During 1 <sup>st</sup> PoA Period	During 2 <sup>nd</sup> PoA Period	EF <sub>grid,CM</sub>	0.988	0.9871
Ex-ante Parameter	During 1 <sup>st</sup> PoA Period	During 2 <sup>nd</sup> PoA Period						
EF <sub>grid,CM</sub>	0.988	0.9871						

	<p>Value for <math>EF_{grid,CM}</math> has been adopted from the latest version of the applied Standardized baseline, i.e. Grid emission factor for Southern African Power Pool (version 01.0) /B03/ and hence deemed acceptable.</p> <p>The validation team took cognizance of §287-292 of PS for PoAs, version 02 /B01-2/ and §382-383 of VVS for PoAs (version 02.0) /B01-1/.</p>
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### D.2.3. Estimated emission reductions or net anthropogenic removals

<b>Means of validation</b>	DR, I
<b>Findings</b>	-
<b>Conclusion</b>	<p>Validation team has checked the modalities for the calculation of the GHG emission reductions in the generic CPA part of the revised PoA-DD /01/ in accordance with the applied version of the methodology, i.e. AMS-I.F (version 3.0) and AMS-I.D (version 18.0) /B03/. The parameters and equations presented in the PoA-DD /01/ have been compared with the information and requirements presented in the methodology /B03/ and other applicable methodological tools.</p> <p>The validation team confirms that:</p> <ul style="list-style-type: none"> <li>• All assumptions and data used by the CME are listed in the generic CPA part of the PoA-DD, including their references and sources;</li> <li>• All documentation used by CME as the basis for assumptions and source of data are correctly quoted and interpreted in the PoA-DD;</li> <li>• All values used in the PoA-DD are considered reasonable in the context of the proposed PoA;</li> <li>• The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;</li> <li>• All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PoA-DD.</li> </ul> <p>The validation team took cognizance §390 (a) (iv) of VVS for PoAs, version 02.0 /B01-1/.</p>

### D.2.4. Validity of monitoring plan

<b>Means of validation</b>	DR, I																						
<b>Findings</b>	-																						
<b>Conclusion</b>	<p>The monitoring plan in the generic CPA part of the revised PoA-DD /01/, is in compliance with the applied methodology AMS-I.F (version 3.0) and AMS-I.D (version 18.0) /B03/. The project was originally registered applying small scale methodology AMS-I.F (version 2.0) and AMS-I.D (version 17.0). For the 2<sup>nd</sup> PoA period, valid version i.e. version 3.0 and 18.0 of the same methodology AMS-I.F and AMS-I.D have been applied and the monitoring plan of the same has been adopted. CME has adopted the following monitoring parameters in the revised PoA-DD as per the applied methodology, AMS-I.F (version 3.0) and AMS-I.D (version 18.0):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Parameter</th> <th style="width: 10%;">Data unit</th> <th style="width: 50%;">Description</th> <th style="width: 20%;">Monitoring Frequency</th> </tr> </thead> <tbody> <tr> <td><math>EG_{Solar\ systems, y}^a</math></td> <td>MWh</td> <td>Net quantity of electricity supplied to end users from all independent activities (solar electrical systems installed) under the CPA in year y</td> <td>Continuously</td> </tr> <tr> <td><math>EG_{Solar\ systems, y}^b</math></td> <td>MWh</td> <td>Net quantity of electricity supplied to the national grid of the RSA from all independent activities (solar electrical systems installed) under the CPA in year y</td> <td>Continuously</td> </tr> <tr> <td><math>P_{Solar\ system, y}^a</math></td> <td>MW</td> <td>Total capacity of all independent activities which supply electricity to end users under the CPA in year y</td> <td>Continuous monitoring, at least monthly recordings</td> </tr> <tr> <td><math>P_{Solar\ system, y}^b</math></td> <td>MW</td> <td>Total capacity of all independent activities which supply electricity to the national grid of the RSA under the CPA in year y</td> <td>Continuous monitoring, at least monthly recordings</td> </tr> </tbody> </table>			Parameter	Data unit	Description	Monitoring Frequency	$EG_{Solar\ systems, y}^a$	MWh	Net quantity of electricity supplied to end users from all independent activities (solar electrical systems installed) under the CPA in year y	Continuously	$EG_{Solar\ systems, y}^b$	MWh	Net quantity of electricity supplied to the national grid of the RSA from all independent activities (solar electrical systems installed) under the CPA in year y	Continuously	$P_{Solar\ system, y}^a$	MW	Total capacity of all independent activities which supply electricity to end users under the CPA in year y	Continuous monitoring, at least monthly recordings	$P_{Solar\ system, y}^b$	MW	Total capacity of all independent activities which supply electricity to the national grid of the RSA under the CPA in year y	Continuous monitoring, at least monthly recordings
Parameter	Data unit	Description	Monitoring Frequency																				
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$P_{Solar\ system, y}^b$	MW	Total capacity of all independent activities which supply electricity to the national grid of the RSA under the CPA in year y	Continuous monitoring, at least monthly recordings																				

	Validation team can confirm that the parameters to be determined ex-post have been presented correctly and according to requirements of the applied methodology AMS-I.F (version 03.0) and AMS-I.D (version 18.0) and that CME shall be able to monitor and report emission reductions ex-post.
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**D.2.5. Eligibility criteria for inclusion of CPAs**

<b>Means of validation</b>	DR, I				
<b>Findings</b>	CAR-01 had been raised and closed successfully. Please refer to Appendix 4 for further details.				
<b>Conclusion</b>	The CME has outlined clear and unambiguous eligibility criteria for the inclusion of future CPAs under the PoA in section K of the PoA-DD /01/. Validation team confirm that the eligibility criteria for inclusion of corresponding CPAs in the PoA are updated by the CME in accordance with the applicable validation requirements related to the renewal of programme of activities period in the CDM VVS for PoAs, (version 02.0) /B01-1/ and the applied methodology AMS-I.F (version 03.0) and AMS-I.D (version 18.0) /B03/.				
	<b>Sl. No.</b>	<b>Eligibility criterion - Category</b>	<b>Eligibility criterion - Required condition</b>	<b>Supporting evidence for inclusion</b>	<b>DOE Assessment</b>
	1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA	1. The CPA (type 1 and type 2) shall be located within the geographical boundaries of the RSA	1. For CPA Type 1: the signed form from the owner of activity to be included into the CPA providing the following information: Name, address, GPS coordinates (Management system, Table 6) and Power Purchase Agreement (if applicable) For CPA Type 2: the signed form from the owner of activity to be included into the CPA providing the following information: Name, address, GPS coordinates (Management system, Table 6) and Environmental Authorisation (EA) from the relevant Competent Authority (CA) of the RSA (if applicable) and Power Purchase Agreement (if applicable)	According to §124 (a), of the Project Standrad for PoA, version 2.0, the geographical boundary of each CPA, shall be consistent with the geographical boundary set in the PoA. The PoA boundary is set as RSA. Validation team based on review of PoA-DD /01/ confirms that the eligibility criterion is defined in accordance with the project standard.  Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.  The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.
2.	Conditions that avoid double counting of emission	2. For CPA Type 1: the seller of solar electrical	2. For CPA Type 1: the signed form from the owner of activity	Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs in line with §124 (b) of	

		<p>reductions like unique identifications of product and end-user locations (e.g. programme logo)</p>	<p>system (or nominated CER buyer or other nominated party) for each activity shall provide the signed Table 6 of the Management System of the PoA and agreement with the owner of activity where he shall contractually agree and sign the following before inclusion into the CPA:</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> <p>For CPA Type 2: the owner of each activity shall provide the signed Table 6 of the Management System of the PoA and agreement with CME where he shall contractually agree and sign the following before inclusion into the CPA:</p>	<p>to be included into the CPA as per Table 6 of the Management system and agreement with the seller (or nominated CER buyer or other nominated party). For CPA Type 2: the signed form from the owner of activity to be included into the CPA as per Table 6 of the Management system and agreement with the CME and declaration from BWC.</p>	<p>the Project Standard for PoA, version 2.0. Validation team based on review PoA-DD /02/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion– category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
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			<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. Moreover for CPA Type 2, BWC shall check the UNFCCC CDM project database to verify that each activity to be included in the proposed CPA, has not been previously submitted to the UNFCCC, before inclusion into the CPA, as well as provide a declaration for the same.</p>		
	<p>3.</p>	<p>The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications</p>	<p>3. Technology: Each activity to be included into the CPA (type 1 and type 2) shall only use solar PV systems. For CPA type 1: the installed capacity of each activity shall be equal or less than 0.15 MW. For CPA type 2: the installed capacity of the CPA shall be</p>	<p>3. Technology: For both CPA types: Technical specification from the seller of the electrical system/technology supplier. Services: for grid-connected systems (both CPA types): PPA with the relevant authority as per the host country; For captive users: signed Table 6 of the Management system of the PoA from the owner of the activity.</p>	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements and applicability conditions prescribed by the methodology, as well as §124 (d) including foot note 23 and 24 and 124 (f) of the Project Standard for PoA, version 2.0.</p> <p>All CPAs shall apply the technology/measure for AMS-I.D. or AMS-I.F. or combination of both. Validation team based on review of PoA-DD /02/ confirms that the eligibility criterion is defined in accordance with the project standard.</p>



			<p>equal or less than 15 MW.                  Services: Electricity generation.                  Measure for AMS-I.D. or AMS-I.F. or combination of both: GHG emission reduction due to displacement of grid electricity.                  Each activity under the CPA (type 1 and type 2) shall be connected to either:                  i) An identified consumer (end user) or group of consumers, which would have been supplied with electricity from the national grid of the RSA in the absence of the activity (where excess electricity may be supplied to the grid) or;                  ii) to the national grid of the RSA                  Furthermore the owner of each activity under the CPA connected to (i) and using methodology AMS-I.F. shall be connected to the grid before the activity implementation.</p>	<p>For identified consumer: signed Table 6 of the Management system of the PoA/contract (between seller and end user) from the owner of the activity.                  For identified consumer using AMS-I.F.: Electricity bill or proof of pre-paid electricity from the owner.                  Measure: For AMS-I.D.: GHG emission reduction due to the supply of electricity to the grid.                  For AMS-I.F.: GHG emission reduction due to the displacement of electricity which would have been generated in the grid and consumed by the user in absence of the Solar PV technology, as per a CPA of this PoA; excess electricity under this methodology would also be supplied to the grid.                  Hence, the measure would primarily remain the same in case of both the methodologies and usage of the combination of the above-mentioned methodologies in the same CPA under this PoA shall not result in any cross-effects. This combination is also allowed as explained in section I.3 of this PoA.</p>	<p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.                  The description in the PoA DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	4.	Conditions to check the start	4. The start date of the	4. Signed equipment	Validation team confirms that this eligibility criterion has

		<p>date of the CPA through documentary evidence</p>	<p>activity under CPA (type 1 and type 2) shall be after the date of start of global stakeholder process for the PoA (23/12/2011)</p>	<p>purchase contract with a seller of the solar electrical system/technology provider</p>	<p>been sufficiently set for all CPAs inline with the requirements §124 (e) of the Project Standatd for PoA, version 2.0. The start date of a CPA shall be on or after the PoA start date.</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criterion is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	<p>5.</p>	<p>Conditions that ensure compliance with applicability and other requirements of single or multiple methodology/ies applied by CPAs</p>	<p>5. Both CPA type 1 and type 2 shall meet the applicability conditions and other requirements of either AMS-I.D. (version 18) or AMS-I.F. (version 3.0) or combination of both methodologies.</p>	<p>5. For both CPA types: Technical specification from the seller of the electrical system/technology supplier and PPA with the relevant authority as per the host country (if applicable) and signed Table 6 of the Management system of the PoA from the owner of the activity. For identified consumer: signed Table 6 of the Management system of the PoA/contract (between seller and end user) from the owner of the activity. For identified consumer using AMS-I.F.: Electricity bill or proof of pre-paid electricity from the owner.</p>	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (f) and §124 (h) of the Project Standard for PoA, version 2.0.</p> <p>Both CPAs type 1 and type 2 shall meet the applicability conditions and other requirements of either AMS-I.D. (version 18) or AMS-I.F. (version 0) or combination of both methodologies.</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the</p>

				assessment of the inclusion of corresponding CPAs in the PoA.
	6.	The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality as specified in Section C above	<p>6. Each and every CPA to be included into this PoA has to employ the solar technologies as per eligibility criteria 3. This criterion also states that “Each activity under the CPA (type 1 and type 2) shall be connected to either:</p> <ul style="list-style-type: none"> <li>i. An identified consumer (end user) or group of consumers , which would have been supplied with electricity from the national grid of the RSA in the absence of the activity (where excess electricity may be supplied to the grid) or;</li> <li>ii. to the national grid of the RSA”</li> </ul>	<p>6.Technology/measure: For both CPA types: Technical specification from the seller of the electrical system/ technology supplier.</p> <p>Services: for grid-connected systems (both CPA types): PPA with the relevant authority as per the host country;</p> <p>For captive users: signed Table 6 of the Management system of the PoA from the owner of the activity and Electricity bill or proof of pre-paid electricity from the owner.</p> <p>For identified consumer: signed Table 6 of the Management system of the PoA/contract (between seller and end user) from the owner of the activity or Electricity bill or proof of pre-paid electricity from the owner.</p>
	7.	The PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental	7. For CPA (type 1 and type 2) environment al impact assessment shall be carried out in line with NEMA regulation	<p>7. For both CPA types: EIA or basic assessment along with environmental authorisation (if applicable).</p> <p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (i) of the Pojec Sandad for PoAs, vesion 2.0.</p> <p>All CPAs utilizing this generic CPA-DD shall apply EIA or basic assessment along with environmental authorisation (if applicable).</p>

		impact analysis			<p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	8.	Conditions to provide an affirmation that funding from Annex I party, if any, does not result in a diversion of official development assistance	8. No official Development Aid shall be involved or diverted as a result of activities under the CPA (type 1 and type 2).	8. For CPA type 1: The declaration from the seller or the owner of the solar electrical system. For CPA type 2: The declaration from the owner of the activity	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (j) of the Pojec Sandad for PoAs, vesion 2.0.</p> <p>All CPAs utilizing this generic CPA-DD shall comply that no official Development Aid shall be involved or diverted as a result of activities under the CPA (type 1 and type 2).</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	9.	8. For CPA type 1: The declaration from the seller or the owner of the solar	9. For both CPA types where applicable, target group (e.g. domestic/co	9. Since this requirement has particularly been reflected in eligibility criterion (3), no supplementary	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (k) of the Pojec Sandad for PoAs, vesion 2.0.</p>

		<p>electrical system. For CPA type 2: The declaration from the owner of the activity Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)</p>	<p>mmercial/ industrial, rural/urban, grid-connected/of f-grid) and distribution mechanisms (e.g. direct installation) shall be identified in accordance with applied methodology or methodologies i.e., either AMS-I.D. (version 18) or AMS-I.F. (version 03) or combination of both methodologies.</p>	<p>evidence required</p>	<p>All CPAs utilizing this generic CPA-DD shall comply the target group and distribution mechanism.</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	<p>10.</p>	<p>Where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys</p>	<p>10. For CPA (type 1 and type 2) sampling requirements shall be assessed and carried out in line with requirements of Annex 4 &amp; 5 of EB 69.</p>	<p>10. This PoA and CPA do not use the sampling method for monitoring, therefore no supplementary evidence is required.</p>	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (l) of the Pojec Sandad for PoAs, vesion 2.0.</p> <p>However, this PoA and CPA do not use the sampling method for monitoring, therefore no supplementary evidence is required.</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p>
	<p>11.</p>	<p>Where applicable, the conditions that ensure that CPA in aggregate meets the small-scale or micro-scale threshold criteria and remains within those thresholds throughout the crediting period of the CPA</p>	<p>11. For both CPA types where applicable, the conditions that ensure that CPA in aggregate meets the small-scale threshold criteria and remains within those thresholds throughout the crediting period of the</p>	<p>11. Since this requirement has particularly been reflected in eligibility criterion (3), no supplementary evidence required. In addition, the total capacity of all independent activities included into the CPA is monitored throughout the crediting period of the CPA.</p>	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (m) of the Pojec Sandad for PoAs, vesion 2.0.</p> <p>All CPAs utilizing this generic CPA-DD shall ensure that CPA in aggregate meets the small-scale threshold criteria and remains within those thresholds throughout the crediting period of the CPA shall be assessed.</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility</p>

			CPA shall be assessed.		<p>criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	12.	Where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories	<p>12. For CPA (type 1 and type 2) debundling checks shall be performed in line with TOOL20 Methodological tool: Assessment of debundling for small-scale project activities (Version 04.0).</p>	<p>12. For both CPA types: confirmation in CPA-DD that the SSC-CPA is not a debundled component of a large scale CPA or CDM project activity For CPA type 2: the declaration from the owner of the activity and the CME</p>	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (m) of the Pojec Sandad for PoAs, vesion 2.0.</p> <p>All CPAs utilizing this generic CPA-DD shall be performed in line with TOOL20 Methodological tool: Assessment of debundling for small-scale project activities (Version 04.0).</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
	13.	The conditions related to leakage for activities within a CPA	<p>13. For both CPA types leakage shall be assessed and carried out in accordance with applied methodology</p>	<p>13. For both CPA types: Signed equipment purchase contract with a seller of the solar electrical system or</p>	<p>Validation team confirms that this eligibility criterion has been sufficiently set for all CPAs inline with the requirements §124 (n) of the Pojec Sandad for PoAs, vesion 2.0.</p>

			<p>or methodologies i.e., either AMS-I.D. (version 18) or AMS-I.F. (version 03) or combination of both methodologies, as shown in Table I.2-1 and I.2-2 in the PoA-DD.</p>	<p>technology provider and signed Table 6 of the Management system of the PoA from the owner of the activity.</p>	<p>All CPAs utilizing this generic CPA-DD shall be assessed and carried out in accordance with applied methodology or methodologies i.e., either AMS-I.D. (version 18) or AMS-I.F. (version 03) or combination of both methodologies, as shown in Table I.2-1 and I.2-2 in the PoA-DD.</p> <p>Validation team based on review of PoA-DD /01/ confirms that the eligibility criteria is defined in accordance with the project standard.</p> <p>Furthermore, the eligibility criterion – category, including the conditions provide sufficient information for the corresponding CPAs.</p> <p>The description in the PoA-DD including the supporting evidence for inclusion provides information to meet the requirement and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.</p>
<p>Validation team confirm that the eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA. Furthermore, the validation team confirms that eligibility criteria for the inclusion of CPAs in the PoA have covered as per the requirements of §124 of PS for PoAs, version 02 /B01-1/.</p>					

**SECTION E. Internal quality control**

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The final validation report passed a technical review and quality review before being submitted to the project participant and UNFCCC Executive Board. A technical reviewer qualified in accordance with CCIPL’s qualification scheme for CDM validation and verification performed the technical review.

**SECTION F. Validation opinion**

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The CME, Blue World Carbon Asset Management (Pty) Ltd, has appointed the DOE, Carbon Check (India) Private Ltd., (CC IPL) to perform the validation of the Renewal of the PoA period for the PoA “Small-scale solar electrical programme, South Africa” /B02/.

The validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism, latest version of Validation and Verification Standard and related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The programme of activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change, as stated in the generic CPA-DD. In the opinion of the validation team, the programme of activity meets all relevant UNFCCC, CDM criteria and all relevant host country criteria.

The review of the PoA-DD /01/ and the subsequent follow-up interviews have provided validation team with sufficient evidence to determine the validity of the original baseline and/or its update through an assessment. The PoA-DD /01/ correctly applies the small scale methodology AMS-I.F. version 3.0, and AMS-I.D. version 18.0 /B03/. The monitoring arrangements described in the monitoring plan are feasible within the PoA-DD, and it is validation team's opinion that the CME/CPA Implementer are able to implement the monitoring plan.

During the course of validation one (01) CARs was identified on initially submitted revised PoA-DD /01/. All the CARs has been resolved by the CME.

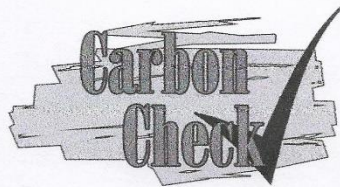
In summary, it is validation team's opinion that the CDM programme of activity "Small-scale solar electrical programme, South Africa" (UNFCCC Reference number 7484) meets all relevant UNFCCC requirements for the renewal of the PoA period. Hence CCIPL requests the renewal of CDM programme of activities period.



## Appendix 1. Abbreviations

Abbreviations	Full Texts
BE	Baseline Emission
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
CL	Clarification Request
CME	Co-ordinating or Managing Entity
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent
COP/MOP	Conference of Parties/ Meeting of Parties
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas
GWh	Giga Watt Hours
I	Interview
kW	Kilo Watt
kWh	Kilo Watt Hours
MoV	Means of Verification
MoC	Modalities of Communications
MW	Mega Watt
MWh	Mega Watt Hours
ODA	Official Development Assistance
OSV	On-Site Visit
PE	Project Emission
PoA	Programme of Activities
PoA-DD	Programme of Activities design document
PP	Project Participant
PS	Project Standard
t	Tonne
UNFCCC	United Nations Framework Convention on Climate Change
VT	Validation team
VVS	Validation and Verification Standard

## Appendix 2. Competence of team members and technical reviewers



### Carbon Check (India) Private Ltd.

#### Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 07.0):

For following functions:

Validator  Team Leader  Technical reviewer   
 Verifier  Technical Expert  Local Expert<sup>1</sup>

In the following Technical Areas:

TA 1.1  TA 3.1  TA 5.2  TA 9.2  TA 13.2   
 TA 1.2  TA 4.1  TA 8.1  TA 10.1  TA 14.1   
 TA 2.1  TA 5.1  TA 9.1  TA 13.1

Mr. Amit Anand  
CEO

Date of Approval  
24/12/2019

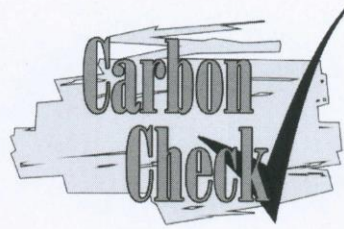
Valid Till  
23/12/2020

#### Revision History of the Document

26/12/2014	Initial Adoption
24/12/2015	Annual Revision
20/01/2016	Interim Revision for office address change
23/12/2016	Annual Revision
24/12/2017	Annual Revision
24/12/2018	Annual Revision
24/12/2019	Annual Revision

<sup>1</sup> India, South Africa

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 Regd. Off: 2071/38, 2<sup>nd</sup> Floor, Naiwala, Karol Bagh, New Delhi - 110005  
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**Carbon Check (India) Private Ltd.**

**Amit Anand**

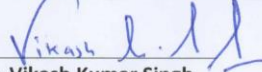
has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 07.0):

*For following functions:*

Validator  Team Leader  Technical reviewer   
 Verifier  Technical Expert  Local Expert<sup>1</sup>

*In the following Technical Areas:*

TA 1.1  TA 3.1  TA 5.2  TA 9.2  TA 13.2   
 TA 1.2  TA 4.1  TA 8.1  TA 10.1  TA 14.1   
 TA 2.1  TA 5.1  TA 9.1  TA 13.1

  
**Mr. Vikash Kumar Singh**  
 Compliance Officer

**Date of Approval**  
 24/12/2019

**Valid Till**  
 23/12/2020

**Revision History of the Document**

26/12/2014	Initial Adoption
24/12/2015	Annual Revision
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 e-mail: [info@carboncheck.co.in](mailto:info@carboncheck.co.in)

### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/01/	CME	<ol style="list-style-type: none"> <li>1. Initial PoA-DD</li> <li>2. interim revised PoA DD</li> <li>3. interim revised PoA DD</li> <li>4. interim revised PoA DD</li> <li>5. Final PoA DD</li> </ol>	Version 09.0 dated: 15/03/2020 Version 9.1 dated: 13/04/2020 Version 10 dated: 09/07/2020 Version 11 dated: 05/08/2020 Version 12 dated: 24/09/2020	CME
/B01/	UNFCCC	<ol style="list-style-type: none"> <li>1. CDM VVS for PoAs (Version 02.0).</li> <li>2. CDM PS for PoAs (Version 02.0)</li> <li>3. CDM PCP for PoAs (Version 02.0)</li> </ol>	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others
/B02/	UNFCCC	Registered PoA-DD, version 8, 12/11/2012 and the corresponding validation report for the PoA “Small-scale solar electrical programme, South Africa”, having UNFCCC Ref. No. 7484	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others
/B03/	UNFCCC	<ul style="list-style-type: none"> <li>• AMS-I.F. Renewable electricity generation for captive use and mini-grid (version 3.0)</li> <li>• AMS-I.D. Grid connected renewable electricity generation (version 18.0)</li> <li>• ASB0040-2018: Grid emission factor for the Southern African power pool (version 01.0)</li> </ul>	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others
/B04/	UNFCCC	Programme design document form for CDM programmes of activities (CDM-PoA-DD-FORM) (Version 09)	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others
/B05/	UNFCCC	Glossary of CDM Terms, version 10.0	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others
/B06/	UNFCCC	Methodological Tool 11: “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period”, version 03.0.1	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others
/B07/	UNFCCC	TOOL21- Methodological tool-Demonstration of additionality of small- scale project activities, Version 13.1  TOOL32- Methodological tool-Positive lists of technologies Version 02.0	<a href="http://cdm.unfccc.int/">http://cdm.unfccc.int/</a>	Others

## Appendix 4. Clarification requests, corrective action requests and forward action requests

**Table 1. CLs from this validation**

<b>CL ID</b>	XX	<b>Section no.</b>		<b>Date:</b>
<b>Description of CL</b>				
<b>CME's response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by CME</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

**Table 2. CARs from this validation**

<b>CAR ID</b>	01	<b>Section no.</b>	D.2.1 & D.2.5	<b>Date:</b> 10/04/2020
<b>Description of CAR</b>				
As per §285 of VVS for PoAs (version 02.0) /B01-1/:				
<p><i>“If the applied methodologies and/or standardized baselines have been updated to a later valid version of them, or changed to other methodologies or standardized baselines, the DOE shall confirm that the revised PoA-DD meets all requirements of the updated/changed methodologies, including the standards, methodological tools and guidelines applied in accordance with the updated/changed methodologies, and/or the updated/changed standardized baselines.”</i></p> <p>Review of revised PoA DD reveals that PoA has not complied with the above requirements. The specific findings in the PoA DD as observed by the validation team are as below:</p> <ol style="list-style-type: none"> <li>1. CME has not mentioned the version of the methodology AMS-I.F. and AMS-I.D on front page of the revised PoA-DD.</li> <li>2. In section I.2 of the PoA DD, the requirement of version 01.0 of AMS.I.F, which is removed in the latest version is still exists</li> <li>3. In section B and I.3 of the PoA DD, a reference of obsolete standard related to PoA has been provided.</li> <li>4. Obsolete version of General Guidelines to SSC CDM methodologies has been referred and used in section I.7.3 of the PoA DD.</li> <li>5. Under section K of the PoA DD, eligibility criteria 11 and 12 refers and applies an obsolete CDM document. Furthermore, eligibility criteria 13 refers to the obsolete version of the applied methodology.</li> </ol> <p>Editorial finding: The term “generic” through-out the PoA DD has spelling mistake.</p>				
<b>CME's response</b>				<b>Date:</b> 07/05/2020
Please refer to the revised PoA-DD version 9.1. The CME has updated the PoA-DD accordingly				
<b>Documentation provided by CME</b>				
revised PoA-DD version 9.1				
<b>DOE assessment</b>				<b>Date:</b> 07/05/2020
<ol style="list-style-type: none"> <li>1. CME has provided the revised Track Change PoA-DD and version of methodology AMS-I.F. and AMS-I.D has been provided</li> <li>2. Section I.2 has been revised and the requirement of version 01.0 of AMS.I.F, has been removed</li> </ol>				

3. PoA Standard version has been updated in section B and I.3 in the revised PoA DD.  
 4. General Guidelines to SSC CDM methodologies version has been updated  
 5. CDM Requirements has been updated in eligibility criteria 11 and 12 under section K of the PoA DD, and applied methodology has been also updated in eligibility criteria 13.

The CAR is closed.

**Table 3. FARs from this validation**

FAR ID	xx	Section no.	Date:DD/MM/YYYY
<b>Description of FAR</b>			
-			
<b>CME's response</b>			Date:DD/MM/YYYY
-			
<b>Documentation provided by CME</b>			
-			
<b>DOE assessment</b>			Date:DD/MM/YYYY
-			

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### Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	31 May 2019	Revision to: <ul style="list-style-type: none"> <li>Ensure consistency with version 02.0 of the “CDM validation and verification standard for programmes of activities” (CDM-EB93-A08-STAN) and version 02.0 of the “CDM project cycle procedure for programmes of activities” (CDM-EB93-A09-PROC);</li> <li>Make editorial improvements.</li> </ul>
01.0	29 December 2017	Initial publication.

Decision Class: Regulatory  
 Document Type: Form  
 Business Function: Renewal of crediting period  
 Keywords: crediting period, programme of activities, validation report