




**Validation report form for  
CDM programme of activities  
(Version 03.0)**

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

**BASIC INFORMATION**

<b>Title of the programme of activities (PoA)</b>	Multi-country Renewable Energy Programme of Activities
<b>Version number of the validation report</b>	01
<b>Completion date of the validation report</b>	28/12/2020
<b>Version number of PoA-DD to which this validation report applies</b>	03
<b>Date when PoA-DD was uploaded for global stakeholder consultation</b>	02/08/2020
<b>Coordinating/managing entity (CME)</b>	ALLCOT AG
<b>Host Parties</b>	Colombia Chile
<b>Applied methodologies and standardized baselines</b>	<u>Methodologies:</u> AMS.I-D "Grid connected renewable electricity generation" (Version 18.0) AMS.I.F "Renewable electricity generation for captive use and mini-grid " (Version 3.0) ACM0002 Grid-connected electricity generation from renewable sources --- Version 20.0
<b>Mandatory sectoral scopes</b>	1: Energy industries (renewable - / non-renewable sources)
<b>Conditional sectoral scopes, if applicable</b>	N/A
<b>Name and UNFCCC reference number of the DOE</b>	Earthood Services Private Limited (ESPL) (ref E- 0066)
<b>Name, position and signature of the approver of the validation report</b>	 Dr. Kaviraj Singh Managing Director

## SECTION A. Executive summary

### Brief summary of the project activity

The Programme of Activities (PoA) consists in the implementation of Renewable power generation projects in Chile and Colombia. The projects will displace fossil-fuel based electricity generation in the countries.

### Scope of validation

ALLCOT AG have contracted Earthood Services Private Limited to conduct the validation of the PoA "Multi-country Renewable Energy Programme of Activities".

The scope of the validation is to establish that:

- the proposed PoA complies with the corresponding PoA-DD form;
- the proposed PoA complies with all eligibility criteria for its registration, in accordance with the applied methodologies and tools; and
- the proposed PoA complies with all relevant CDM rules and requirements.

### Validation process

The validation process involved the following:

- contract with ALLCOT AG for the scope of validation of PoA;
- desk review;
- issuance of validation findings;
- reporting, calculation checks, QA/QC and resolution of findings;
- issuance of draft validation report;
- independent technical review of the project documentation;
- issuance of the final validation report;
- submission of the request for registration, as appropriate.

### Conclusion

Earthood Services Private Limited has performed the validation of the PoA "Multi-country Renewable Energy Programme of Activities".

The validation team has confirmed that the PoA complies with all eligibility criteria for its registration in accordance with CDM rules and regulations and the application of the baseline methodologies (AMS.I-D - Version 18.0, AMS.I.F - Version 3.0 and ACM0002 Version 20.0). In addition, it was confirmed that the monitoring system of each generic CPA is feasible.

The validation team concluded that the proposed PoA complies with all relevant CDM procedures/standards/guidance, complies with the corresponding PoA-DD and with all eligibility criteria for the PoA registration. Therefore, the request for the registration of the PoA is being submitted in accordance with the CDM procedures.

## SECTION B. Validation team, technical reviewer and approver

### B.1. Validation team members

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			
						Desk/document review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader	OR	Sebben	Marcelo	Verifit	Y	N	Y	Y
2.	Local Expert	OR	Sebben	Marcelo	Verifit	Y	N	N	Y

3	Methodological Expert	OR	Sebben	Marcelo	Verifit	Y	N	Y	Y
4	Technical Expert	OR	Sebben	Marcelo	Verifit	Y	N	Y	Y

## B.2. Technical reviewer and approver of the validation report

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 and expert to TR	IR	Garg	Shreya	Central Office
2	Approver	IR	Singh	Kaviraj	Central Office

## SECTION C. Means of validation

### C.1. Desk/document review

A desk review was conducted by the validation team that included:

- a review of the data and information presented to assess its completeness;
- a review of the submitted programme of activities and corresponding generic CPA, the applied methodology including applicable tool(s) and, where applicable, the applied standardized baseline;
- a review of the eligibility criteria for validation of the CDM PoA.

A complete list of documents/evidences reviewed is included as Appendix 3.

### C.2. On-site inspection

Duration of on-site inspection:				
No.	Activity performed on-site	Site location	Date	Team member
-	-	-	-	-

The on site inspection was not conducted during this validation. As per VVS for PoA para 29.b) on-site inspection is one of the provided examples of auditing techniques and it is not set as mandatory. Moreover, in paragraph VVS for PoA para 106 it is stated (for validation of generic CPAs, i.e. during validation of PoA): *"The DOE shall confirm the description of defining project boundary based on documented evidence and, where conducted, by an on-site inspection."* It is also important to point out that there is no CPA being included at this stage.

Instead, the DOE used other standard auditing techniques for validation or verification, as referred to in sections 7.1.3.1 of the VVS-PoA as follows:

- Document review
- Interview with CME (ALLCOT AG)
- Cross checks between the information provided by interviewed personnel to ensure that no relevant information has been omitted
- Reference to available information relating to programme, projects or technologies similar to the proposed CDM PoA under validation
- Review, based on the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents and of the appropriateness of formulae.

The Validation team conducted the audit process using standard audit techniques as required by VVS for PoA, version 02.0 para 29. These audit techniques have been considered sufficient and credible by the validation team for the purpose of the present validation.

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Aramburu	Asier	ALLCOT AG	03/09/2020	Project participants, technical description of PoA, monitoring plan  Description of Generic CPAs, inclusion contract	Marcelo Sebben
2.	Hernandez	Encarna	ALLCOT AG	03/09/2020	DNA Contact Programme Design LoA	Marcelo Sebben
3	Cuadrat	Sergi	ALLCOT AG	03/09/2020	PoA Framework	Marcelo Sebben

**C.4. Sampling approach**

Not applicable as no sampling has been used during the validation.

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

Areas of validation of compliance	No. of CL	No. of CAR	No. of FAR
<b>Programme of activities</b>	-	-	-
Identification of programme type	-	-	-
Description of PoA	-	-	-
Management system	-	-	-
Demonstration of additionality of PoA	CL 01	-	-
Start date and duration of PoA	-	-	-
Environmental impacts	-	-	-
Socio-economic impacts	-	-	-
Local stakeholder consultation	-	-	-
Sustainable development co-benefits	-	-	-
Approval	-	-	-
Authorization	-	-	-
Modalities of communication	CL 02	-	-
Global stakeholder consultation	-	-	-
<b>Generic component project activities</b>	-	-	-
General description of generic CPA	-	CAR 01 CAR 02	-
Selection of methodologies and standardized baselines	-	-	-
<ul style="list-style-type: none"> <li>Deviation from methodologies and/or methodological tools</li> </ul>	-	-	-
<ul style="list-style-type: none"> <li>Clarification on applicability of methodology, tool and/or standardized baseline</li> </ul>	-	-	-
Application of methodologies and standardized baselines	-	-	-
<ul style="list-style-type: none"> <li>General</li> </ul>	CL 03	-	-
<ul style="list-style-type: none"> <li>Project boundary, sources and GHGs</li> </ul>	CL 04	-	-
<ul style="list-style-type: none"> <li>Baseline scenario</li> </ul>	CL 05	-	-
<ul style="list-style-type: none"> <li>Estimation of emission reductions or net anthropogenic removals</li> </ul>	CL 06	-	-

• Monitoring plan	-	-	-
Crediting period type and duration	-	-	-
Eligibility criteria for inclusion of CPAs	-	CAR 03	-
Others (please specify)	-	-	-
<b>Total</b>	<b>6</b>	<b>3</b>	<b>-</b>

## SECTION D. Validation findings

### D.1. Programme of activities

#### D.1.1. Identification of programme type

<b>Means of validation</b>	The validation team had access to the PoA-DD and as per interviews performed to the CME, it could be verified that the PoA will include large-scale, small-scale and micro-scale CPAs all non-A/R.
<b>Findings</b>	N/A
<b>Conclusion</b>	Only Large Scale, small-scale and micro-scale non-A/R CPAs will be included in this PoA

#### D.1.2. Description of PoA

<b>Means of validation</b>	<p>The Programme of Activities (PoA) consists in the implementation of large scales, small scales and micro scales renewable power generation projects in Colombia and Chile. The following project types are foreseen:</p> <ul style="list-style-type: none"> <li>- Generic CPA 1: Large Scale greenfield solar photovoltaic power plants grid-connected</li> <li>- Generic CPA 2: Large Scale greenfield solar photovoltaic power plants grid-connected applying simplified procedure for determining additionality (positive list as per TOOL32)</li> <li>- Generic CPA 3: Greenfield wind power plants grid-connected;</li> <li>- Generic CPA 4: Small-scale greenfield solar photovoltaic power plants grid-connected</li> <li>- Generic CPA 5: Small-scale greenfield hydro power plants grid-connected</li> <li>- Generic CPA 6: Micro-scale solar power plants</li> </ul> <p><b>a) Framework for the implementation of proposed PoA:</b></p> <p>The Programme of Activities (PoA) consists in the implementation of Renewable power generation projects in Chile and Colombia. The projects will displace fossil-fuel based electricity generation in the countries. The main reason for implementing the PoA is to support development of renewable energy projects by simplifying the CDM access to those projects that are economically or financially unattractive or that faces policy barriers for its implementation.</p> <p><b>b) The policy/measure or stated goal that the proposed PoA seeks to promote;</b></p> <p>According to the CME, this PoA aims to include renewable power generation in Colombia and Chile, ensuring energy security, diversification of the grid generation mix and sustainable growth of the electricity generation sector in the countries. This inclusion will be carried out through installation of greenfield plants grid-connected or connected to isolated-grids or directly to end users. Any private companies, governmental or semi-governmental agencies that meet the criteria mentioned in this PoA can participate as CPA implementer.</p> <p><b>c) Voluntary action</b></p> <p>According to the CME, the PoA is a voluntary action. This voluntary action was also stated in the LoAs provided by each country DNA. This PoA does not seek national or regional incentives for implementing the programme. Although there are legislation that promotes renewable energy in Chile<sup>/11/</sup> and in Colombia<sup>/12/</sup> they do</p>
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	<p>not oblige the implementation of the PoA or CPAs. There are no mandatory laws that require investment in renewable projects in Chile or Colombia.</p> <p><b>d) The contribution of the PoA to the sustainable development of the host Party</b></p> <p>The validation team checked the PoA description related to this topic, where the following contributions were referred:</p> <ul style="list-style-type: none"> <li>- Social well-being: the implementation will provide clean, renewable and affordable energy apart from possible employment increase in the local areas. Moreover, will increase the living and health conditions due the use of clean energy by households.</li> <li>- Economic well-being: the implementation will increase the economical activities from renewable power installation. Moreover, it will enable new business opportunities.</li> <li>- Environmental well-being: the implementation of renewable energy solutions will have positive impact in environment both locally and globally. The project will reduce the dependence on fossil fuels, which are non-renewable and limited in supply.</li> <li>- Technological transfer: the PoA implementation is a good possibility of technological transfer to the host countries.</li> </ul> <p>No public fundings are expected to be received by this activity.</p> <p>All the information above was observed in the PoA description and corroborate with interviews performed to the CME.</p> <p>The physical/geographical boundary of the PoA are Chilean territory and Colombian territory. The National and/or regional legislation of each country will be taken into consideration for all CPAs included in this PoA as applicable.</p> <p>It is also mentioned in the PoA-DD that the programme itself is a way of technology and know how transference to host country.</p>
<b>Findings</b>	N/A
<b>Conclusion</b>	The information presented in the PoA-DD was all evidenced through interviews, and review of applied legislation <sup>10/, 11/</sup> . The description in the PoA-DD is complete, accurate and in accordance with requirements of the project standard and with actual PoA structure. Moreover, it provides a good understanding of the PoA.

### D.1.3. Management system

<b>Means of validation</b>	<p>The management system was assessed in accordance with the applicable requirements in the VVS and the PoA Project Standard.</p> <p>The Validation team could observe that the management system is defined in PoA-DD where it includes:</p> <ul style="list-style-type: none"> <li>- a clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies</li> <li>- Records of arrangements for training and capacity development for personnel</li> <li>- A procedure for technical review of inclusion of CPAs</li> <li>- A procedure to avoid double counting</li> <li>- Records and documentation control process for each CPA under the PoA.</li> <li>- Measures for continuous improvements of the PoA management system</li> </ul> <p>The detailed description of the management system is defined in the PoA-DD section B.</p>
<b>Findings</b>	N/A
<b>Conclusion</b>	A feasible management system was set in order to enabling the CME to have full access to the monitoring of each specific CPA and provide traceable data to DOE and to ensure proper reporting and verification of emission reductions. Specific training will be provided by the CME to each specific CPA.

**D.1.4. Demonstration of additionality of PoA**

<b>Means of validation</b>	<p>The validation team has compared the PoA-DD with the applied CDM methodologies. The additionality of each CPA will be assessed by:</p> <ul style="list-style-type: none"> <li>- Generic CPA #1: additionality of large scale solar projects will be determined by procedures foreseen in the applied methodology ACM0002, section 5.3.2, by applying the stepwise approach of TOOL 01 "Tool for the demonstration and assessment of additionality".</li> <li>- Generic CPA #2: additionality of large scale solar projects will be determined by procedures foreseen in the applied methodology ACM0002, section 5.3.1, by applying the simplified procedure through TOOL32: Positive list of technologies".</li> <li>- Generic CPA #3: additionality of large scale wind projects will be determined by procedures foreseen in the applied methodology ACM0002, section 5.3.2, by applying the stepwise approach of TOOL 01 "Tool for the demonstration and assessment of additionality"</li> <li>- Generic CPA #4: the additionality of small-scale solar projects will be determined based on relevant requirements of Methodological TOOL21 "Demonstration of additionality of small-scale project activities"</li> <li>- Generic CPA #5: the additionality of small-scale hydro projects will be determined based on relevant requirements of Methodological TOOL21 "Demonstration of additionality of small-scale project activities"</li> <li>- Generic CPA #6: the additionality of micro-scale solar projects will be determined based on relevant requirements of Methodological TOOL19 "Demonstration of additionality of microscale project activities"</li> </ul> <p>Nevertheless, not all information provided was in accordance with applicable rules and requirements from methodological documents. Therefore a CL has been raised.</p>
<b>Findings</b>	<p>CL 01</p> <p>PoA-DD section C: CPA Category 4 and Category 5: it is stated that "Any project activity up to 5MW which employ renewable energy as their primary technology (...) that displace electricity from a grid or distribution system that is or would have been supplied by at least one fossil fuel fired generating unit is additional".: It is not clear whether this condition is in compliance with provisions from TOOL 19.</p>
<b>Conclusion</b>	<p>The PoA-DD follows the requirements of the PoA Project Standard in order to demonstrate that none of the CPAs to be implemented would occur in the case of the absence of the CDM PoA.</p> <p>The CME provided informations regarding the applicable legislation in each country<sup>/12/, /13/</sup> and it is concluded that there is no incentive for the implementation of the defined CPAs and therefore, no CPA would be implemented in the absence of PoA.</p> <p>The additionality will be demonstrated at CPA level for each specific case CPA as per requirements defined in the PoA-DD.</p> <p>The additionality of the PoA was assessed in accordance with applicable related validation requirements in the VVS and PoA project standard. The detailed additionality procedures for each generic CPA are duly determined in the Eligibility criteria of each generic CPA-DD and are assessed in the sections D.X.5 below for each generic CPA (X = 2, 3, 4, 5, 6 and 7)</p>

**D.1.5. Start date and duration of PoA**

<b>Means of validation</b>	<p>As per glossary of terms, "for a CDM PoA, the date on which the CME officially notifies the secretariat and the DNA(s) of the host Party(ies) of its intention to seek the CDM status, or the date of publication of the PoA-DD for global stakeholder consultation, whichever is earlier".</p> <p>The duration was determined as per PS requirements.</p>
<b>Findings</b>	N/A
<b>Conclusion</b>	<p>According to the UNFCCC website, the intentions to seek CDM status were notified to the secretariat and to both DNAs on 03/02/2020, which was prior than the publication of the PoA-DD for GSC. Therefore, it was considered the start date of the PoA. The PoA-DD correctly describes its start date.</p>

	The PoA will have duration of 28 years and zero months, which is also in accordance with PS for PoA.
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**D.1.6. Environmental impacts**

<b>Means of validation</b>	As per description in the PoA-DD, the Analysis of environmental impacts will be carried out at CPA level in accordance with each countries' rules on environmental licensing. The documents will be assessed at CPA Level.
<b>Findings</b>	N/A
<b>Conclusion</b>	The analysis of environmental impacts will be carried out at CPA level as required by each country's legislation.

**D.1.7. Socio-economic impacts**

<b>Means of validation</b>	Not applicable as it is not A/R CDM PoA.
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applicable as it is not A/R CDM PoA.

**D.1.8. Local stakeholder consultation**

<b>Means of validation</b>	The local stakeholder consultation will be conducted at CPA level, taking into consideration the differences and circumstances of each community where the CPA's will be included. In case Environmental Impact analysis is required for implementation of a CPA, formal stakeholder consultation will be carried out as part of the assessment process following rules on environmental authority for each country. The requirements of the LSC are well defined in the PoA-DD section F.
<b>Findings</b>	N/A
<b>Conclusion</b>	The local stakeholder consultation will be conducted at CPA level. The validation team attests that rules for LSC described in the PoA-DD section F are in accordance with requirements Project Standard for PoA.

**D.1.9. Sustainable development co-benefits**

<b>Means of validation</b>	Not applicable
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applicable as the CME does not intend to monitor sustainable development co-benefits.

**D.1.10. Approval**

<b>Means of validation</b>	The final validation report is a prerequisite for requesting the Letter of Approval from Chile and Colombia DNAs. The LoA will be presented and assessed after the end of validation process.
<b>Findings</b>	N/A
<b>Conclusion</b>	<p>Letters of approval from Chile and Colombia have been received by Validation team and they authorize the Programme to be carried out in both countries. The letters were issued in accordance with Project Standard for PoA paragraph 69 and 73.</p> <p>The LoA from Chile was received on 10/12/2020<sup>/15-1/</sup> issued by Chilean DNA. Although the LoA was provided by the CME, there is no doubts regarding the authenticity of the LoA. The LoA was signed and Stamped by DNA. The LoA confirms that:</p> <ul style="list-style-type: none"> <li>- The Party is a party to the Kyoto Protocol.</li> <li>- The participation in the CDM PoA is voluntary</li> <li>- Refers to the precise title of the proposed CDM PoA</li> <li>- The proposed CDM PoA assists the host Party in achieving sustainable development</li> </ul> <p>The Validation team confirms that the LoA is unconditional with respect to the requirements stated in the VVS for PoA, paragraph 69, as stated above.</p>

	<p>The validation team confirms that the LoA has been issued by the respective Party's DNA<sup>/18/</sup> and is valid for the proposed CDM PoA under validation in accordance with UNFCCC website<sup>/20/</sup>. There is no doubt regarding the authenticity of the LoA.</p> <p>The LoA from Colombia was received on 27/10/2020<sup>/15-2/</sup> issued by Colombian DNA. Although the LoA was provided by the CME, there is no doubts regarding the authenticity of the LoA. The LoA was signed and Stamped by DNA. The LoA confirms that:</p> <ul style="list-style-type: none"> <li>- The Party is a party to the Kyoto Protocol.</li> <li>- The participation in the CDM PoA is voluntary</li> <li>- Refers to the precise title of the proposed CDM PoA</li> <li>- The proposed CDM PoA assists the host Party in achieving sustainable development</li> </ul> <p>The Validation team confirms that the LoA is undonditional with respect to the requirements stated in the VVS for PoA, paragraph 69, as stated above.</p> <p>The validation team confirms that the LoA has been issued by the respective Party's DNA<sup>/18/</sup> and is valid for the proposed CDM PoA under validation in accordance with UNFCCC website<sup>/20/</sup>. There is no doubt regarding the authenticity of the LoA.</p>
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#### D.1.11. Authorization

<b>Means of validation</b>	<p>The authorizations were provided together with the letters of approval or in separate letters as follows.</p> <p>The LoA from Chilean DNA was received on 10/12/2020<sup>/15-1/</sup> confirming the following:</p> <ul style="list-style-type: none"> <li>- It authorizes ALLCOT AG to act as CME of the Programme:</li> </ul> <p>The LoA from from Colombian DNA was received on 27/10/2020<sup>/15-2/</sup> confirming the following:</p> <ul style="list-style-type: none"> <li>- It authorizes ALLCOT AG to act as CME of the Programme:</li> </ul> <p>Moreover, a separate authorization letter has been provided by Colombian DNA on 23/12/2020<sup>/15-3/</sup> confirming the following</p> <ul style="list-style-type: none"> <li>- It authorizes ALLCOT AG as Project Participant of the Programme</li> </ul>
<b>Findings</b>	-
<b>Conclusion</b>	<p>ALLCOT AG has been authorized by Colombian DNA to act as CME and Project participant of the PoA.</p> <p>Allcot AG has been authorized by Chilean DNA to act as CME of the PoA.</p> <p>Concluding, the CME (ALLCOT AG) to whom the DOE has contract agreement, is authorized to act as CME of this PoA by both LoAs. And Moreover, at least one party (Colombia) has authorized each project participant (ALLCOT AG is the only PP) to participate of the PoA.</p> <p>The validation team confirm that the CME was authorized by all host countries and the PP is authorized by at least one Party as required by Project Standard.</p> <p>The letter was issued in accordance with Project Standard for PoA paragraph 70 and 71.</p>

#### D.1.12. Modalities of communication

<b>Means of validation</b>	At the moment of site visit no Modalities of Communication form (MoC) has been provided to the validation team. Thus a CAR has been raised.
<b>Findings</b>	<p>CL 2</p> <p>Modalities of Communication (MoC) has not been provided to the validation team unlike required by PS for PoA para 75.</p>
<b>Conclusion</b>	<p>The CME provided to the validation team a MoC statement<sup>/14/</sup> with the following information.</p> <ul style="list-style-type: none"> <li>- The title of the proposed CDM PoA (and UNFCCC reference number if available);</li> </ul>

	<ul style="list-style-type: none"> <li>- (b) The date of submission of the MoC statement (to a DOE for inclusion in the request for registration or to the secretariat for changes after registration);</li> <li>- (c) The designation of a focal point for each scope of authority, contact details and specimen signatures of the authorized signatories of each focal point entity;</li> <li>- (d) A list of all project participants, contact details and specimen signatures of their authorized signatories;</li> <li>- (e) The signature of an authorized signatory of the coordinating/managing entity confirming its agreement with the MoC statement.</li> </ul> <p>The MoC statement was provided to the validation team and it is in accordance with the Project Standard requirements.</p> <p>The corporate identity of all project participants and CME as well as the personal identities, including specimen signatures and employment status, of their authorized signatories were validated through written confirmation from the coordinating/managing entity that submits the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate.</p> <p>The MoC has been received by CME. The official from CME is duly authorized to sign the written confirmation on behalf of the CME.</p> <p>The DOE could validate the requirements of the VVS para 82. The DOE has performed due diligence on the MoC statement in accordance with the requirements in VVS for PoA section 7.12.</p>
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### D.1.13. Global stakeholder consultation

<b>Means of validation</b>	The DOE made the PoA-DD public available for Global Stakeholder consultation on 02/08/2020. The period for comments was until 01/09/2020.
<b>Findings</b>	N/A
<b>Conclusion</b>	By means of UNFCCC's website check, it could be observed that no comments were received.

## D.2. Generic component project activities (CPA 01)

### D.2.1. General description of generic CPA

<b>Means of validation</b>	<p>The name and reference number of this generic CPA is "Large Scale Generic CPA 01 – CPA # 1".</p> <p>This generic CPA covers installation of Greenfield Solar Photovoltaic Plants in the Colombian or Chilean Territory which will have its electricity dispatched to the National Grid of each country. The Purpose of the generic CPA is provide renewable energy to the national grid of each country and reduce the share of fossil-fuel power plants in the electricity matrix.</p> <p>The plants will be solar photovoltaic type, grid-connected, and will have installed capacity between 15MW and 900 MW.</p> <p>The main equipments to be installed will be solar panels, inverters, transformers and electric meters. The exact facilities will be determined at each specific CPA. The capacity factor will vary from 15 to 40% <sup>/09/</sup> depending on the country and location which they will be installed. These values are standard in the market for this type of technology.</p> <p>The lifetime of main equipment will be at least 20 years, which will be checked against manufacturer's specification and industry standards<sup>/10/</sup>.</p> <p>Electricity meters installed at the grid interface will be responsible for measuring the electricity dispatched to the grid.</p> <p>The additionality of this generic CPA will be determined based on the General procedure for demonstration of additionality, outlined in the section 5.3.2 of the applied methodology, applying the TOOL01.</p> <p>However, the generic CPAs were not described in accordance with CDM rules and regulations. Moreover, not all required information was included in the PoA-DD, thus a the CARs below have been raised.</p>
<b>Findings</b>	<p>CAR 1</p> <p>CAR 2</p>

<b>Conclusion</b>	<p>It is being confirmed in the PoA-DD that the CPAs described under this generic CPA will be grid connected. The range of the age and average lifetime of main equipment were also mentioned and will be based on manufacturer's specification and industry standards for all CPA included.</p> <p>Information on specifications of range of installed capacities and load factors<sup>/09/</sup> in accordance with public available information for the installed locations and to be checked as per manufacturer's specifications for each specific case CPA was included as required by PS for PoA.</p> <p>All monitoring equipment to be applied in the CPAs are duly mentioned in the PoA-DD</p> <p>It can be concluded that the projects refer to greenfield solar power plants and therefore, no plants will have been placed prior the installation of each CPA in the specific location.</p> <p>Baseline scenario is being stated in the section as per applied methodology ACM 0002 as being:</p> <p><i>"electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in "TOOL07: Tool to calculate the emission factor for an electricity system".</i></p> <p>It is important to state that the information contained in this section is only estimative as they do not correspond to specific case CPAs. Specific information will be given in the CPA-DDs.</p> <p>The purpose and general description of generic CPA was outlined in the PoA-DD. The description is accurate, complete and provides an understanding of the Generic CPA and it is in accordance with requirements of applied methodology.</p>
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## D.2.2. Selection of methodologies and standardized baselines

### D.2.2.1. Deviation from methodologies and/or methodological tools

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no deviation from methodology is expected.

### D.2.2.2. Clarification on applicability of methodology, tool and/or standardized baseline

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no clarification on applicability of methodology to the proposed PoA has been issue.

## D.2.3. Application of methodologies and standardized baselines

### D.2.3.1. General

<b>Means of validation</b>	<p>This generic CPA consists in installation of Solar Photovoltaic greenfield power plants.</p> <p>The CPA applied the following large scale consolidated methodology:</p> <ul style="list-style-type: none"> <li>- ACM0002 - Grid-connected electricity generation from renewable sources version 20.0</li> </ul> <p>Moreover, the following tools are being applied:</p> <ul style="list-style-type: none"> <li>- TOOL01: Tool for the demonstration and assessment of additionality" (version 07.0.0)</li> <li>- TOOL07: Tool to calculate emission factor for an electricity system" (version 7.0)</li> </ul>
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All applicability conditions of the applied methodology and applied tools are met:

Applicability Criteria – ACM0002 – v. 20.0	Assessment
a) Install a Greenfield power plant; b) Involve a capacity addition to (an) existing plant(s); c) Involve a retrofit of (an) existing operating plants/units; d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or e) Involve a replacement of (an) existing plant(s)/unit(s).	The PA complies with the condition (a) as it was a greenfield power plant
The methodology is applicable under the following conditions: a) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit 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 expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.	The PA complies with the condition (a) as it is composed by solar power plant.
In case of hydro power plants, one of the following conditions shall apply: a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (3), is greater than 4 W/m <sup>2</sup> ; or c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (3), is greater than 4 W/m <sup>2</sup> ; or d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (3), is lower than or equal to 4 W/m <sup>2</sup> ,	Not applied for this PA as it corresponds to solar power plant

	<p>In the case of integrated hydro power projects, project proponent shall</p> <p>a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or:</p> <p>b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum five years prior to implementation of CDM project activity.</p>	<p>Not applicable, as the PA is not an integrated hydro power project</p>			
	<p>The methodology is not applicable to:</p> <p>a) 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>b) Biomass fired power plants/units.</p>	<p>Not applied for this PA as it corresponds to solar power plant</p>			
	<p>In the case of retrofits, rehabilitations, 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, that is 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>The PA is not a project with capacity addition, retrofit, replacement or rehabilitation.</p>			
	<p>The applicability conditions of all tools are also met as follows</p> <table border="1"> <thead> <tr> <th>Applicability Criteria – TOOL 01</th><th>Assessment</th></tr> </thead> <tbody> <tr> <td> <p>This tool provides for a step-wise approach to demonstrate and assess additionality.</p> </td><td> <p>This tool will be applied to demonstrate the additionality of the CPA as per requirements of section 5.3.2 of ACM0002.</p> </td></tr> </tbody> </table>		Applicability Criteria – TOOL 01	Assessment	<p>This tool provides for a step-wise approach to demonstrate and assess additionality.</p>
Applicability Criteria – TOOL 01	Assessment				
<p>This tool provides for a step-wise approach to demonstrate and assess additionality.</p>	<p>This tool will be applied to demonstrate the additionality of the CPA as per requirements of section 5.3.2 of ACM0002.</p>				

	Applicability Criteria – TOOL 07	Assessment
	This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This CPA refers to project activity that generates electricity that substitutes grid electricity. Therefore this tool is applicable to this CPA.
	Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants.	Only grid power plants will be included. Therefore, this condition is met.
	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country	The electricity system will not be located partially or totally in the Annex I country. Therefore, this condition is met.
	Under this tool, the value applied to the CO <sub>2</sub> emission factor of biofuels is zero	CO <sub>2</sub> emission factor for biofuels will be considered equal to zero. Therefore, this condition is met.
However not all applicability conditions of the methodologies and tools were mentioned in the PoA DD. Thus a CL has been raised.		
<b>Findings</b>	CL 03	
<b>Conclusion</b>	<p>The application of the methodology ACM0002 in the PoA is allowed by the CDM guidelines as well as the applied tools. No Standardized baselines will be applied. Therefore, this generic CPA is in accordance with CDM regulations. The CME has applied the latest version the methodology and tools informed above.</p> <p>The selected methodologies were correctly applied with respect to project boundary, baseline identification, algorithms and formulae used to determine emission reductions, additionality and monitoring methodology. The selected tools are correctly applied with respect to the determination of the Grid Emission Factor and additionality.</p>	

#### D.2.3.2. Project boundary, sources and GHGs

<b>Means of validation</b>	<p>The project boundary is Chile and/or Colombian Territories. It was assessed by means of interviews performed to the CME. Moreover, description of the project provided to the Countries' DNAs and the Letters of Approval issued by each DNA corroborates the information. The location of CPAs will be checked through Technical Feasibility Study of the power plant.</p> <p>As the project consists in installation of PV plants the source of baseline emissions are the emissions avoided by displacement of grid electricity by generation of renewable electricity. Only CO<sub>2</sub> emissions are considered for this generic CPA. No project emissions or Leakage are to be accounted.</p> <p>However, when describing the sources in the PoA-DD table, information is not coherent. Thus a CL has been raised.</p>
<b>Findings</b>	CL 04
<b>Conclusion</b>	The boundary, sources and GHG emissions are well defined in the Generic CPA, according to the applied methodologies and the information is accurate.

## D.2.3.3. Baseline scenario

<b>Means of validation</b>	As the CPA will consist only in installation of greenfield plants, the baseline scenario is the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". As the baseline is given by applied methodology, the application of national and/or sectoral policies for its determination is not applicable. Nevertheless, the proposed CPA will be installed in accordance with all required national/regional regulations. However, not coherent information is being provided in the PoA-DD. Thus a CL has been raised.
<b>Findings</b>	CL 05
<b>Conclusion</b>	The baseline scenario is giving by the applied methodology and is correctly stated in the generic CPA. Therefore, the baseline scenario is not influenced by E+/E- policies from Host Country as it is determined by the applied methodology, which is entirely in accordance with national/sectoral policies. The baseline scenario is the following: <i>"Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations"</i> The requirements of instructions for completing the PoA-DD and of the PS for PoA are being followed in the proposed PoA-DD.

## D.2.3.4. Estimation of emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>According to the applied methodology ACM0002, the baseline emissions are calculated as follows:</p> $BE_y = EG_{PJ,y} \times EF_{grid,CM}$ <p>Where</p> <p>BE<sub>y</sub> = baseline emissions  EG<sub>PJ</sub> = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)  EF<sub>Grid,CM</sub> = Combined margin CO<sub>2</sub> emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (t CO<sub>2</sub>/MWh)</p> $ER = BE - PE - LE$ <p>Project emissions (PE) and Leakage emissions (LE) are equal to zero to this CPA.</p> <p>For the determination of grid emission factor calculation, the TOOL07 will be used for each CPA. The EF<sub>OM</sub> and EF<sub>BM</sub> will be determined ex-ante for each CPA and will be kept fixed along the CPA's crediting period, in accordance with paragraphs 42 a) and 72) a) of TOOL07 respectively.</p> <p>Only grid-connected power plants will be included in the determination of Operating margin emission factor.</p> <p>The EF<sub>OM</sub> will be determined either with simple OM method or Simple Adjusted OM method. The choice will be determined at the CPA's inclusion process in accordance with official information available<sup>/15/</sup> at the moment of inclusion and depending on the country which the CPA is being included. The determination of each method will be carried out in accordance with TOOL07, paragraphs 38-40.</p> <p>The EF combined margin will be fixed and determined using the weighted average CM with defined values for W<sub>OM</sub> and W<sub>BM</sub> equal to 0.75 and 0.25 respectively, in accordance with TOOL07 paragraph 86)a).</p> <p>The ER and EF calculations are described in the PoA-DD in accordance with ACM0002 and TOOL07 respectively.</p>
<b>Findings</b>	CL 06

<b>Conclusion</b>	<p>The baseline emissions and the emission reductions are calculated in accordance with applied methodology. The description is correct and accurate in the generic CPA.</p> <p>The <math>EF_{OM}</math> will be determined ex-ante for each CPA and will be calculated as per TOOL07. The determination method for <math>EF_{OM}</math> will be determined at the CPA's inclusion based on the information available for each country at this moment. The <math>EF_{BM}</math> will be determined ex-ante using the latest available information at the moment of CPA inclusion. All options used for determining the <math>EF_{grid}</math> were provided in the generic CPA-DD in accordance with requirements of TOOL07.</p> <p>The assumptions are listed in the generic CPA-DD, including their references and sources.</p> <p>The sources are correctly quoted and interpreted in the generic CPA.</p> <p>Estimated values will be applied in the specific case CPA-DD.</p> <p>The equations applied have been compared to the applied methodology and tools in order to verify its accuracy and were considered valid by the validation team. Moreover, it is confirmed that they can be replicated in the specific case CPA.</p> <p>No sampling will be carried out for determining the monitored parameters during the verification of the included CPA.</p> <p>All formulae to be applied in the ER calculations are duly explained in the PoA-DD.</p> <p>Ex ante estimations will be demonstrated at each specific case CPAs.</p> <p>The calculation demonstrated in the PoA-DD is correct and accurate.</p>
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### D.2.3.5. Monitoring plan

<b>Means of validation</b>	<p>The description of the monitoring plan was assessed based on the information provided in the generic CPA-DD, compared with required information from applied methodologies and tools. The parameters defined in the monitoring plan and used to calculate the Baseline emissions are the following:</p> <p><u>Fixed parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EF_{grid,y}</math>: Combined margin CO2 emission factor for grid connected power generation in year y calculated using the applied version of "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO2/MWh).</b> This parameter will be calculated using the parameters <math>EF_{OM}</math> and <math>EF_{BM}</math> determined ex-ante as per requirements of TOOL07. The determination methods were all defined in the generic CPA-DD. This parameter will be determined at the specific case CPA inclusion process and will remain fixed for the whole CP, being consistent with all applied electricity systems, as required by TOOL07 paragraphs 99-101.</li> </ul> <p><u>Monitoring parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EG_{PJ}</math> = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.</b> This parameter will be measured by electricity meters installed in the connection point to the grid. In case bidirectional electricity meters are not used, the parameter will be calculated as the difference between (a) the quantity of electricity supplied by the project plant/unit to the grid; and (b) the quantity of electricity the project plant/unit from the grid electricity. The electricity meters will be verified/calibrated as per national regulations. Data will be cross checked with public official information<sup>12/</sup>, or electricity sales/invoices, as applicable. The value applied for validation process (estimated value ex-ante) will be obtained by multiplying the Plant capacity (MW) x Plant Load Factor x 24 x 365.</li> </ul> <p>Nevertheless, in the PoA-DD, not correct reference to the methods for determining the <math>EF_{grid}</math> has been given. Therefore, a CL has been raised.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The monitoring plan is duly described in the generic CPA. Moreover, the monitoring plan described in the PoA-DD duly details the following elements of this plan:</p> <ul style="list-style-type: none"> <li>- Data metering and recording</li> <li>- Management structure and responsibilities</li> <li>- Policies for oversight and accountability of monitoring activities</li> </ul>

	<ul style="list-style-type: none"> <li>- Quality assurance and quality control</li> <li>- Training and monitoring personnel</li> </ul> <p>No sampling will be used for determining the monitored parameters. The estimated method used for each parameter is considered correct and accurate by the validation team. The monitoring plan is complete and duly described in the PoA in accordance with PS for PoA. The validation team compared the provided monitoring plan with requirements of applied methodologies and tools and verified that it is feasible within the project design. All fixed and monitored parameters are determined in accordance with requirements of applicable methodology and tools. The CME has demonstrated ability to implements the provided monitoring plan.</p>
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#### D.2.4. Crediting period type and duration

<b>Means of validation</b>	As well as the PoA which this CPA is attached to, the crediting period type of this CPA is renewable and its duration is 3 x 7 years and 0 months.
<b>Findings</b>	N/A
<b>Conclusion</b>	The crediting period type and duration of this CPA is in compliance with the proposed PoA to which this CPA is attached.

#### D.2.5. Eligibility criteria for inclusion of CPAs

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	The geographical boundary of this CPA is all the Chilean or Colombian territory as per definition in the proposed PoA. The validation of this criteria will be made by checking the geographical coordinates of the project in the respective Technical Feasibility Study	CAR 3	It is clear in the PoA-DD that this PoA will only accept CPAs included in the Chilean or Colombian territories. Moreover, it is defined in the PoA-DD which are the documents that will be used for confirming this information.
2.	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	A declaration of unique identification will be stated by the CME in the CPA DD when including the CPA. The information will also be verified by DOE.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
3.	Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	Every new CPA to be included in the PoA will be crosschecked within data bases of CDM projects in order to prove their authenticity. A declaration from CPA implementer will be	N/A	The information is duly provided in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		provided to validation team ensuring this condition.		
4.	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	Only greenfield solar photovoltaic power plants will be allowed under this PoA. The plants will have installed capacity between 15 and 900MW. Range of technical parameters were provided in the generic CPA as required by ACM0002. Nevertheless, the correct figures will be provided at the specific case CPA. The Technical Supplier Offer or the Technical Feasibility Study will be used for attesting the installed technology.	CAR 3	The information is duly described in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
5.	Conditions to check the start date of the CPA through documentary evidence;	The CPA start date must be after 03/02/2020, which is the start date of the PoA. When including the CPA, the CME is required to inform the 1st Contract of the construction or the main equipment or facilities and to provide evidence.	CAR 3	It is duly described in the PoA-DD that only CPAs with starting date after the PoA-Start date will be eligible for this PoA. Moreover, the required evidence for this confirmation is duly described in the PoA-DD and considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
6.	Applicability conditions of the methodology and standardized baseline	The applicability conditions of the applied methodology will be checked when including a CPA. CPA –DD will be checked and compared to Technical Supplier Offer and the Technical Feasibility Study, in order to evidence the information	CAR 3	The applicability conditions of the applied methodology and tools are all cited in the generic CPA and will be assessed at the time of Specific case CPA inclusion. It is duly defined in the PoA-DD which are the evidences that will be used for attest the compliance of the CPA

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
				with mentioned documents.
7.	The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality	<p>CPA will be additional if it fulfils the requirements of the TOOL01 - "Tool for demonstration and assessment of additionality"</p> <p>The additionality of the CPA is detailed in the section eligibility criteria of the generic CPA. Investment analysis will be carried out and the following parameters will be used:</p> <ul style="list-style-type: none"> <li>- Electricity Generation,</li> <li>- Average Sales Price</li> <li>- Annual Income</li> <li>- Total Investment</li> <li>- Average Annual Operational Costs</li> <li>- Load factor</li> <li>- Project duration</li> <li>- Taxes</li> <li>- Fair value</li> </ul> <p>The range of all economic parameters was defined in the generic CPA as required by ACM0002.</p> <p>Benchmark analysis will be used as analysis method and the project IRR will be chosen as financial indicator as per latest available TOOL27.</p> <p>The evidences provided for the investment analysis will be the Technical Supplier Offer, the Technical Feasibility Study, Investment term sheet, Financial</p>	CAR 3	<p>The section K of the generic CPA details the approach for determining additionality when TOOL01 is applied as well as the analysis method and the financial indicator. Moreover, all parameters used in the investment analysis are mentioned in the section K of the PoA-DD under Additionality section.</p> <p>The evidences required, described in the generic CPA are considered sufficient by the validation team to comply with this criteria</p>

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		analysis and official taxes for each country.  In the CPA inclusion, the additionality will have to be validated by the DOE.		
8.	Conditions to ensure the compliance with other requirements of the applied methodologies;	Only greenfield solar Photovoltaic power plants are allowed under this CPA, connected to the national grid, which comply with national/regional regulations and applicability conditions of ACM0002 and applied tools. The applicability conditions of methodology and tools were already assessed in item 6 of this table.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
9.	The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis	The local stakeholder consultation will be carried out at CPA level as part of the environmental licensing. Moreover, environmental impact analysis will be carried out also at CPA level as per requirements of national/local legislation. Evidences of Local stakeholder consultation and EIA will be assessed during the CPA inclusion, such as Minutes, stakeholder consultation reports, EIA, etc. will be provided.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.
10.	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	The CME check the information regarding public funding from Annex I party and if any, confirm that it does not result in diversion of official development assistance. The Affidavit on No public Funding from Annex I party will be provided as evidence.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
11.	Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)	The included CPAs will consist in installation of solar photovoltaic power plants connected to the grid. Technical Supplier Offer and the Technical Feasibility Study will be used as evidence of this criteria.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
12.	Where applicable, the conditions related to sampling requirements for the PoA in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities";	No sampling will be applied to the CPA.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team.
13.	Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA	Not applicable as this generic CPA will include large scales CPAs.	CAR 3	Condition duly mentioned in the PoA
14.	Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories	Not applicable as this generic CPA will include large scales CPAs.	N/A	Condition duly mentioned in the PoA

As not all eligibility criteria has been taken into account and not all evidences were mentioned, a CAR has been raised.

Refer to CAR 3

#### Conclusion:

The eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the "CDM project standard for programmes of activities.

All eligibility criterion required in the PoA-DD for inclusion of each CPA, including the conditions that corresponding CPAs, meet the requirement pertaining to the demonstration of additionality. Moreover, all these criteria are defined in accordance with the applicable requirements in the "CDM project standard for programme of activities" and could be verifiable during the CPA inclusion process. Moreover, the criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.

**D.3. Generic component project activities (CPA 02)****D.3.1. General description of generic CPA**

<b>Means of validation</b>	<p>The name and reference number of this generic CPA is “Large Scale Generic CPA 02 – CPA # 2”.</p> <p>This generic CPA cover installation of Greenfield Solar Photovoltaic Plants in the Colombian or Chilean Territory which will have its electricity dispatched to the National Grid of each country. The Purpose of the generic CPA is provide renewable energy to the national grid of each country and reduce the share of fossil-fuel power plants in the electricity matrix.</p> <p>The plants will be solar photovoltaic type, grid-connected, and will have installed capacity between 15 and 900 MW.</p> <p>The main equipments to be installed will be solar panels, inverters, transformers and electric meters. The exact facilities will be determined at each specific CPA. The capacity factor will vary from 15 to 40% <sup>/09/</sup> depending on the country and location which they will be installed. These values are standard in the market for this type of technology.</p> <p>The lifetime of main equipment will be at least 20 years <sup>/10/</sup>, which will be checked against manufacturer’s specification and industry standards.</p> <p>Electricity meters installed at the grid interface will be responsible for measuring the electricity dispatched to the grid.</p> <p>Unlike the generic CPA #1, the additionality of this generic CPA will be determined based on the Simplified procedure for demonstration of additionality, outlined in the applied methodology section 5.3.1, using TOOL32.</p> <p>However, the generic CPAs were not described in accordance with CDM rules and regulations. Moreover, not all required information was included in the PoA-DD, thus a the CARs below have been raised.</p>
<b>Findings</b>	<p>CAR 1</p> <p>CAR 2</p>
<b>Conclusion</b>	<p>It is being confirmed in the PoA-DD that the CPAs described under this generic CPA will be grid connected. The range of the age and average lifetime of main equipment were also mentioned and will be based on manufacturer’s specification and industry standards for all CPAs included.</p> <p>Information on specifications of range of installed capacities and load factors<sup>/09/</sup> in accordance with installed location and to be checked as per manufacturer’s specifications for each specific case CPA was included as required by PS for PoA. All monitoring equipment to be applied in the CPAs are duly mentioned in the PoA-DD</p> <p>It can be concluded that the projects refer to greenfield solar power plants and therefore, no plants will have been placed prior the installation of each CPA in the specific location.</p> <p>Baseline scenario is being stated in the section as per applied methodology ACM 0002 as being:</p> <p><i>“electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in “TOOL07: Tool to calculate the emission factor for an electricity system”.</i></p> <p>It is important to state that the information contained in this section is only estimative as they do not correspond to specific case CPAs. Specific information will be given in the CPA-DDs.</p> <p>The purpose and general description of generic CPA was outlined in the PoA-DD. The description is accurate, complete and provides an understanding of the Generic CPA and it is in accordance with requirements of applied methodology.</p>

**D.3.2. Selection of methodologies and standardized baselines****D.3.2.1. Deviation from methodologies and/or methodological tools**

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no deviation from methodology is expected.

**D.3.2.2. Clarification on applicability of methodology, tool and/or standardized baseline**

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no clarification on applicability of methodology to the proposed PoA has been issue.

**D.3.3. Application of methodologies and standardized baselines****D.3.3.1. General**

Means of validation	This generic CPA consists in installation of Solar Photovoltaic greenfield power plants.							
	The CPA applied the following large scale consolidated methodology:							
	<ul style="list-style-type: none"><li>- ACM0002 - Grid-connected electricity generation from renewable sources version 20.0</li></ul>							
	Moreover, the following tools are being applied:							
	<ul style="list-style-type: none"><li>- TOOL07: Tool to calculate emission factor for an electricity system” (version 7.0)</li><li>- TOOL32: Positive lists of technologies” (Version 2.0)</li></ul>							
	All applicability conditions of the applied methodology and applied tools are met:							
	<table><tr><th>Applicability Criteria – ACM0002 – v. 20.0</th><th>Assessment</th></tr><tr><td><ul style="list-style-type: none"><li>a) Install a Greenfield power plant;</li><li>b) Involve a capacity addition to (an) existing plant(s);</li><li>c) Involve a retrofit of (an) existing operating plants/units;</li><li>d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or</li><li>e) Involve a replacement of (an) existing plant(s)/unit(s).</li></ul></td><td>The PA complies with the condition (a) as it was a greenfield power plant</td></tr><tr><td><p>The methodology is applicable under the following conditions:</p><ul style="list-style-type: none"><li>a) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;</li><li>b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference</li></ul></td><td>The PA complies with the condition (a) as it is composed by solar power plant.</td></tr></table>	Applicability Criteria – ACM0002 – v. 20.0	Assessment	<ul style="list-style-type: none"><li>a) Install a Greenfield power plant;</li><li>b) Involve a capacity addition to (an) existing plant(s);</li><li>c) Involve a retrofit of (an) existing operating plants/units;</li><li>d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or</li><li>e) Involve a replacement of (an) existing plant(s)/unit(s).</li></ul>	The PA complies with the condition (a) as it was a greenfield power plant	<p>The methodology is applicable under the following conditions:</p> <ul style="list-style-type: none"><li>a) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;</li><li>b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference</li></ul>	The PA complies with the condition (a) as it is composed by solar power plant.	
Applicability Criteria – ACM0002 – v. 20.0	Assessment							
<ul style="list-style-type: none"><li>a) Install a Greenfield power plant;</li><li>b) Involve a capacity addition to (an) existing plant(s);</li><li>c) Involve a retrofit of (an) existing operating plants/units;</li><li>d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or</li><li>e) Involve a replacement of (an) existing plant(s)/unit(s).</li></ul>	The PA complies with the condition (a) as it was a greenfield power plant							
<p>The methodology is applicable under the following conditions:</p> <ul style="list-style-type: none"><li>a) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;</li><li>b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference</li></ul>	The PA complies with the condition (a) as it is composed by solar power plant.							

	<p>period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.</p>	
	<p>In case of hydro power plants, one of the following conditions shall apply:</p> <ul style="list-style-type: none"> <li>a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or</li> <li>b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (3), is greater than 4 W/m<sup>2</sup>; or</li> <li>c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (3), is greater than 4 W/m<sup>2</sup> ; or</li> <li>d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (3), is lower than or equal to 4 W/m<sup>2</sup> ,</li> </ul>	<p>Not applied for this PA as it corresponds to solar power plant</p>
	<p>In the case of integrated hydro power projects, project proponent shall</p> <ul style="list-style-type: none"> <li>a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or:</li> <li>b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum five years prior to implementation of CDM project activity.</li> </ul>	<p>Not applicable, as the PA is not an integrated hydro power project</p>

The methodology is not applicable to:

- a) 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;
- b) Biomass fired power plants/units.

Not applied for this PA as it corresponds to solar power plant

In the case of retrofits, rehabilitations, 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, that is 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"

The PA is not a project with capacity addition, retrofit, replacement or rehabilitation.

The applicability conditions of all tools are also met as follows

Applicability Criteria – TOOL 07	Assessment
This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This CPA refers to project activity that generates electricity that substitutes grid electricity. Therefore this tool is applicable to this CPA.
Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants.	Only grid power plants will be included. Therefore, this condition is met.
In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country	The electricity system will not be located partially or totally in the Annex I country. Therefore, this condition is met.
Under this tool, the value applied to the CO2 emission factor of biofuels is zero	CO2 emission factor for biofuels will be considered equal to zero. Therefore, this condition is met.

Applicability Criteria – TOOL 32	Assessment
When applying baseline and monitoring methodologies that refer to this tool, project activities and PoAs are deemed automatically additional if they exclusively apply the technologies listed under this section and demonstrate that they fulfil the related conditions specified in the same section.	At the moment of CPA inclusion, the applicability of this tool will be checked for automatic additionality in accordance with paragraph 13 and 14 of TOOL32.

However not all applicability conditions of the methodologies and tools were mentioned in the PoA DD. Thus a CL has been raised.

<b>Findings</b>	CL 03
<b>Conclusion</b>	The application of the methodology ACM0002 in the PoA is allowed by the CDM guidelines as well as the applied tools. No Standardized baselines will be applied. Therefore, this generic CPA is in accordance with CDM regulations. The CME has applied the latest version the methodology and tools informed above. The selected methodologies were correctly applied with respect to project boundary, baseline identification, algorithms and formulae used to determine emission reductions, additionality and monitoring methodology. The selected tools are correctly applied with respect to the determination of the Grid Emission Factor and additionality.

#### D.3.3.2. Project boundary, sources and GHGs

<b>Means of validation</b>	The project boundary is Chile and/or Colombian Territories. It was assessed by means of interviews performed to the CME. Moreover, description of the project provided to the Countries' DNAs and the Letters of Approval issued by each DNA corroborates the information. The location of CPAs will be checked through Technical Feasibility Study of the power plant. As the project consists in installation of PV plants the source of baseline emissions are the emissions avoided by displacement of grid electricity by generation of renewable electricity. Only CO <sub>2</sub> emissions are considered for this generic CPA. No project emissions or Leakage are to be accounted. However, when describing the sources in the PoA-DD table, information is not coherent. Thus a CL has been raised.
<b>Findings</b>	CL 04
<b>Conclusion</b>	The boundary, sources and GHG emissions are well defined in the Generic CPA, according to the applied methodologies and the information is accurate.

#### D.3.3.3. Baseline scenario

<b>Means of validation</b>	As the CPA will consist only in installation of greenfield plants, the baseline scenario is the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". As the baseline is given by applied methodology, the application of national and/or sectoral policies for its determination is not applicable. Nevertheless, the proposed CPA will be installed in accordance with all required national/regional regulations. However, not coherent information is being provided in the PoA-DD. Thus a CL has been raised.
<b>Findings</b>	CL 05
<b>Conclusion</b>	The baseline scenario is giving by the applied methodology and is correctly stated in the generic CPA. Therefore, the baseline scenario is not influenced by E+/E- policies from Host Country as it is determined by the applied methodology, which is entirely in accordance with national/sectoral policies. The baseline scenario is the following: " <i>Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations</i> " The requirements of instructions for completing the PoA-DD and of the PS for PoA are being followed in the proposed PoA-DD.

#### D.3.3.4. Estimation of emission reductions or net anthropogenic removals

<b>Means of validation</b>	According to the applied methodology ACM0002, the baseline emissions are calculated as follows: $BE_y = EG_{PJ,y} \times EF_{grid,CM}$ Where
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	<p>BE<sub>y</sub> = baseline emissions  EG<sub>PJ</sub> = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)  EF<sub>Grid,CM</sub> = Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (t CO2/MWh)</p> $ER = BE - PE - LE$ <p>Project emissions (PE) and Leakage emissions (LE) are equal to zero to this CPA.</p> <p>For the determination of grid emission factor calculation, the TOOL07 will be used for each CPA. The EF<sub>OM</sub> and EF<sub>BM</sub> will be determined ex-ante for each CPA and will be kept fixed along the CPA's crediting period, in accordance with paragraphs 42 a) and 72) a) of TOOL07 respectively.</p> <p>Only grid-connected power plants will be included in the determination of Operating margin emission factor.</p> <p>The EF<sub>OM</sub> will be determined either with simple OM method or Simple Adjusted OM method. The choice will be determined at the CPA's inclusion process in accordance with official information available<sup>/15/</sup> at the moment of inclusion and depending on the country which the CPA is being included. The determination of each method will be carried out in accordance with TOOL07, paragraphs 38-40.</p> <p>The EF combined margin will be fixed and determined using the weighted average CM with defined values for W<sub>OM</sub> and W<sub>BM</sub> equal to 0.75 and 0.25 respectively, in accordance with TOOL07 paragraph 86)a).</p> <p>The ER and EF calculations are described in the PoA-DD in accordance with ACM0002 and TOOL07 respectively.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The baseline emissions and the emission reductions are calculated in accordance with applied methodology. The description is correct and accurate in the generic CPA.</p> <p>The EF<sub>OM</sub> will be determined ex-ante for each CPA and will be calculated as per TOOL07. The determination method for EF<sub>OM</sub> will be determined at the CPA's inclusion based on the information available for each country at this moment. The EF<sub>BM</sub> will be determined ex-ante using the latest available information at the moment of CPA inclusion. All options used for determining the EF<sub>grid</sub> were provided in the generic CPA-DD in accordance with requirements of TOOL07.</p> <p>The assumptions are listed in the generic CPA-DD, including their references and sources.</p> <p>The sources are correctly quoted and interpreted in the generic CPA.</p> <p>Estimated values will be applied in the specific case CPA-DD.</p> <p>The equations applied have been compared to the applied methodology and tools in order to verify its accuracy and were considered valid by the validation team. Moreover, it is confirmed that they can be replicated in the specific case CPA.</p> <p>No sampling will be carried out for determining the monitored parameters during the verification of the included CPA.</p> <p>All formulae to be applied in the ER calculations are duly explained in the PoA-DD.</p> <p>Ex ante estimations will be demonstrated at each specific case CPAs.</p> <p>The calculation demonstrated in the PoA-DD is correct and accurate.</p>

#### D.3.3.5. Monitoring plan

<b>Means of validation</b>	<p>The description of the monitoring plan was assessed based on the information provided in the generic CPA-DD, compared with required information from applied methodologies and tools. The parameters defined in the monitoring plan and used to calculate the Baseline emissions are the following:</p> <p><u>Fixed parameter:</u></p> <ul style="list-style-type: none"> <li>- <b>EF<sub>grid,y</sub>: Combined margin CO2 emission factor for grid connected power generation in year y calculated using the applied version of “TOOL07: Tool to calculate the emission factor for an electricity system” (t CO2/MWh).</b></li> </ul>
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	<p>This parameter will be calculated using the parameters <math>EF_{OM}</math> and <math>EF_{BM}</math> determined ex-ante as per requirements of TOOL07. The determination methods were all defined in the generic CPA-DD. This parameter will be determined at the specific case CPA inclusion process and will remain fixed for the whole CP, being consistent with all applied electricity systems, as required by TOOL07 paragraphs 99-101.</p> <ul style="list-style-type: none"> <li>- <b>percentage share of total installed capacity of the specific technology in the total installed grid connected power generation capacity in the host country:</b> value will be based on available national statistics or other official data and will be determined at the moment of CPA inclusion.</li> <li>- <b>total installed capacity of the technology in the host country;</b> value will be based on available national statistics or other official data and will be determined at the moment of CPA inclusion.</li> </ul> <p><u>Monitoring parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EG_{PJ}</math> = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.</b> This parameter will be measured by electricity meters installed in the connection point to the grid. In case bidirectional electricity meters are not used, the parameter will be calculated as the difference between (a) the quantity of electricity supplied by the project plant/unit to the grid; and (b) the quantity of electricity the project plant/unit from the grid electricity. The electricity meters will be verified/calibrated as per national regulations. Data will be cross checked with public official information<sup>/12/</sup>, or electricity sales/invoices, as applicable. The value applied for validation process (estimated value ex-ante) will be obtained by multiplying the Plant capacity (MW) x Plant Load Factor x 24 x 365.</li> </ul> <p>Nevertheless, in the PoA-DD, not correct reference to the methods for determining the <math>EF_{grid}</math> has been given. Therefore, a CL has been raised.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The monitoring plan is duly described in the generic CPA. Moreover, the monitoring plan described in the PoA-DD duly details the following elements of this plan:</p> <ul style="list-style-type: none"> <li>- Data metering and recording</li> <li>- Management structure and responsibilities</li> <li>- Policies for oversight and accountability of monitoring activities</li> <li>- Quality assurance and quality control</li> <li>- Training and monitoring personnel</li> </ul> <p>No sampling will be used for determining the monitored parameters.</p> <p>The estimated method used for each parameter is considered correct and accurate by the validation team.</p> <p>The monitoring plan is complete and duly described in the PoA in accordance with PS for PoA. The validation team compared the provided monitoring plan with requirements of applied methodologies and tools and verified that it is feasible within the project design.</p> <p>All fixed and monitored parameters are determined in accordance with requirements of applicable methodology and tools.</p> <p>The CME has demonstrated ability to implement the provided monitoring plan.</p>

#### D.3.4. Crediting period type and duration

<b>Means of validation</b>	As well as the PoA which this CPA is attached to, the crediting period type of this CPA is renewable and its duration is 3 x 7 years and 0 months.
<b>Findings</b>	N/A
<b>Conclusion</b>	The crediting period type and duration of this CPA is in compliance with the proposed PoA to which this CPA is attached.

## D.3.5. Eligibility criteria for inclusion of CPAs

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	The geographical boundary of this CPA is all the Chilean or Colombian territory as per definition in the proposed PoA. The validation of this criteria will be made by checking the geographical coordinates of the project in the respective Technical Feasibility Study	CAR 3	It is clear in the PoA-DD that this PoA will only accept CPAs included in the Chilean or Colombian territories. Moreover, it is defined in the PoA-DD which are the documents that will be used for confirming this information.
2.	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	A declaration of unique identification will be stated by the CME in the CPA DD when including the CPA. The information will also be verified by DOE.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
3.	Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	Every new CPA to be included in the PoA will be crosschecked within data bases of CDM projects in order to prove their authenticity. A declaration from CPA implementer will be provided to validation team ensuring this condition.	N/A	The information is duly provided in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
4.	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	Only greenfield solar photovoltaic power plants will be allowed under this PoA. The plants will have installed capacity between 15 and 900 MW. Range of technical parametrs were provided in the generic CPA as required by ACM0002. Nevertheless, the correct figures will be provided at the specific case CPA. The Technical Supplier Offer or the Technical Feasibility Study will be used for attesting	CAR 3	The information is duly described in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		the installed technology.		
5.	Conditions to check the start date of the CPA through documentary evidence;	The CPA start date must be after 03/02/2020, which is the start date of the PoA. When including the CPA, the CME is required to inform the 1st Contract of the construction or the main equipment or facilities and to provide evidence.	CAR 3	It is duly described in the PoA-DD that only CPAs with starting date after the PoA-Start date will be eligible for this PoA. Moreover, the required evidence for this confirmation is duly described in the PoA-DD and considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
6.	Applicability conditions of the methodology and standardized baseline	The applicability conditions of the applied methodology will be checked when including a CPA. CPA –DD will be checked and compared to Technical Supplier Offer and the Technical Feasibility Study, in order to evidence the information	CAR 3	The applicability conditions of the applied methodology and tools are all cited in the generic CPA and will be assessed at the time of Specific case CPA inclusion. It is duly defined in the PoA-DD which are the evidences that will be used for attest the compliance of the CPA with mentioned documents.
7.	The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality	CPA will be additional if it fulfils the requirements of the TOOL 32 (positive list of technologies)  TOOL 32 will only be applied in case technologies are included in paragraph 13 of the TOOL32 <u>and</u> if, at the moment of submission of CPA for inclusion, any of these conditions are met: - The percentage share of total installed capacity of the specific technology in the total installed grid	CAR 3	The section K of the generic CPA details the approach for determining additionality when TOOL32 is applied. The conditions for its applicability are mentioned in the section K of the PoA-DD under Additionality section.  The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		<p>connected power generation capacity in the host country is equal to or less than two per cent; or</p> <ul style="list-style-type: none"> <li>- The total installed capacity of the technology in the host country is less than or equal to 50 MW.</li> </ul> <p>In the CPA inclusion, the additionality will have to be validated by the DOE. Public official information available at the time of CPA inclusion will be used as evidence.</p>		
8.	Conditions to ensure the compliance with other requirements of the applied methodologies;	<p>Only greenfield solar Photovoltaic power plants are allowed under this CPA, connected to the national grid, which comply with national/regional regulations and applicability conditions of ACM0002 and applied tools. The applicability conditions of methodology and tools were already assessed in item 6 of this table.</p>	N/A	<p>The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria</p>
9.	The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis	<p>The local stakeholder consultation will be carried out at CPA level as part of the environmental licensing. Moreover, environmental impact analysis will be carried out also at CPA level as per requirements of national/local legislation. Evidences of Local stakeholder consultation and EIA will be assessed during the CPA</p>	N/A	<p>The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.</p>

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		inclusion, such as Minutes, stakeholder consultation reports, EIA, etc. will be provided.		
10.	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	The CME check the information regarding public funding from Annex I party and if any, confirm that it does not result in diversion of official development assistance. The Affidavit on No public Funding from Annex I party will be provided as evidence.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
11.	Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)	The included CPAs will consist in installation of solar photovoltaic power plants connected to the grid. Technical Supplier Offer and the Technical Feasibility Study will be used as evidence of this criteria.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
12.	Where applicable, the conditions related to sampling requirements for the PoA in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities";	No sampling will be applied to the CPA.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team.
13.	Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA	Not applicable as this generic CPA will include large scales CPAs.	CAR 3	Condition duly mentioned in the PoA
14.	Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories	Not applicable as this generic CPA will include large scales CPAs.	N/A	Condition duly mentioned in the PoA

As not all eligibility criteria has been taken into account and not all evidences were mentioned, a CAR has been raised.

Refer to CAR 3

Conclusion:

The eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the “CDM project standard for programmes of activities.

All eligibility criterion required in the PoA-DD for inclusion of each CPA, including the conditions that corresponding CPAs, meet the requirement pertaining to the demonstration of additionality. Moreover, all these criteria are defined in accordance with the applicable requirements in the “CDM project standard for programme of activities” and could be verifiable during the CPA inclusion process. Moreover, the criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.

**D.4. Generic component project activities (CPA 03)****D.4.1. General description of generic CPA**

<b>Means of validation</b>	<p>The name and reference number of this generic CPA is “Wind Generic CPA 03” – CPA # 3.</p> <p>This generic CPA cover installation of Greenfield Wind Power Plants in the Colombian or Chilean Territory which will have its electricity dispatched to the National Grid of each country. The Purpose of the generic CPA is provide renewable energy to the national grid of each country and reduce the share of fossil-fuel power plants in the electricity matrix.</p> <p>The plants will be wind power type, grid-connected, and will have installed capacity between 1 and 900 MW. Nevertheless, they will all be considered large scale projects as they will apply large scale methodology ACM0002.</p> <p>The main equipments to be installed will be Wind turbines, inverters, transformers and electric meters. The exact facilities will be determined at each specific CPA. The capacity factor will vary from 15 to 60% <sup>/09/</sup> depending on the country and location which they will be installed. These values are standard in the market for this type of technology.</p> <p>The lifetime of main equipment will be at least 20 years and will be checked against manufacturer’s specification and industry standards<sup>/10/</sup> for each specific case CPA. Electricity meters installed at the grid interface will be responsible for measuring the electricity dispatched to the grid.</p> <p>The additionality of this generic CPA will be determined based on the General procedure for demonstration of additionality, outlined in the applied methodology section 5.3.2, using TOOL01.</p> <p>However, the generic CPAs were not described in accordance with CDM rules and regulations. Moreover, not all required information was included in the PoA-DD, thus a the CARs below have been raised.</p>
<b>Findings</b>	<p>CAR 1</p> <p>CAR 2</p>

<b>Conclusion</b>	<p>It is being confirmed in the PoA-DD that the CPAs described under this generic CPA will be grid connected. The range of the age and average lifetime of main equipment were also mentioned and will be based on manufacturer's specification and industry standards<sup>/09/, /10/</sup> for each specific case CPA</p> <p>Information on specifications of range of installed capacities and load factors<sup>/09/</sup> in accordance with installed location, which will be checked against manufacturer's specifications was included as required by PS for PoA.</p> <p>All monitoring equipment to be applied in the CPAs are duly mentioned in the PoA-DD</p> <p>It can be concluded that the projects refer to greenfield wind power plants and therefore, no plants will have been placed prior the installation of each CPA in the specific location.</p> <p>Baseline scenario is being stated in the section as per applied methodology ACM 0002 as being:</p> <p><i>"electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in "TOOL07: Tool to calculate the emission factor for an electricity system".</i></p> <p>It is important to state that the information contained in this section is only estimative as they do not correspond to specific case CPAs. Specific information will be given in the CPA-DDs. The purpose and general description of generic CPA was outlined in the PoA-DD. The description is accurate, complete and provides an understanding of the Generic CPA and it is in accordance with requirements of applied methodology.</p>
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#### D.4.2. Selection of methodologies and standardized baselines

##### D.4.2.1. Deviation from methodologies and/or methodological tools

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no deviation from methodology is expected.

##### D.4.2.2. Clarification on applicability of methodology, tool and/or standardized baseline

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no clarification on applicability of methodology to the proposed PoA has been issue.

#### D.4.3. Application of methodologies and standardized baselines

##### D.4.3.1. General

<b>Means of validation</b>	<p>This generic CPA consists in installation of Wind greenfield power plants.</p> <p>The CPA applied the following large scale consolidated methodology:</p> <ul style="list-style-type: none"> <li>- ACM0002 - Grid-connected electricity generation from renewable sources version 20.0</li> </ul> <p>Moreover, the following tools are being applied:</p> <ul style="list-style-type: none"> <li>- TOOL01: Tool for the demonstration and assessment of additionality" (version 07.0.0)</li> <li>- TOOL07: Tool to calculate emission factor for an electricity system" (version 7.0)</li> </ul> <p>All applicability conditions of the applied methodology and applied tools are met:</p>	
	<b>Applicability Criteria – ACM0002 – v. 20.0</b>	<b>Assessment</b>

	<p>f) Install a Greenfield power plant;</p> <p>g) Involve a capacity addition to (an) existing plant(s);</p> <p>h) Involve a retrofit of (an) existing operating plants/units;</p> <p>i) Involve a rehabilitation of (an) existing plant(s)/unit(s); or</p> <p>j) Involve a replacement of (an) existing plant(s)/unit(s).</p>	The PA complies with the condition (a) as it was a greenfield power plant
	<p>The methodology is applicable under the following conditions:</p> <p>c) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;</p> <p>d) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit 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 expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.</p>	The PA complies with the condition (a) as it is composed by wind power plant.
	<p>In case of hydro power plants, one of the following conditions shall apply:</p> <p>e) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or</p> <p>f) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (3), is greater than 4 W/m<sup>2</sup>; or</p> <p>g) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (3), is greater than 4 W/m<sup>2</sup> ; or</p> <p>h) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (3), is lower than or equal to 4 W/m<sup>2</sup> ,</p>	Not applied for this PA as it corresponds to wind power plant
	<p>In the case of integrated hydro power projects, project proponent shall</p> <p>c) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that</p>	Not applicable, as the PA is not an integrated hydro power project

	collectively constitute to the generation capacity of the integrated hydro power project; or:	
	d) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum five years prior to implementation of CDM project activity.	
	The methodology is not applicable to: c) 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;  d) Biomass fired power plants/units.	Not applied for this PA as it corresponds to wind power plant
	In the case of retrofits, rehabilitations, 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, that is 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"	The PA is not a project with capacity addition, retrofit, replacement or rehabilitation.
The applicability conditions of all tools are also met as follows		
<b>Applicability Criteria – TOOL 01</b>		<b>Assessment</b>
This tool provides for a step-wise approach to demonstrate and assess additionality.		This tool will be applied to demonstrate the additionality of the CPA, as per applied methodology section 5.3.2
<b>Applicability Criteria – TOOL 07</b>		<b>Assessment</b>

	This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This CPA refers to project activity that generates electricity that substitutes grid electricity. Therefore this tool is applicable to this CPA.
	Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants.	Only grid power plants will be included. Therefore, this condition is met.
	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country	The electricity system will not be located partially or totally in the Annex I country. Therefore, this condition is met.
	Under this tool, the value applied to the CO <sub>2</sub> emission factor of biofuels is zero	CO <sub>2</sub> emission factor for biofuels will be considered equal to zero. Therefore, this condition is met.
However not all applicability conditions of the methodologies and tools were mentioned in the PoA DD. Thus a CL has been raised.		
<b>Findings</b>	CL 03	
<b>Conclusion</b>	<p>The application of the methodology ACM0002 in the PoA is allowed by the CDM guidelines as well as the applied tools. No Standardized baselines will be applied. Therefore, this generic CPA is in accordance with CDM regulations. The CME has applied the latest version the methodology and tools informed above.</p> <p>The selected methodologies were correctly applied with respect to project boundary, baseline identification, algorithms and formulae used to determine emission reductions, additionality and monitoring methodology. The selected tools are correctly applied with respect to the determination of the Grid Emission Factor and additionality.</p>	

#### D.4.3.2. Project boundary, sources and GHGs

<b>Means of validation</b>	<p>The project boundary is Chile and/or Colombian Territories. It was assessed by means of interviews performed to the CME. Moreover, description of the project provided to the Countries' DNAs and the Letters of Approval issued by each DNA corroborates the information. The location of CPAs will be checked through Technical Feasibility Study of the power plant.</p> <p>As the project consists in installation of Wind power plants the source of baseline emissions are the emissions avoided by displacement of grid electricity by generation of renewable electricity. Only CO<sub>2</sub> emissions are considered for this generic CPA. No project emissions or Leakage are to be accounted.</p> <p>However, when describing the sources in the PoA-DD table, information is not coherent. Thus a CL has been raised.</p>
<b>Findings</b>	CL 04
<b>Conclusion</b>	The boundary, sources and GHG emissions are well defined in the Generic CPA, according to the applied methodologies and the information is accurate.

#### D.4.3.3. Baseline scenario

<b>Means of validation</b>	As the CPA will consist only in installation of greenfield plants, the baseline scenario is the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition
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	of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". As the baseline is given by applied methodology, the application of national and/or sectoral policies for its determination is not applicable. Nevertheless, the proposed CPA will be installed in accordance with all required national/regional regulations. However, not coherent information is being provided in the PoA-DD. Thus a CL has been raised.
<b>Findings</b>	CL 05
<b>Conclusion</b>	<p>The baseline scenario is giving by the applied methodology and is correctly stated in the generic CPA. Therefore, the baseline scenario is not influenced by E+/E-policies from Host Country as it is determined by the applied methodology, which is entirely in accordance with national/sectoral policies.</p> <p>The baseline scenario is the following: <i>"Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations"</i></p> <p>The requirements of instructions for completing the PoA-DD and of the PS for PoA are being followed in the proposed PoA-DD.</p>

#### D.4.3.4. Estimation of emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>According to the applied methodology ACM0002, the baseline emissions are calculated as follows:</p> $BE_y = EG_{PJ,y} \times EF_{grid,CM}$ <p>Where</p> <p>BE<sub>y</sub> = baseline emissions  EG<sub>PJ</sub> = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)  EF<sub>Grid,CM</sub> = Combined margin CO<sub>2</sub> emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (t CO<sub>2</sub>/MWh)</p> $ER = BE - PE - LE$ <p>Project emissions (PE) and Leakage emissions (LE) are equal to zero to this CPA.</p> <p>For the determination of grid emission factor calculation, the TOOL07 will be used for each CPA. The EF<sub>OM</sub> and EF<sub>BM</sub> will be determined ex-ante for each CPA and will be kept fixed along the CPA's crediting period, in accordance with paragraphs 42 a) and 72) a) of TOOL07 respectively.</p> <p>Only grid-connected power plants will be included in the determination of Operating margin emission factor.</p> <p>The EF<sub>OM</sub> will be determined either with simple OM method or Simple Adjusted OM method. The choice will be determined at the CPA's inclusion process in accordance with official information available<sup>/15/</sup> at the moment of inclusion and depending on the country which the CPA is being included. The determination of each method will be carried out in accordance with TOOL07, paragraphs 38-40.</p> <p>The EF combined margin will be fixed and determined using the weighted average CM with defined values for W<sub>OM</sub> and W<sub>BM</sub> equal to 0.75 and 0.25 respectively, in accordance with TOOL07 paragraph 86)a).</p> <p>The ER and EF calculations are described in the PoA-DD in accordance with ACM0002 and TOOL07 respectively.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The baseline emissions and the emission reductions are calculated in accordance with applied methodology. The description is correct and accurate in the generic CPA.</p> <p>The EF<sub>OM</sub> will be determined ex-ante for each CPA and will be calculated as per TOOL07. The determination method for EF<sub>OM</sub> will be determined at the CPA's inclusion based on the information available for each country at this moment. The</p>

	<p>EF<sub>BM</sub> will be determined ex-ante using the latest available information at the moment of CPA inclusion. All options used for determining the EF<sub>grid</sub> were provided in the generic CPA-DD in accordance with requirements of TOOL07.</p> <p>The assumptions are listed in the generic CPA-DD, including their references and sources.</p> <p>The sources are correctly quoted and interpreted in the generic CPA.</p> <p>Estimated values will be applied in the specific case CPA-DD.</p> <p>The equations applied have been compared to the applied methodology and tools in order to verify its accuracy and were considered valid by the validation team.</p> <p>Moreover, it is confirmed that they can be replicated in the specific case CPA.</p> <p>No sampling will be carried out for determining the monitored parameters during the verification of the included CPA.</p> <p>All formulae to be applied in the ER calculations are duly explained in the PoA-DD.</p> <p>Ex ante estimations will be demonstrated at each specific case CPAs.</p> <p>The calculation demonstrated in the PoA-DD is correct and accurate.</p>
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#### D.4.3.5. Monitoring plan

Means of validation	<p>The description of the monitoring plan was assessed based on the information provided in the generic CPA-DD, compared with required information from applied methodologies and tools. The parameters defined in the monitoring plan and used to calculate the Baseline emissions are the following:</p> <p><u>Fixed parameter:</u></p> <ul style="list-style-type: none"> <li>- <b>EF<sub>grid,y</sub>: Combined margin CO2 emission factor for grid connected power generation in year y calculated using the applied version of "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO2/MWh).</b> This parameter will be calculated using the parameters EF<sub>OM</sub> and EF<sub>BM</sub> determined ex-ante as per requirements of TOOL07. The determination methods were all defined in the generic CPA-DD. This parameter will be determined at the specific case CPA inclusion process and will remain fixed for the whole CP, being consistent with all applied electricity systems, as required by TOOL07 paragraphs 99-101.</li> </ul> <p><u>Monitoring parameter:</u></p> <ul style="list-style-type: none"> <li>- <b>EG<sub>PJ</sub> = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.</b> This parameter will be measured by electricity meters installed in the connection point to the grid. In case bidirectional electricity meters are not used, the parameter will be calculated as the difference between (a) the quantity of electricity supplied by the project plant/unit to the grid; and (b) the quantity of electricity the project plant/unit from the grid electricity. The electricity meters will be verified/calibrated as per national regulations. Data will be cross checked with public official information<sup>15/</sup>, or electricity sales/invoices, as applicable. The value applied for validation process (estimated value ex-ante) will be obtained by multiplying the Plant capacity (MW) x Plant Load Factor x 24 x 365.</li> </ul> <p>Nevertheless, in the PoA-DD, not correct reference to the methods for determining the EF<sub>grid</sub> has been given. Therefore, a CL has been raised.</p>
Findings	CL 06
Conclusion	<p>The monitoring plan is duly described in the generic CPA. Moreover, the monitoring plan described in the PoA-DD duly details the following elements of this plan:</p> <ul style="list-style-type: none"> <li>- Data metering and recording</li> <li>- Management structure and responsibilities</li> <li>- Policies for oversighting and accountability of monitoring activities</li> <li>- Quality assurance and quality control</li> <li>- Training and monitoring personnel</li> </ul> <p>No sampling will be used for determining the monitored parameters.</p> <p>The estimated method used for each parameter is considered correct and accurate by the validation team.</p>

	<p>The monitoring plan is complete and duly described in the PoA in accordance with PS for PoA. The validation team compared the provided monitoring plan with requirements of applied methodologies and tools and verified that it is feasible within the project design.</p> <p>All fixed and monitored parameters are determined in accordance with requirements of applicable methodology and tools.</p> <p>The CME has demonstrated ability to implements the provided monitoring plan.</p>
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**D.4.4. Crediting period type and duration**

<b>Means of validation</b>	As well as the PoA which this CPA is attached to, the crediting period type of this CPA is renewable and its duration is 3 x 7 years and 0 months.
<b>Findings</b>	N/A
<b>Conclusion</b>	The crediting period type and duration of this CPA is in compliance with the proposed PoA to which this CPA is attached.

**D.4.5. Eligibility criteria for inclusion of CPAs**

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	The geographical boundary of this CPA is all the Chilean or Colombian territory as per definition in the proposed PoA. The validation of this criteria will be made by checking the geographical coordinates of the project in the respective Technical Feasibility Study	CAR 3	It is clear in the PoA-DD that this PoA will only accept CPAs included in the Chilean or Colombian territories. Moreover, it is defined in the PoA-DD which are the documents that will be used for confirming this information.
2.	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	A declaration of unique identification will be stated by the CME in the CPA DD when including the CPA. The information will also be verified by DOE.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
3.	Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	Every new CPA to be included in the PoA will be crosschecked within data bases of CDM projects in order to prove their authenticity. A declaration from CPA implementer will be provided to validation team ensuring this condition.	N/A	The information is duly provided in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
4.	The specifications of technology/measure including the level and	Only greenfield wind power plants will be allowed under this	CAR 3	The information is duly described in the PoA-DD. The evidences

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
	type of service, performance specifications including compliance with testing/certifications;	PoA. The installed capacity will be between 1 and 900 MW. However they will all be considered large scales as they are applying large scale methodology. Range of technical parameters were provided in the generic CPA as required by ACM0002. Nevertheless, the correct figures will be provided at the specific case CPA. The Technical Supplier Offer or the Technical Feasibility Study will be used for attesting the installed technology.		required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
5.	Conditions to check the start date of the CPA through documentary evidence;	The CPA start date must be after 03/02/2020, which is the start date of the PoA. When including the CPA, the CME is required to inform the 1st Contract of the construction or the main equipment or facilities and to provide evidence.	CAR 3	It is duly described in the PoA-DD that only CPAs with starting date after the PoA-Start date will be eligible for this PoA. Moreover, the required evidence for this confirmation is duly described in the PoA-DD and considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
6.	Applicability conditions of the methodology and standardized baseline	The applicability conditions of the applied methodology will be checked when including a CPA. CPA –DD will be checked and compared to Technical Supplier Offer and the Technical Feasibility Study, in order to evidence the information	CAR 3	The applicability conditions of the applied methodology and tools are all cited in the generic CPA and will be assessed at the time of Specific case CPA inclusion. It is duly defined in the PoA-DD which are the evidences that will be used for attest the compliance of the CPA with mentioned documents.

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
7.	The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality	<p>CPA will be additional if it fulfils the requirements of the TOOL01 - "Tool for demonstration and assessment of additionality"</p> <p>The information for assessing the additionality of the CPA is detailed in the section eligibility criteria of the generic CPA. Investment analysis will be carried out and the following parameters will be used:</p> <ul style="list-style-type: none"> <li>- Electricity Generation,</li> <li>- Average Sales Price</li> <li>- Annual Income</li> <li>- Total Investment</li> <li>- Average Annual Operational Costs</li> <li>- Load factor</li> <li>- Project duration</li> <li>- Taxes</li> <li>- Fair value</li> </ul> <p>All economical ranges were defined in the generic CPA in accordance with ACM0002. Benchmark analysis will be used as analysis method and the project IRR will be chosen as financial indicator as per latest available TOOL27.</p> <p>The evidences provided for the investment analysis will be the Technical Supplier Offer, the Technical Feasibility Study, Investment term sheet, Financial analysis and official taxes for each country.</p>	CAR 3	<p>The section K of the generic CPA details the approach for determining additionality when TOOL01 is applied as well as the analysis method and the financial indicator. Moreover, all parameters used in the investment analysis are mentioned in the section K of the PoA-DD under Additionality section.</p> <p>The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria</p>

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		In the CPA inclusion, the additionality will have to be validated by the DOE.		
8.	Conditions to ensure the compliance with other requirements of the applied methodologies;	Only greenfield Wind power plants are allowed under this CPA, connected to the national grid, which comply with national/regional regulations and applicability conditions of ACM0002 and applied tools. The applicability conditions of methodology and tools were already assessed in item 6 of this table.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
9.	The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis	The local stakeholder consultation will be carried out at CPA level as part of the environmental licensing. Moreover, environmental impact analysis will be carried out also at CPA level as per requirements of national/local legislation. Evidences of Local stakeholder consultation and EIA will be assessed during the CPA inclusion, such as Minutes, stakeholder consultation reports, EIA, etc. will be provided.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.
10.	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	The CME check the information regarding public funding from Annex I party and if any, confirm that it does not result in diversion of official development assistance. The Affidavit on No public Funding from Annex I party will be provided as evidence.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
11.	Where applicable, target group (e.g. domestic/commercial/indu	The included CPAs will consist in installation of wind	N/A	The evidences required, described in the generic CPA are

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
	strial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)	power plants connected to the grid. Technical Supplier Offer and the Technical Feasibility Study will be used as evidence of this criteria.		considered sufficient by the verification team to comply with this criteria
12.	Where applicable, the conditions related to sampling requirements for the PoA in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities”;	No sampling will be applied to the CPA.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team.
13.	Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA	Not applicable as this generic CPA will include large scales CPAs.	CAR 3	Condition duly mentioned in the PoA
14.	Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories	Not applicable as this generic CPA will include large scales CPAs.	N/A	Condition duly mentioned in the PoA

As not all eligibility criteria has been taken into account and not all evidences were mentioned, a CAR has been raised.

Refer to CAR 3

#### Conclusion:

The eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the “CDM project standard for programmes of activities.

All eligibility criterion required in the PoA-DD for inclusion of each CPA, including the conditions that corresponding CPAs, meet the requirement pertaining to the demonstration of additionality. Moreover, all these criteria are defined in accordance with the applicable requirements in the “CDM project standard for programme of activities” and could be verifiable during the CPA inclusion process. Moreover, the criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.

## **D.5. Generic component project activities (CPA 04)**

### **D.5.1. General description of generic CPA**

<b>Means of validation</b>	The name and reference number of this generic CPA is “Small Scale Generic CPA 04 – CPA # 4”.
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	<p>This generic CPA cover installation of small-scale Greenfield Solar Photovoltaic Plants in the Colombian or Chilean Territory which will have its electricity dispatched to the National Grid of each country. The Purpose of the generic CPA is provide renewable energy to the national grid of each country and reduce the share of fossil-fuel power plants in the electricity matrix.</p> <p>This project is Type I project as per Project Standard.</p> <p>The plants will be solar photovoltaic type, grid-connected, and will have installed capacity smaller or equal to 15MW.</p> <p>The main equipments to be installed will be solar panels, inverters, transformers and electric meters. The exact facilities will be determined at each specific CPA. The capacity factor will be at least 15 %<sup>/09/</sup> depending on the country and location which they will be installed. These values are standard in the market for this type of technology.</p> <p>The lifetime of main equipment will be at least 20 years and will be checked against manufacturer's specification and industry standards<sup>/10/</sup>.</p> <p>Electricity meters installed at the grid interface will be responsible for measuring the electricity dispatched to the grid.</p> <p>The projects under this generic CPA will be automatically additional according to TOOL21 and TOOL32.</p> <p>However, the generic CPAs were not described in accordance with CDM rules and regulations. Moreover, not all required information was included in the PoA-DD, thus the CARs below have been raised.</p>
<b>Findings</b>	<p>CAR 1</p> <p>CAR 2</p>
<b>Conclusion</b>	<p>It is being confirmed in the PoA-DD that the CPAs described under this generic CPA will be grid connected. The range of the age and average lifetime of main equipment were also mentioned and were based on manufacturer's specification and industry standards.</p> <p>Information on specifications of installed capacities and load factors<sup>/09/</sup> in accordance with installed location which will be checked against manufacturer's specifications was included as required by PS for PoA.</p> <p>All monitoring equipment to be applied in the CPAs are duly mentioned in the PoA-DD</p> <p>It can be concluded that the projects refer to greenfield solar power plants and therefore, no plants will have been placed prior the installation of each CPA in the specific location.</p> <p>Baseline scenario is being stated in the section as per applied methodology AMS-I.D as being:</p> <p><i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid".</i></p> <p>It is important to state that the information contained in this section is only estimative as they do not correspond to specific case CPAs. Specific information will be given in the CPA-DDs.</p> <p>The purpose and general description of generic CPA was outlined in the PoA-DD. The description is accurate, complete and provides an understanding of the Generic CPA and it is in accordance with requirements of applied methodology.</p>

## D.5.2. Selection of methodologies and standardized baselines

### D.5.2.1. Deviation from methodologies and/or methodological tools

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no deviation from methodology is expected.

### D.5.2.2. Clarification on applicability of methodology, tool and/or standardized baseline

<b>Means of validation</b>	Not applied
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<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no clarification on applicability of methodology to the proposed PoA has been issue.

### D.5.3. Application of methodologies and standardized baselines

### D.5.3.1. General

<b>Means of validation</b>	<p>The generic CPA consists in installation of Solar Photovoltaic greenfield power plants.</p> <p>The CPA applied the following large scale consolidated methodology:</p> <ul style="list-style-type: none"> <li>- AMS-I.D - Grid connected renewable electricity generation - version 18.0</li> </ul> <p>Moreover, the following tools are being applied:</p> <ul style="list-style-type: none"> <li>- TOOL07: Tool to calculate emission factor for an electricity system" (version 7.0)</li> <li>- TOOL21: Demonstration of additionality of small-scale project activities (Version 13.1)</li> <li>- TOOL32: Positive lists of technologies" (Version 2.0)</li> </ul> <p>All applicability conditions of the applied methodology and applied tools are met:</p> <table border="1"> <thead> <tr> <th>Applicability Criteria – AMS-I.D – v. 18.0</th><th>Assessment</th></tr> </thead> <tbody> <tr> <td>           a) Install a Greenfield power plant;            b) Involve a capacity addition to (an) existing plant(s);            c) Involve a retrofit of (an) existing operating plants/units;            d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or            e) Involve a replacement of (an) existing plant(s)/unit(s).         </td><td>           The PA complies with the condition (a) as it was a greenfield power plant         </td></tr> <tr> <td>           In case of hydro power plants, one of the following conditions shall apply:            a) The project activity is implemented in existing reservoir, with no change in the volume of the reservoirs; or            b) The project activity is implemented in existing reservoir, where the volume of the reservoir is increased and the power density is greater than 4 W/m2; or            c) The project activity results in new reservoir and the power density, is greater than 4 W/m2;         </td><td>           Not applied for this PA as it corresponds to solar power plant         </td></tr> <tr> <td>           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.         </td><td>           The proposed CPA will have installed capacity up to 15MW.         </td></tr> <tr> <td>           Combined heat and power (co-generation) systems are not eligible under this category.         </td><td>           Not applied for this CPA as it corresponds to solar power plant.         </td></tr> </tbody> </table>	Applicability Criteria – AMS-I.D – v. 18.0	Assessment	a) Install a Greenfield power plant; b) Involve a capacity addition to (an) existing plant(s); c) Involve a retrofit of (an) existing operating plants/units; d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or e) Involve a replacement of (an) existing plant(s)/unit(s).	The PA complies with the condition (a) as it was a greenfield power plant	In case of hydro power plants, one of the following conditions shall apply: a) The project activity is implemented in existing reservoir, with no change in the volume of the reservoirs; or b) The project activity is implemented in existing reservoir, where the volume of the reservoir is increased and the power density is greater than 4 W/m2; or c) The project activity results in new reservoir and the power density, is greater than 4 W/m2;	Not applied for this PA as it corresponds to solar power plant	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.	The proposed CPA will have installed capacity up to 15MW.	Combined heat and power (co-generation) systems are not eligible under this category.	Not applied for this CPA as it corresponds to solar power plant.
Applicability Criteria – AMS-I.D – v. 18.0	Assessment										
a) Install a Greenfield power plant; b) Involve a capacity addition to (an) existing plant(s); c) Involve a retrofit of (an) existing operating plants/units; d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or e) Involve a replacement of (an) existing plant(s)/unit(s).	The PA complies with the condition (a) as it was a greenfield power plant										
In case of hydro power plants, one of the following conditions shall apply: a) The project activity is implemented in existing reservoir, with no change in the volume of the reservoirs; or b) The project activity is implemented in existing reservoir, where the volume of the reservoir is increased and the power density is greater than 4 W/m2; or c) The project activity results in new reservoir and the power density, is greater than 4 W/m2;	Not applied for this PA as it corresponds to solar power plant										
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.	The proposed CPA will have installed capacity up to 15MW.										
Combined heat and power (co-generation) systems are not eligible under this category.	Not applied for this CPA as it corresponds to solar power plant.										

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.	Not applied for this CPA as it corresponds to greenfield solar power plant.
In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement power plant/unit shall not exceed the limit of 15 MW.	Not applied for this CPA as it corresponds to greenfield solar power plant. Therefore, it does not correspond to retrofit, rehabilitation or replacement.
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.	Not applied for this CPA as it corresponds to solar power plant
In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.	Not applied for this CPA as it corresponds to solar power plant

The applicability conditions of all tools are also met as follows

Applicability Criteria – TOOL 07	Assessment
This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This CPA refers to project activity that generates electricity that substitutes grid electricity. Therefore this tool is applicable to this CPA.
Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants.	Only grid power plants will be included. Therefore, this condition is met.
In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country	The electricity system will not be located partially or totally in the Annex I country. Therefore, this condition is met.
Under this tool, the value applied to the CO <sub>2</sub> emission factor of biofuels is zero	CO <sub>2</sub> emission factor for biofuels will be considered equal to zero. Therefore, this condition is met.
Applicability Criteria – TOOL 21	Assessment

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	<p>This tool is applied for small-scale project activities as guidance for determining its additionality.</p>	<p>The CPA corresponds to a small-scale CPA (type I, up to 15MW of installed capacity), and therefore this tool is applicable.</p>				
	<table><tr><th>Applicability Criteria – TOOL 32</th><th>Assessment</th></tr><tr><td><p>When applying baseline and monitoring methodologies that refer to this tool, project activities and PoAs are deemed automatically additional if they exclusively apply the technologies listed under this section and demonstrate that they fulfil the related conditions specified in the same section.</p></td><td><p>At the moment of CPA inclusion, the applicability of this tool will be checked for automatic additionality in accordance with paragraph 17 of TOOL32.</p></td></tr></table>	Applicability Criteria – TOOL 32	Assessment	<p>When applying baseline and monitoring methodologies that refer to this tool, project activities and PoAs are deemed automatically additional if they exclusively apply the technologies listed under this section and demonstrate that they fulfil the related conditions specified in the same section.</p>	<p>At the moment of CPA inclusion, the applicability of this tool will be checked for automatic additionality in accordance with paragraph 17 of TOOL32.</p>	
	Applicability Criteria – TOOL 32	Assessment				
<p>When applying baseline and monitoring methodologies that refer to this tool, project activities and PoAs are deemed automatically additional if they exclusively apply the technologies listed under this section and demonstrate that they fulfil the related conditions specified in the same section.</p>	<p>At the moment of CPA inclusion, the applicability of this tool will be checked for automatic additionality in accordance with paragraph 17 of TOOL32.</p>					
<p>However not all applicability conditions of the methodologies and tools were mentioned in the PoA DD. Thus a CL has been raised.</p>						
<b>Findings</b>	CL 03					
<b>Conclusion</b>	<p>The application of the methodology AMS-I.D in the PoA is allowed by the CDM guidelines as well as the applied tools. No Standardized baselines will be applied. Therefore, this generic CPA is in accordance with CDM regulations. The CME has applied the latest version the methodology and tools informed above.</p> <p>The selected methodologies were correctly applied with respect to project boundary, baseline identification, algorithms and formulae used to determine emission reductions, additionality and monitoring methodology. The selected tools are correctly applied with respect to the determination of the Grid Emission Factor and additionality.</p>					

#### D.5.3.2. Project boundary, sources and GHGs

<b>Means of validation</b>	<p>The project boundary is Chile and or Colombian Territories. It was assessed by means of interviews performed to the CME. Moreover, description of the project provided to the Countries' DNAs and the Letters of Approval issued by each DNA corroborates the information. The location of CPAs will be checked through Technical Feasibility Study of the power plant.</p> <p>As the project consists in installation of PV plants the source of baseline emissions are the emissions avoided by displacement of grid electricity by generation of renewable electricity. Only CO<sub>2</sub> emissions are considered for this generic CPA. No project emissions or Leakage are to be accounted.</p> <p>However, when describing the sources in the PoA-DD table, information is not coherent. Thus a CL has been raised.</p>
<b>Findings</b>	CL 04
<b>Conclusion</b>	The boundary, sources and GHG emissions are well defined in the Generic CPA, according to the applied methodologies and the information is accurate.

#### D.5.3.3. Baseline scenario

<b>Means of validation</b>	<p>As the CPA will consist only in installation of greenfield plants, the baseline scenario <i>"is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid"</i>.</p> <p>As the baseline is given by applied methodology, the application of national and/or sectoral policies for its determination is not applicable. Nevertheless, the proposed CPA will be installed in accordance with all required national/regional regulations. However, not coherent information is being provided in the PoA-DD. Thus a CL has been raised.</p>
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<b>Findings</b>	CL 05
<b>Conclusion</b>	<p>The baseline scenario is giving by the applied methodology and is correctly stated in the generic CPA. Therefore, the baseline scenario is not influenced by E+/E- policies from Host Country as it is determined by the applied methodology, which is entirely in accordance with national/sectoral policies.</p> <p>The baseline scenario is the following: <i>“the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”</i></p> <p>The requirements of instructions for completing the PoA-DD and of the PS for PoA are being followed in the proposed PoA-DD.</p>

#### D.5.3.4. Estimation of emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>According to the applied methodology ACM0002, the baseline emissions are calculated as follows:</p> $BE_y = EG_{PJ,y} \times EF_{grid,CM}$ <p>Where</p> <p>BE<sub>y</sub> = baseline emissions  EG<sub>PJ</sub> = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)  EF<sub>Grid,CM</sub> = Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (t CO2/MWh)</p> $ER = BE - PE - LE$ <p>Project emissions (PE) and Leakage emissions (LE) are equal to zero to this CPA.</p> <p>For the determination of grid emission factor calculation, the TOOL07 will be used for each CPA. The EF<sub>OM</sub> and EF<sub>BM</sub> will be determined ex-ante for each CPA and will be kept fixed along the CPA's crediting period, in accordance with paragraphs 42 a) and 72) a) of TOOL07 respectively.</p> <p>Only grid-connected power plants will be included in the determination of Operating margin emission factor.</p> <p>The EF<sub>OM</sub> will be determined either with simple OM method or Simple Adjusted OM method. The choice will be determined at the CPA's inclusion process in accordance with official information available<sup>/15/</sup> at the moment of inclusion and depending on the country which the CPA is being included. The determination of each method will be carried out in accordance with TOOL07, paragraphs 38-40.</p> <p>The EF combined margin will be fixed and determined using the weighted average CM with defined values for W<sub>OM</sub> and W<sub>BM</sub> equal to 0.75 and 0.25 respectively, in accordance with TOOL07 paragraph 86)a).</p> <p>The ER and EF calculations are described in the PoA-DD in accordance with ACM0002 and TOOL07 respectively.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The baseline emissions and the emission reductions are calculated in accordance with applied methodology. The description is correct and accurate in the generic CPA.</p> <p>The EF<sub>OM</sub> will be determined ex-ante for each CPA and will be calculated as per TOOL07. The determination method for EF<sub>OM</sub> will be determined at the CPA's inclusion based on the information available for each country at this moment. The EF<sub>BM</sub> will be determined ex-ante using the latest available information at the moment of CPA inclusion. All options used for determining the EF<sub>grid</sub> were provided in the generic CPA-DD in accordance with requirements of TOOL07.</p> <p>The assumptions are listed in the generic CPA-DD, including their references and sources.</p> <p>The sources are correctly quoted and interpreted in the generic CPA.</p> <p>Estimated values will be applied in the specific case CPA-DD.</p>

	<p>The equations applied have been compared to the applied methodology and tools in order to verify its accuracy and were considered valid by the validation team. Moreover, it is confirmed that they can be replicated in the specific case CPA. No sampling will be carried out for determining the monitored parameters during the verification of the included CPA.</p> <p>All formulae to be applied in the ER calculations are duly explained in the PoA-DD. Ex ante estimations will be demonstrated at each specific case CPAs. The calculation demonstrated in the PoA-DD is correct and accurate.</p>
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#### D.5.3.5. Monitoring plan

<b>Means of validation</b>	<p>The description of the monitoring plan was assessed based on the information provided in the generic CPA-DD, compared with required information from applied methodologies and tools. The parameters defined in the monitoring plan and used to calculate the Baseline emissions are the following:</p> <p><u>Fixed parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EF_{grid,y}</math>: Combined margin CO2 emission factor for grid connected power generation in year y calculated using the applied version of "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO2/MWh).</b> This parameter will be calculated using the parameters <math>EF_{OM}</math> and <math>EF_{BM}</math> determined ex-ante as per requirements of TOOL07. The determination methods were all defined in the generic CPA-DD. This parameter will be determined at the specific case CPA inclusion process and will remain fixed for the whole CP, being consistent with all applied electricity systems, as required by TOOL07 paragraphs 99-101.</li> </ul> <p><u>Monitoring parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EG_{PJ}</math> = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.</b> This parameter will be measured by electricity meters installed in the connection point to the grid. In case bidirectional electricity meters are not used, the parameter will be calculated as the difference between (a) the quantity of electricity supplied by the project plant/unit to the grid; and (b) the quantity of electricity the project plant/unit from the grid electricity. The electricity meters will be verified/calibrated as per national regulations. Data will be cross checked with public official information<sup>/15/</sup>, or electricity sales/invoices, as applicable. The value applied for validation process (estimated value ex-ante) will be obtained by multiplying the Plant capacity (MW) x Plant Load Factor x 24 x 365.</li> </ul> <p>Nevertheless, in the PoA-DD, not correct reference to the methods for determining the <math>EF_{grid}</math> has been given. Therefore, a CL has been raised.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The monitoring plan is duly described in the generic CPA. Moreover, the monitoring plan described in the PoA-DD duly details the following elements of this plan:</p> <ul style="list-style-type: none"> <li>- Data metering and recording</li> <li>- Management structure and responsibilities</li> <li>- Policies for oversight and accountability of monitoring activities</li> <li>- Quality assurance and quality control</li> <li>- Training and monitoring personnel</li> </ul> <p>No sampling will be used for determining the monitored parameters. The estimated method used for each parameter is considered correct and accurate by the validation team.</p> <p>The monitoring plan is complete and duly described in the PoA in accordance with PS for PoA. The validation team compared the provided monitoring plan with requirements of applied methodologies and tools and verified that it is feasible within the project design.</p> <p>All fixed and monitored parameters are determined in accordance with requirements of applicable methodology and tools.</p> <p>The CME has demonstrated ability to implement the provided monitoring plan.</p>

**D.5.4. Crediting period type and duration**

<b>Means of validation</b>	As well as the PoA which this CPA is attached to, the crediting period type of this CPA is renewable and its duration is 3 x 7 years and 0 months.
<b>Findings</b>	N/A
<b>Conclusion</b>	The crediting period type and duration of this CPA is in compliance with the proposed PoA to which this CPA is attached.

**D.5.5. Eligibility criteria for inclusion of CPAs**

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	The geographical boundary of this CPA is all the Chilean or Colombian territory as per definition in the proposed PoA. The validation of this criteria will be made by checking the geographical coordinates of the project in the respective Technical Feasibility Study	CAR 3	It is clear in the PoA-DD that this PoA will only accept CPAs included in the Chilean or Colombian territories. Moreover, it is defined in the PoA-DD which are the documents that will be used for confirming this information.
2.	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	A declaration of unique identification will be stated by the CME in the CPA DD when including the CPA. The information will also be verified by DOE.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
3.	Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	Every new CPA to be included in the PoA will be crosschecked within data bases of CDM projects in order to prove their authenticity. A declaration from CPA implementer will be provided to validation team ensuring this condition.	N/A	The information is duly provided in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
4.	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	Only greenfield solar photovoltaic power plants will be allowed under this PoA. The plants will have installed capacity up to 15MW. of the main technical parameters were provided in the generic CPA as required by PS para 124)d). Nevertheless,	CAR 3	The information is duly described in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		the correct figures will be provided at the specific case CPA. The Technical Supplier Offer or the Technical Feasibility Study will be used for attesting the installed technology.		
5.	Conditions to check the start date of the CPA through documentary evidence;	The CPA start date must be after 03/02/2020, which is the start date of the PoA. When including the CPA, the CME is required to inform the 1st Contract of the construction or the main equipment or facilities and to provide evidence.	CAR 3	It is duly described in the PoA-DD that only CPAs with starting date after the PoA-Start date will be eligible for this PoA. Moreover, the required evidence for this confirmation is duly described in the PoA-DD and considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
6.	Applicability conditions of the methodology and standardized baseline	The applicability conditions of the applied methodology will be checked when including a CPA. CPA –DD will be checked and compared to Technical Supplier Offer and the Technical Feasibility Study, in order to evidence the information	CAR 3	The applicability conditions of the applied methodology and tools are all cited in the generic CPA and will be assessed at the time of Specific case CPA inclusion. It is duly defined in the PoA-DD which are the evidences that will be used for attest the compliance of the CPA with mentioned documents.
7.	The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality	CPA will be additional as it fulfils the requirements of the TOOL 21 and TOOL 32 (positive list of technologies)  This project is considered authentic additional as the solar photovoltaic technology is included in the positive list for additionality of small scale CPAs as per	CAR 3	The section K of the generic CPA details the approach for determining additionality when TOOL32 is applied. The conditions for its applicability are mentioned in the section K of the PoA-DD under Additionality section.  The evidences required, described in

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		paragraph 17 of the TOOL32. Therefore, at the moment of CPA inclusion, the technical description and/or feasibility study of CPA will be checked in order to confirm the additionality condition.		the generic CPA are considered sufficient by the verification team to comply with this criteria
8.	Conditions to ensure the compliance with other requirements of the applied methodologies;	Only greenfield solar Photovoltaic power plants are allowed under this CPA, connected to the national grid, which comply with national/regional regulations and applicability conditions of AMS-I.D and applied tools. The applicability conditions of methodology and tools were already assessed in item 6 of this table.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
9.	The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis	The local stakeholder consultation will be carried out at CPA level as part of the environmental licensing. Moreover, environmental impact analysis will be carried out also at CPA level as per requirements of national/local legislation. Evidences of Local stakeholder consultation and EIA will be assessed during the CPA inclusion, such as Minutes, stakeholder consultation reports, EIA, etc. will be provided.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.
10.	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	The CME check the information regarding public funding from Annex I party and if any, confirm that it does not result in diversion of official development assistance. The Affidavit on No public	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		Funding from Annex I party will be provided as evidence.		
11.	Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)	The included CPAs will consist in installation of solar photovoltaic power plants connected to the grid. Technical Supplier Offer and the Technical Feasibility Study will be used as evidence of this criteria.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
12.	Where applicable, the conditions related to sampling requirements for the PoA in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities”;	No sampling will be applied to the CPA.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team.
13.	Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA	It was verified that in the PoA-DD it is defined that the installed capacity will not overcome 15 MW, therefore, remaining under small-scale threshold. The Technical Supplier Offer and the Technical Feasibility Study will be used as evidence for this condition.	CAR 3	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.
14.	Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories	The PoA-DD states that the project will not be a debundled CPA and for that, the requirements from TOOL20, paragraph 15 will be taken into account. As evidence, a statement from CME informing this condition.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.

As not all eligibility criteria has been taken into account and not all evidences were mentioned, a CAR has been raised.

Refer to CAR 3

#### Conclusion:

The eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the “CDM project standard for programmes of activities.

All eligibility criterion required in the PoA-DD for inclusion of each CPA, including the conditions that corresponding CPAs, meet the requirement pertaining to the demonstration of additionality. Moreover, all these criteria are defined in accordance with the applicable requirements in the “CDM project standard for programme of activities” and could be verifiable during the CPA inclusion process. Moreover, the criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.

## D.6. Generic component project activities (CPA 05)

### D.6.1. General description of generic CPA

<b>Means of validation</b>	<p>The name and reference number of this generic CPA is “Small Scale Generic CPA 05 – CPA # 5”.</p> <p>This generic CPA cover installation of small-scale Greenfield Hydro Power Plants in the Colombian or Chilean Territory which will have its electricity dispatched to the National Grid of each country. The Purpose of the generic CPA is provide renewable energy to the national grid of each country and reduce the share of fossil-fuel power plants in the electricity matrix.</p> <p>This project is Type I project as per Project Standard.</p> <p>The plants will be hydro power plant type, grid-connected, and will have installed capacity smaller or equal to 15MW.</p> <p>The main equipments to be installed will turbines, generators, transformers and electric meters. The exact facilities will be determined at each specific CPA. The capacity factor will vary from 15 to 95%<sup>/09/</sup> depending on the country and location which they will be installed. These values are standard in the market for this type of technology.</p> <p>The lifetime of main equipment will be at least 20 years and will be checked against manufacturer’s specification and industry standards<sup>/10/</sup>.</p> <p>Electricity meters installed at the grid interface will be responsible for measuring the electricity dispatched to the grid.</p> <p>The additionality of the projects under this generic CPA will be assessed in accordance with TOOL21.</p> <p>However, the generic CPAs were not described in accordance with CDM rules and regulations. Moreover, not all required information was included in the PoA-DD, thus a the CARs below have been raised.</p>
<b>Findings</b>	<p>CAR 1</p> <p>CAR 2</p>

<b>Conclusion</b>	<p>It is being confirmed in the PoA-DD that the CPAs described under this generic CPA will be grid connected. The range of the age and average lifetime of main equipment were also mentioned and will be based on manufacturer's specification and industry standards for each specific case CPA.</p> <p>Information on specifications of range of installed capacities and load factors<sup>/09/, /10/</sup> in accordance with installed location and which will be checked against manufacturer's specifications was included as required by PS for PoA.</p> <p>All monitoring equipment to be applied in the CPAs are duly mentioned in the PoA-DD</p> <p>It can be concluded that the projects refer to greenfield hydro power plants and therefore, no plants will have been placed prior the installation of each CPA in the specific location.</p> <p>Baseline scenario is being stated in the section as per applied methodology AMS-I.D as being:</p> <p><i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid".</i></p> <p>It is important to state that the information contained in this section is only estimative as they do not correspond to specific case CPAs. Specific information will be given in the CPA-DDs.</p> <p>The purpose and general description of generic CPA was outlined in the PoA-DD. The description is accurate, complete and provides an understanding of the Generic CPA and it is in accordance with requirements of applied methodology.</p>
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## D.6.2. Selection of methodologies and standardized baselines

### D.6.2.1. Deviation from methodologies and/or methodological tools

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no deviation from methodology is expected.

### D.6.2.2. Clarification on applicability of methodology, tool and/or standardized baseline

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no clarification on applicability of methodology to the proposed PoA has been issue.

## D.6.3. Application of methodologies and standardized baselines

### D.6.3.1. General

<b>Means of validation</b>	<p>This generic CPA consists in installation of Solar Photovoltaic greenfield power plants.</p> <p>The CPA applied the following large scale consolidated methodology:</p> <ul style="list-style-type: none"> <li>- AMS-I.D - Grid connected renewable electricity generation - version 18.0</li> </ul> <p>Moreover, the following tools are being applied:</p> <ul style="list-style-type: none"> <li>- TOOL07: Tool to calculate emission factor for an electricity system" (version 7.0)</li> <li>- TOOL21: Demonstration of additionality of small-scale project activities (Version 13.1)</li> </ul> <p>In addition, the methodology ACM0002: Grid-connected electricity generation from renewable sources --- Version 20.0</p>
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All applicability conditions of the applied methodology and applied tools are met:

Applicability Criteria – AMS-I.D – v. 18.0	Assessment
f) Install a Greenfield power plant; g) Involve a capacity addition to (an) existing plant(s); h) Involve a retrofit of (an) existing operating plants/units; i) Involve a rehabilitation of (an) existing plant(s)/unit(s); or j) Involve a replacement of (an) existing plant(s)/unit(s).	The PA complies with the condition (a) as it was a greenfield power plant
In case of hydro power plants, one of the following conditions shall apply: d) The project activity is implemented in existing reservoir, with no change in the volume of the reservoirs; or e) The project activity is implemented in existing reservoir, where the volume of the reservoir is increased and the power density is greater than 4 W/m <sup>2</sup> ; or f) The project activity results in new reservoir and the power density, is greater than 4 W/m <sup>2</sup> ;	This criterion is applied as this CPA refers to a small scale hydro power plant. The power density will be determined at the specific case CPA.
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.	The proposed CPA will have installed capacity up to 15MW.
Combined heat and power (co-generation) systems are not eligible under this category.	Not applied for this CPA as it corresponds to hydro power plant.
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.	Not applied for this CPA as it corresponds to greenfield hydro power plant.
In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement power plant/unit shall not exceed the limit of 15 MW.	Not applied for this CPA as it corresponds to greenfield hydro power plant. Therefore, it does not correspond to retrofit, rehabilitation or replacement.
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-	Not applied for this CPA as it corresponds to hydro power plant.

	I.C.: Thermal energy production with or without electricity" shall be explored.	
	In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.	Not applied for this CPA as it corresponds to hydro power plant
	The applicability conditions of all tools are also met as follows	
	<b>Applicability Criteria – TOOL 07</b>	<b>Assessment</b>
	This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This CPA refers to project activity that generates electricity that substitutes grid electricity. Therefore this tool is applicable to this CPA.
	Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants.	Only grid power plants will be included. Therefore, this condition is met.
	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country	The electricity system will not be located partially or totally in the Annex I country. Therefore, this condition is met.
	Under this tool, the value applied to the CO2 emission factor of biofuels is zero	CO2 emission factor for biofuels will be considered equal to zero. Therefore, this condition is met.
	<b>Applicability Criteria – TOOL 21</b>	<b>Assessment</b>
	This tool is applied for small-scale project activities as guidance for determining its additionality.	The CPA corresponds to a small-scale CPA (type I, up to 15MW of installed capacity), and therefore this tool is applicable.
	However not all applicability conditions of the methodologies and tools were mentioned in the PoA DD. Thus a CL has been raised.	
<b>Findings</b>	CL 03	
<b>Conclusion</b>	<p>The application of the methodology AMS-I.D in the PoA is allowed by the CDM guidelines as well as the applied tools. No Standardized baselines will be applied. Therefore, this generic CPA is in accordance with CDM regulations. The CME has applied the latest version the methodology and tools informed above.</p> <p>The selected methodologies were correctly applied with respect to project boundary, baseline identification, algorithms and formulae used to determine emission reductions, additionality and monitoring methodology. The selected tools are correctly applied with respect to the determination of the Grid Emission Factor and additionality.</p>	

**D.6.3.2. Project boundary, sources and GHGs**

<b>Means of validation</b>	<p>The project boundary is Chile and/or Colombian Territories. It was assessed by means of interviews performed to the CME. Moreover, description of the project provided to the Countries' DNAs and the Letters of Approval issued by each DNA corroborates the information. The location of CPAs will be checked through Technical Feasibility Study of the power plant.</p> <p>As the project consists in installation of Hydro power plants the source of baseline emissions are the emissions avoided by displacement of grid electricity by generation of renewable electricity. Project emissions will be determined in accordance with ACM0002 (called by applied methodology AMS.I-D) based on its power density due to CH<sub>4</sub> emissions from reservoir. Leakage emissions are not accounted for this project type.</p> <p>However, when describing the sources in the PoA-DD table, information is not coherent. Thus a CL has been raised.</p>
<b>Findings</b>	CL 04
<b>Conclusion</b>	The boundary, sources and GHG emissions are well defined in the Generic CPA, according to the applied methodologies and the information is accurate.

**D.6.3.3. Baseline scenario**

<b>Means of validation</b>	<p>As the CPA will consist only in installation of greenfield plants, the baseline scenario <i>"is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid"</i>.</p> <p>As the baseline is given by applied methodology, the application of national and/or sectoral policies for its determination is not applicable. Nevertheless, the proposed CPA will be installed in accordance with all required national/regional regulations. However, not coherent information is being provided in the PoA-DD. Thus a CL has been raised.</p>
<b>Findings</b>	CL 05
<b>Conclusion</b>	<p>The baseline scenario is given by the applied methodology and is correctly stated in the generic CPA. Therefore, the baseline scenario is not influenced by E+/E- policies from Host Country as it is determined by the applied methodology, which is entirely in accordance with national/sectoral policies.</p> <p>The baseline scenario is the following: <i>"the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid"</i></p> <p>The requirements of instructions for completing the PoA-DD and of the PS for PoA are being followed in the proposed PoA-DD.</p>

**D.6.3.4. Estimation of emission reductions or net anthropogenic removals**

<b>Means of validation</b>	<p>According to the applied methodology AMS-I.D, the baseline emissions are calculated as follows:</p> $BE_y = EG_{PJ,y} \times EF_{grid,CM}$ <p>Where</p> <p>BE<sub>y</sub> = baseline emissions</p> <p>EG<sub>PJ</sub> = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)</p> <p>EF<sub>Grid,CM</sub> = Combined margin CO<sub>2</sub> emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (t CO<sub>2</sub>/MWh)</p> $ER = BE - PE - LE$ <p>Project emissions (PE) will be determined based on ACM0002. According to this methodology, project emissions are to be calculated if Power Density of the reservoir is greater than 4W/m<sup>2</sup> and less or equal than 10W/m<sup>2</sup>. The power density is calculated as following:</p>
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	$PD = \frac{Cap_{pj} - Cap_{bl}}{Apj - Abl}$ <p>Where  PD = power density  Cap<sub>pj</sub> = Installed Capacity of the hydro power plant after the implementation of the project activity  Cap<sub>bl</sub> = Installed Capacity of the hydro power plant before the implementation of the project activity  Ap<sub>j</sub>: area of full reservoir after the implementation of project activity  Abl: area of reservoir before the project activity implementation.</p> <p>In the case of this project activity the calculated PD is between 4w/m<sup>2</sup> and 10 W/m<sup>2</sup> the Project Emissions for reservoir shall be determined using the following equation:</p> $PE_{HPy} = \frac{EF_{res} \times TEG_y}{1000}$ <p>Where:  PE<sub>HP,y</sub>: Power emissions from water reservoirs  EF<sub>res</sub>: Default emission factor for emissions from reservoirs of hydro power plants in year y  TEG<sub>y</sub>: Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y.</p> <p>Leakage emissions (LE) is equal to zero for this CPA.</p> <p>For the determination of grid emission factor calculation, the TOOL07 will be used for each CPA. The EF<sub>OM</sub> and EF<sub>BM</sub> will be determined ex-ante for each CPA and will be kept fixed along the CPA's crediting period, in accordance with paragraphs 42 a) and 72) a) of TOOL07 respectively.</p> <p>Only grid-connected power plants will be included in the determination of Operating margin emission factor.</p> <p>The EF<sub>OM</sub> will be determined either with simple OM method or Simple Adjusted OM method. The choice will be determined at the CPA's inclusion process in accordance with official information available<sup>16/</sup> at the moment of inclusion and depending on the country which the CPA is being included. The determination of each method will be carried out in accordance with TOOL07, paragraphs 38-40.</p> <p>The EF combined margin will be fixed and determined using the weighted average CM with defined values for W<sub>OM</sub> and W<sub>BM</sub> determined in accordance with TOOL07 paragraph 86)b).</p> <p>The ER and EF calculations are described in the PoA-DD in accordance with AMS-I.D, ACM0002 and TOOL07.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The baseline emissions, project emissions and the emission reductions are calculated in accordance with applied methodology and referred ACM0002.</p> <p>The description is correct and accurate in the generic CPA.</p> <p>The EF<sub>OM</sub> will be determined ex-ante for each CPA and will be calculated as per TOOL07. The determination method for EF<sub>OM</sub> will be determined at the CPA's inclusion based on the information available for each country at this moment. The EF<sub>BM</sub> will be determined ex-ante using the latest available information at the moment of CPA inclusion. All options used for determining the EF<sub>grid</sub> were provided in the generic CPA-DD in accordance with requirements of TOOL07.</p> <p>The assumptions are listed in the generic CPA-DD, including their references and sources.</p>

	<p>The sources are correctly quoted and interpreted in the generic CPA.</p> <p>Estimated values will be applied in the specific case CPA-DD.</p> <p>The equations applied have been compared to the applied methodology and tools in order to verify its accuracy and were considered valid by the validation team. Moreover, it is confirmed that they can be replicated in the specific case CPA.</p> <p>No sampling will be carried out for determining the monitored parameters during the verification of the included CPA.</p> <p>All formulae to be applied in the ER calculations are duly explained in the PoA-DD. Ex ante estimations will be demonstrated at each specific case CPAs.</p> <p>The calculation demonstrated in the PoA-DD is correct and accurate.</p>
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#### D.6.3.5. Monitoring plan

Means of validation	<p>The description of the monitoring plan was assessed based on the information provided in the generic CPA-DD, compared with required information from applied methodologies and tools. The parameters defined in the monitoring plan and used to calculate the Baseline emissions are the following:</p> <p><u>Fixed parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EF_{grid,y}</math>: Combined margin CO2 emission factor for grid connected power generation in year y calculated using the applied version of "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO2/MWh).</b> This parameter will be calculated using the parameters <math>EF_{OM}</math> and <math>EF_{BM}</math> determined ex-ante as per requirements of TOOL07. The determination methods were all defined in the generic CPA-DD. This parameter will be determined at the specific case CPA inclusion process and will remain fixed for the whole CP, being consistent with all applied electricity systems, as required by TOOL07 paragraphs 99-101.</li> <li>- <b><math>Cap_{BL}</math>: Installed capacity of the hydro power plant before the implementation of the project activity. For new hydro power plants, this value is zero.</b> This value will be applied as this generic CPAs only allow greenfield power plants.</li> <li>- <b><math>A_{BL}</math>: Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m2). For new reservoirs, this value is zero.</b> This value will be determined at the inclusion process of the specific case CPA, based on the reservoir characteristics (new or existing).</li> <li>- <b><math>EF_{RES}</math></b> (Default emission factor for emissions from reservoirs). This value is defined in the methodology ACM0002 and will remain fixed for the whole CP of the specific CPA.</li> </ul> <p><u>Monitoring parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EG_{PJ}</math> = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.</b> This parameter will be measured by electricity meters installed in the connection point to the grid. In case bidirectional electricity meters are not used, the parameter will be calculated as the as difference between (a) the quantity of electricity supplied by the project plant/unit to the grid; and (b) the quantity of electricity the project plant/unit from the grid electricity. The electricity meters will be verified/calibrated as per national regulations. Data will be cross checked with public official information<sup>16/</sup>, or electricity sales/invoices, as applicable. The value applied for validation process (estimated value ex-ante) will be obtained by multiplying the Plant capacity (MW) x Plant Load Factor x 24 x 365.</li> </ul>
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	<ul style="list-style-type: none"> <li>- <b>TEG<sub>y</sub> = Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y.</b> This parameter will be measured by electricity meters installed in and will include the electricity used for internal loads. The electricity meters will be verified/calibrated as per national regulations. Data will be cross checked with public official information<sup>16/</sup>, or electricity sales/invoices, as applicable. The value applied for validation process (estimated value ex-ante) will be determined for each specific case CPA.</li> <li>- <b>Cap<sub>PJ</sub>: Installed capacity of the hydro power plant after the implementation of the project activity.</b> This parameter will be determined at the start of CP for each specific case CPA.</li> <li>- <b>AP<sub>J</sub>: Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full.</b> This parameter will be determined once at the beginning of CP for the specific case CPA.</li> </ul> <p>Nevertheless, in the PoA-DD, not correct reference to the methods for determining the EF<sub>grid</sub> has been given. Therefore, a CL has been raised.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The monitoring plan is duly described in the generic CPA. Moreover, the monitoring plan described in the PoA-DD duly details the following elements of this plan:</p> <ul style="list-style-type: none"> <li>- Data metering and recording</li> <li>- Management structure and responsibilities</li> <li>- Policies for over sighting and accountability of monitoring activities</li> <li>- Quality assurance and quality control</li> <li>- Training and monitoring personnel</li> </ul> <p>No sampling will be used for determining the monitored parameters. The estimated method used for each parameter is considered correct and accurate by the validation team. The monitoring plan is complete and duly described in the PoA in accordance with PS for PoA. The validation team compared the provided monitoring plan with requirements of applied methodologies and tools and verified that it is feasible within the project design. All fixed and monitored parameters are determined in accordance with requirements of applicable methodology and tools. The CME has demonstrated ability to implements the provided monitoring plan.</p>

#### D.6.4. Crediting period type and duration

<b>Means of validation</b>	As well as the PoA which this CPA is attached to, the crediting period type of this CPA is renewable and its duration is 3 x 7 years and 0 months.
<b>Findings</b>	N/A
<b>Conclusion</b>	The crediting period type and duration of this CPA is in compliance with the proposed PoA to which this CPA is attached.

#### D.6.5. Eligibility criteria for inclusion of CPAs

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	The geographical boundary of this CPA is all the Chilean or Colombian territory as per definition in the proposed PoA. The validation of this criteria will be made by checking the geographical coordinates of the	CAR 3	It is clear in the PoA-DD that this PoA will only accept CPAs included in the Chilean or Colombian territories. Moreover, it is defined in the PoA-DD which are the documents that will be used for confirming this information.

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		project in the respective Technical Feasibility Study		
2.	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	A declaration of unique identification will be stated by the CME in the CPA DD when including the CPA. The information will also be verified by DOE.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
3.	Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	Every new CPA to be included in the PoA will be crosschecked within data bases of CDM projects in order to prove their authenticity. A declaration from CPA implementer will be provided to validation team ensuring this condition.	N/A	The information is duly provided in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
4.	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	Only greenfield Hydro power plants will be allowed under this PoA. The plants will have installed capacity up to 15MW. Range of technical parameters were provided in the generic CPA as required by PS for POA. Nevertheless, the correct figures will be provided at the specific case CPA. The Technical Supplier Offer or the Technical Feasibility Study will be used for attesting the installed technology.	CAR 3	The information is duly described in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
5.	Conditions to check the start date of the CPA through documentary evidence;	The CPA start date must be after 03/02/2020, which is the start date of the PoA. When including the CPA, the CME is required to inform the 1st Contract of the construction or the main equipment or	CAR 3	It is duly described in the PoA-DD that only CPAs with starting date after the PoA-Start date will be eligible for this PoA. Moreover, the required evidence for this confirmation is duly described in the PoA-DD and considered

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		facilities and to provide evidence.		sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
6.	Applicability conditions of the methodology and standardized baseline	The applicability conditions of the applied methodology will be checked when including a CPA. CPA –DD will be checked and compared to Technical Supplier Offer and the Technical Feasibility Study, in order to evidence the information	CAR 3	The applicability conditions of the applied methodology and tools are all cited in the generic CPA and will be assessed at the time of Specific case CPA inclusion. It is duly defined in the PoA-DD which are the evidences that will be used for attest the compliance of the CPA with mentioned documents.
7.	The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality	<p>CPA will be additional if it fulfils the requirements of the TOOL21 - “Demonstration of additionality of small-scale project activities”</p> <p>The investment barrier will be applied for determining the additionality. The investment analysis of the CPA is detailed in the section eligibility criteria of the generic CPA. Investment analysis will be carried out and the following parameters will be used:</p> <ul style="list-style-type: none"> <li>- Electricity Generation,</li> <li>- Average Sales Price</li> <li>- Annual Income</li> <li>- Total Investment</li> <li>- Average Annual Operational Costs</li> <li>- Load factor</li> <li>- Project duration</li> <li>- Taxes</li> <li>- Fair value</li> </ul>	CAR 3	<p>The section K of the generic CPA details the approach for determining additionality when TOOL21 is applied as well as the analysis method and the financial indicator. Moreover, all parameters used in the investment analysis are mentioned in the section K of the PoA-DD under Additionality section.</p> <p>The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria</p>

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		<p>The input parameters were defined as required by PS for PoA para 124)g)iv).</p> <p>Benchmark analysis will be used as analysis method and the project IRR will be chosen as financial indicator as per latest available TOOL27.</p> <p>The evidences provided for the investment analysis will be the Technical Supplier Offer, the Technical Feasibility Study, Investment term sheet, Financial analysis and official taxes for each country.</p> <p>In the CPA inclusion, the additionality will have to be validated by the DOE.</p>		
8.	Conditions to ensure the compliance with other requirements of the applied methodologies;	<p>Only greenfield hydro power plants are allowed under this CPA, connected to the national grid, which comply with national/regional regulations and applicability conditions of AMS-I.D and applied tools.</p> <p>The applicability conditions of methodology and tools were already assessed in item 6 of this table.</p>	N/A	<p>The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria</p>
9.	The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis	<p>The local stakeholder consultation will be carried out at CPA level as part of the environmental licensing. Moreover, environmental impact analysis will be carried out also at CPA level as per requirements of national/local legislation. Evidences of Local stakeholder consultation and EIA</p>	N/A	<p>The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.</p>

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		will be assessed during the CPA inclusion, such as Minutes, stakeholder consultation reports, EIA, etc. will be provided.		
10.	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	The CME check the information regarding public funding from Annex I party and if any, confirm that it does not result in diversion of official development assistance. The Affidavit on No public Funding from Annex I party will be provided as evidence.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
11.	Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)	The included CPAs will consist in installation of Hydro power plants connected to the grid. Technical Supplier Offer and the Technical Feasibility Study will be used as evidence of this criteria.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
12.	Where applicable, the conditions related to sampling requirements for the PoA in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities";	No sampling will be applied to the CPA.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team.
13.	Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories	The PoA-DD states that the project will not be a debundled CPA and for that, the requirements from TOOL20, paragraph 15 will be taken into account. As evidence, a statement from CME informing this condition.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.
14.	Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those	It was verified that in the PoA-DD it is defined that the installed capacity will not overcome 15 MW, therefore, remaining under small-scale threshold. The Technical Supplier	CAR 3	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
	thresholds throughout the crediting period of the CPA	Offer and the Technical Feasibility Study will be used as evidence for this condition.		

As not all eligibility criteria has been taken into account and not all evidences were mentioned, a CAR has been raised.

Refer to CAR 3

#### Conclusion:

The eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the “CDM project standard for programmes of activities.

All eligibility criterion required in the PoA-DD for inclusion of each CPA, including the conditions that corresponding CPAs, meet the requirement pertaining to the demonstration of additionality. Moreover, all these criteria are defined in accordance with the applicable requirements in the “CDM project standard for programme of activities” and could be verifiable during the CPA inclusion process. Moreover, the criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.

## **D.7. Generic component project activities (CPA 06)**

### **D.7.1. General description of generic CPA**

<b>Means of validation</b>	<p>The name and reference number of this generic CPA is “Micro Scale Generic CPA 06 – CPA # 6”.</p> <p>This generic CPA cover installation of micro-scale Greenfield Solar Photovoltaic Plants in the Colombian or Chilean Territory which will have its electricity provided to carbon intensive mini-grid . The Purpose of the generic CPA is provide renewable energy to implementation carbon intensive minigrid as stated above.</p> <p>This project is Type I project as per Project Standard.</p> <p>The plants will be solar photovoltaic type, not connected to national/regional grids, and will have installed capacity smaller or equal to 5MW.</p> <p>The main equipments to be installed will be solar panels, inverters, transformers and electric meters. The exact facilities will be determined at each specific CPA. The capacity factor will be at least 15 %<sup>/09/</sup> depending on the country and location which they will be installed. These values are standard in the market for this type of technology.</p> <p>The lifetime of main equipment will be at least 20 years which will be checked against manufacturer’s specification and industry standards<sup>/10/</sup>.</p> <p>Electricity meters installed at the grid interface will be responsible for measuring the electricity dispatched to the grid.</p> <p>The projects under this generic CPA will be automatically additional according to TOOL19 and TOOL32.</p> <p>However, the generic CPAs were not described in accordance with CDM rules and regulations. Moreover, not all required information was included in the PoA-DD, thus a the CARs below have been raised.</p>
<b>Findings</b>	<p>CAR 1</p> <p>CAR 2</p>

<b>Conclusion</b>	<p>It is being confirmed in the PoA-DD that the CPAs described under this generic CPA will be connected to carbon intensive minigrid. The range of the age and average lifetime of main equipment were also mentioned and will be checked against manufacturer's specification and industry standards for each specific case CPA. Information on specifications of range of installed capacities and load factors<sup>/09/</sup> in accordance with installed location and which will be checked against manufacturer's specifications was included as required by PS for PoA. All monitoring equipment to be applied in the CPAs are duly mentioned in the PoA-DD</p> <p>It can be concluded that the projects refer to greenfield solar power plants and therefore, no plants will have been placed prior the installation of each CPA in the specific location.</p> <p>Baseline scenario are not being directly referred to in the applied methodology AMS-I.F. Nevertheless, to be consistent with other similar methodologies (such as AMS-I.D and ACM0002), the baseline scenario of the methodology is:  <i>"The baseline scenario is that the electricity delivered to the isolated mini-grid by the project activity would have otherwise been generated by the operation of diesel/fuel oil generator power plants that supply the isolated grid".</i></p> <p>The electricity displacement will be determined at the specific case CPA. It is important to state that the information contained in this section is only estimative as they do not correspond to specific case CPAs. Specific information will be given in the CPA-DDs.</p> <p>The purpose and general description of generic CPA was outlined in the PoA-DD. The description is accurate, complete and provides an understanding of the Generic CPA and it is in accordance with requirements of applied methodology.</p>
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## D.7.2. Selection of methodologies and standardized baselines

### D.7.2.1. Deviation from methodologies and/or methodological tools

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no deviation from methodology is expected.

### D.7.2.2. Clarification on applicability of methodology, tool and/or standardized baseline

<b>Means of validation</b>	Not applied
<b>Findings</b>	N/A
<b>Conclusion</b>	Not applied as no clarification on applicability of methodology to the proposed PoA has been issue.

## D.7.3. Application of methodologies and standardized baselines

### D.7.3.1. General

<b>Means of validation</b>	<p>This generic CPA consists in installation of Solar Photovoltaic greenfield power plants.</p> <p>The CPA applied the following large scale consolidated methodology:</p> <ul style="list-style-type: none"> <li>- AMS-I.F - "Renewable electricity generation for captive use and mini-grid" (Version 03.0.0)</li> </ul> <p>Moreover, the following tools are being applied:</p> <ul style="list-style-type: none"> <li>-</li> <li>-</li> <li>- TOOL19: Demonstration of additionality of microscale project activities (Version 09.0)</li> </ul>
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All applicability conditions of the applied methodology and applied tools are met:

Applicability Criteria – AMS-I.F – v. 03.0.0	Assessment
<p>Hydro power plants, one of the following conditions shall apply:</p> <ul style="list-style-type: none"> <li>a) The project activity is implemented in existing reservoir, with no change in the volume of the reservoirs; or</li> <li>b) The project activity is implemented in existing reservoir, where the volume of the reservoir is increased and the power density is greater than 4 W/m<sup>2</sup>; or</li> <li>c) The project activity results in new reservoir and the power density, is greater than 4 W/m<sup>2</sup>;</li> </ul>	<p>Not applied for this PA as it corresponds to solar power plant</p>
<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>	<p>This generic CPA refers to greenfield power plant. Therefore, this criterion is applicable</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>	<p>Not applied for this CPA as it corresponds to greenfield solar power plant.</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>	<p>Not applied for this CPA as it corresponds to greenfield solar power plant. Therefore, it does not correspond to retrofit or replacement.</p>
<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>	<p>The proposed CPA will refer to installation of greenfield solar power plant. Therefore, this criterion is not applicable.</p>
<p>Combined heat and power (co-generation) systems are not eligible under this category.</p>	<p>Not applied for this CPA as it corresponds to solar power plant.</p>
<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>	<p>It will be determined at specific CPA.</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>	<p>Not applied for this CPA as it corresponds to solar power plant</p>

	Applicability Criteria – TOOL 19	Assessment
	This tool is applied for microscale project activities as guidance for determining its additionality.	The CPA corresponds to a microscale CPA (type I, up to 5MW of installed capacity), and therefore this tool is applicable.
	However not all applicability conditions of the methodologies and tools were mentioned in the PoA DD. Thus a CL has been raised.	
<b>Findings</b>	CL 03	
<b>Conclusion</b>	The application of the methodology AMS-I.F in the PoA is allowed by the CDM guidelines as well as the applied tools. No Standardized baselines will be applied. Therefore, this generic CPA is in accordance with CDM regulations. The CME has applied the latest version the methodology and tools informed above. The selected methodologies were correctly applied with respect to project boundary, baseline identification, algorithms and formulae used to determine emission reductions, additionality and monitoring methodology. The mini-grid emission factor will be determined in accordance with applied methodology.	

#### D.7.3.2. Project boundary, sources and GHGs

<b>Means of validation</b>	The project boundary is Chile and/or Colombian Territories. It was assessed by means of interviews performed to the CME. Moreover, description of the project provided to the Countries' DNAs and the Letters of Approval issued by each DNA corroborates the information. The location of CPAs will be checked through Technical Feasibility Study of the power plant. As the project consists in installation of solar PV plants the source of baseline emissions are the emissions avoided by displacement of carbon intensive mini-grid by generation of renewable electricity. Only CO <sub>2</sub> emissions are considered for this generic CPA. No project emissions or Leakage are to be accounted. However, when describing the sources in the PoA-DD table, information is not coherent. Thus a CL has been raised.
<b>Findings</b>	CL 04
<b>Conclusion</b>	The boundary, sources and GHG emissions are well defined in the Generic CPA, according to the applied methodologies and the information is accurate.

#### D.7.3.3. Baseline scenario

<b>Means of validation</b>	As the CPA will consist only in installation of greenfield plants, the baseline scenario <i>"The baseline scenario is that the electricity delivered to the isolated mini-grid by the project activity would have otherwise been generated by the operation of diesel/fuel oil generator power plants that supply the isolated grid."</i> As the baseline is given by applied methodology, the application of national and/or sectoral policies for its determination is not applicable. Nevertheless, the proposed CPA will be installed in accordance with all required national/regional regulations. However, not coherent information is being provided in the PoA-DD. Thus a CL has been raised.
<b>Findings</b>	CL 05
<b>Conclusion</b>	The baseline scenario is given by the applied methodology and is correctly stated in the generic CPA. Therefore, the baseline scenario is not influenced by E+/E- policies from Host Country as it is determined by the applied methodology, which is entirely in accordance with national/sectoral policies. The baseline scenario is the following: <i>"The baseline scenario is that the electricity delivered to the isolated mini-grid by the project activity would have otherwise been generated by the operation of diesel/fuel oil generator power plants that supply the isolated grid"</i>

	The requirements of instructions for completing the PoA-DD and of the PS for PoA are being followed in the proposed PoA-DD.
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#### D.7.3.4. Estimation of emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>According to the applied methodology AMS-I.F, the baseline emissions are calculated as follows:</p> $BE_y = EG_{BL,y} \times EF_{CO2}$ <p>Where</p> <p>BE<sub>y</sub> = baseline emissions  EG<sub>BL</sub> = Quantity of net electricity displaced as a result of the implementation of the CDM project activity in year y (MWh)  EF<sub>CO2,y</sub> = CO<sub>2</sub> emission factor for the grid/minigrid/captive electricity in year y</p> $ER = BE - PE - LE$ <p>Project emissions (PE) and Leakage emissions (LE) are equal to zero to this CPA.</p> <p>For the determination of emission factor, provisions of applied methodology (AMS-I.F and methodology AMS-I.D will be taken into consideration as follows:  The Emission factor will be determined as follows:</p> <ul style="list-style-type: none"> <li>- In case electricity generated by CPA displaces electricity from mini-grid system where all generators use exclusively fuel oil and/or diesel fuel, the parameter will be fixed ex-ante and determined in accordance with paragraph 18 of the methodology AMS-I.F.</li> <li>- In case this paragraph does not apply, the parameter will be calculated yearly as per AMS-I.D as the weighted average emissions (in t CO<sub>2</sub>/MWh) of the current generation mix.</li> </ul> <p>Data from baseline electricity consumption will be provided by CPA implementer as no public data is expected to be available for this type of project.  The ER and EF calculations are described in the PoA-DD in accordance with AMS-I.F and AMS-I.D.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The baseline emissions and the emission reductions are calculated in accordance with applied methodology. The description is correct and accurate in the generic CPA.</p> <p>The assumptions are listed in the generic CPA-DD, including their references and sources.</p> <p>The sources are correctly quoted and interpreted in the generic CPA.</p> <p>Estimated values will be applied in the specific case CPA-DD.</p> <p>The equations applied have been compared to the applied methodology and tools in order to verify its accuracy and were considered valid by the validation team.</p> <p>Moreover, it is confirmed that they can be replicated in the specific case CPA.</p> <p>No sampling will be carried out for determining the monitored parameters during the verification of the included CPA.</p> <p>All formulae to be applied in the ER calculations are duly explained in the PoA-DD.</p> <p>Ex ante estimations will be demonstrated at each specific case CPAs.</p> <p>The calculation demonstrated in the PoA-DD is correct and accurate.</p>

#### D.7.3.5. Monitoring plan

<b>Means of validation</b>	<p>The description of the monitoring plan was assessed based on the information provided in the generic CPA-DD, compared with required information from applied methodologies and tools. The parameters defined in the monitoring plan and used to calculate the Baseline emissions are the following:</p> <p><u>Fixed parameter:</u></p> <ul style="list-style-type: none"> <li>- <b>EF<sub>CO2,y</sub></b>: CO<sub>2</sub> emission factor mini-grid in year y" (t CO<sub>2</sub>/kWh). This parameter will be determined as per applied methodology paragraph 18 and will be kept fixed for the CP. This parameter will be applicable only in case electricity generated by the CPA replaces electricity from a mini-grid system where all</li> </ul>
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	<p>generators use exclusively fuel oil and/or diesel fuel. The determination methods were all defined in the generic CPA-DD.</p> <p><u>Monitoring parameter:</u></p> <ul style="list-style-type: none"> <li>- <b><math>EG_{BL}</math> = Quantity of net electricity displaced as a result of the implementation of the CDM project activity in year y (MWh).</b> This parameter refers to the gross electricity generated minus the auxiliary consumption. This parameter will be continuously measured by calibrated electricity meters. Data will be cross checked with records of sold/purchased electricity, as applicable. The value applied for validation process (estimated value ex-ante) will be obtained by multiplying the Plant capacity (MW) x Plant Load Factor x 24 x 365.</li> <li>- <b><math>EF_{CO_2,y}</math>: Emission factor (t CO<sub>2</sub>/MWh) for a mini-grid system other than described in paragraph 18 of the methodology.</b> This parameter will be determined as per methodology AMS-I.D as the weighted average emissions (in t CO<sub>2</sub>/MWh) of the current generation mix. And it will be monitored yearly. This parameter will only be applied in case paragraph 18 of the AMS-I.F is not applicable. The determination methods were all defined in the generic CPA-DD.</li> </ul> <p>Nevertheless, in the PoA-DD, not correct reference to the methods for determining the <math>EF_{grid}</math> has been given. Therefore, a CL has been raised.</p>
<b>Findings</b>	CL 06
<b>Conclusion</b>	<p>The monitoring plan is duly described in the generic CPA. Moreover, the monitoring plan described in the PoA-DD duly details the following elements of this plan:</p> <ul style="list-style-type: none"> <li>- Data metering and recording</li> <li>- Management structure and responsibilities</li> <li>- Policies for over sighting and accountability of monitoring activities</li> <li>- Quality assurance and quality control</li> <li>- Training and monitoring personnel</li> </ul> <p>No sampling will be used for determining the monitored parameters.</p> <p>The estimated method used for each parameter is considered correct and accurate by the validation team.</p> <p>The monitoring plan is complete and duly described in the PoA in accordance with PS for PoA. The validation team compared the provided monitoring plan with requirements of applied methodologies and tools and verified that it is feasible within the project design.</p> <p>All fixed and monitored parameters are determined in accordance with requirements of applicable methodology and tools.</p> <p>The CME has demonstrated ability to implements the provided monitoring plan.</p>

#### D.7.4. Crediting period type and duration

<b>Means of validation</b>	As well as the PoA which this CPA is attached to, the crediting period type of this CPA is renewable and its duration is 3 x 7 years and 0 months.
<b>Findings</b>	N/A
<b>Conclusion</b>	The crediting period type and duration of this CPA is in compliance with the proposed PoA to which this CPA is attached.

#### D.7.5. Eligibility criteria for inclusion of CPAs

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	The geographical boundary of this CPA is all the Chilean or Colombian territory as per definition in the proposed PoA. The validation of this	CAR 3	It is clear in the PoA-DD that this PoA will only accept CPAs included in the Chilean or Colombian territories. Moreover, it is defined in the PoA-

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		criteria will be made by checking the geographical coordinates of the project in the respective Technical Feasibility Study		DD which are the documents that will be used for confirming this information.
2.	Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	A declaration of unique identification will be stated by the CME in the CPA DD when including the CPA. The information will also be verified by DOE.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
3.	Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	Every new CPA to be included in the PoA will be crosschecked within data bases of CDM projects in order to prove their authenticity. A declaration from CPA implementer will be provided to validation team ensuring this condition.	N/A	The information is duly provided in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
4.	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	Only greenfield solar photovoltaic power plants will be allowed under this PoA. The plants will have installed capacity up to 5MW. Range of technical parametrs were provided in the generic CPA. Nevertheless, the correct figures will be provided at the specific case CPA. The Technical Supplier Offer or the Technical Feasibility Study will be used for attesting the installed technology.	CAR 3	The information is duly described in the PoA-DD. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
5.	Conditions to check the start date of the CPA through documentary evidence;	The CPA start date must be after 03/02/2020, which is the start date of the PoA. When including the CPA, the CME is required to inform the 1st Contract of the	CAR 3	It is duly described in the PoA-DD that only CPAs with starting date after the PoA-Start date will be eligible for this PoA. Moreover, the required evidence for this

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		construction or the main equipment or facilities and to provide evidence.		confirmation is duly described in the PoA-DD and considered sufficient by the validation team. The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria.
6.	Applicability conditions of the methodology and standardized baseline	The applicability conditions of the applied methodology will be checked when including a CPA. CPA –DD will be checked and compared to Technical Supplier Offer and the Technical Feasibility Study, in order to evidence the information	CAR 3	The applicability conditions of the applied methodology and tools are all cited in the generic CPA and will be assessed at the time of Specific case CPA inclusion. It is duly defined in the PoA-DD which are the evidences that will be used for attest the compliance of the CPA with mentioned documents.
7.	The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality	<p>CPA will be automatically additional if it fulfils the requirements of the TOOL 19 (Demonstration of additionality of microscale project activities). The CPA will be applicable for the following criteria as per paragraph 11 of this TOOL (only the applicable requirements are stated below):</p> <p>11: Project activities that employ renewable energy technology up to 5 MW installed capacity are additional if any one of the conditions below is satisfied:</p> <p>b) The project activity is an off-grid activity supplying energy to households/communities (less than</p>	CAR 3	<p>The section K of the generic CPA details the approach for determining additionality when TOOL32 is applied. The conditions for its applicability are mentioned in the section K of the PoA-DD under Additionality section.</p> <p>The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria. Moreover, the CME inclusion form is being provided<sup>/16/</sup> for registration in the request for registration (RfReg)</p>

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
		<p>12 hours' grid availability per 24 hours is also considered "off-grid" for this assessment)</p> <p>c) The project activity consists of solar photovoltaic plants for distributed energy generation (not connected to a national or regional grid) where end users are households, communities or small and medium-sized enterprises (SMEs);</p> <p>The CPAs under this generic CPA will be automatically additional and will have the option to be included directly by the CME. A CME inclusion form<sup>17/</sup> has been duly provided to the Validation team in accordance with PCP requirements.</p>		
8.	Conditions to ensure the compliance with other requirements of the applied methodologies;	<p>Only greenfield solar Photovoltaic power plants are allowed under this CPA, connected to the national grid, which comply with national/regional regulations and applicability conditions of AMS-I.F and applied tools. The applicability conditions of methodology and tools were already assessed in item 6 of this table.</p>	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
9.	The PoA-specific requirements stipulated by the CME including any	The local stakeholder consultation will be carried out at CPA	N/A	The information is duly provided in the PoA-DD and it is

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
	conditions related to undertaking local stakeholder consultations and environmental impact analysis	level as part of the environmental licensing. Moreover, environmental impact analysis will be carried out also at CPA level as per requirements of national/local legislation. Evidences of Local stakeholder consultation and EIA will be assessed during the CPA inclusion, such as Minutes, stakeholder consultation reports, EIA, etc. will be provided.		considered sufficient by the validation team for this criteria.
10.	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	The CME check the information regarding public funding from Annex I party and if any, confirm that it does not result in diversion of official development assistance. The Affidavit on No public Funding from Annex I party will be provided as evidence.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
11.	Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)	The included CPAs will consist in installation of solar photovoltaic power plants off-grid connected to mini-grid (not connected to regional/national grid), end users or small/medium size enterprises (SMEs). Technical Supplier Offer and the Technical Feasibility Study will be used as evidence of this criteria.	N/A	The evidences required, described in the generic CPA are considered sufficient by the verification team to comply with this criteria
12.	Where applicable, the conditions related to sampling requirements for the PoA in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities";	No sampling will be applied to the CPA.	N/A	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team.
13.	Where applicable, the requirements for the debundling check, in case	The PoA-DD states that the project will not be a debundled CPA	N/A	The information is duly provided in the PoA-DD and it is

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
	the CPAs belongs to small-scale or microscale project categories	and for that, the requirements from TOOL20, paragraph 15 will be taken into account. As evidence, a statement from CME informing this condition.		considered sufficient by the validation team for this criteria.
14.	Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA	It was verified that in the PoA-DD it is defined that the installed capacity will not overcome 5 MW, therefore, remaining under microscale threshold. The Technical Supplier Offer and the Technical Feasibility Study will be used as evidence for this condition.	CAR 3	The information is duly provided in the PoA-DD and it is considered sufficient by the validation team for this criteria.

As not all eligibility criteria has been taken into account and not all evidences were mentioned, a CAR has been raised.

Refer to CAR 3

#### Conclusion:

The eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the “CDM project standard for programmes of activities.

All eligibility criterion required in the PoA-DD for inclusion of each CPA, including the conditions that corresponding CPAs, meet the requirement pertaining to the demonstration of additionality. Moreover, all these criteria are defined in accordance with the applicable requirements in the “CDM project standard for programme of activities” and could be verifiable during the CPA inclusion process. Moreover, the criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of corresponding CPAs in the PoA.

## **SECTION E. Internal quality control**

The draft validation report that is prepared by validation team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by ESPL were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable CDM rules/requirements.

The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope to which the project activity is related. All members of technical review team are independent of the validation team.

During the technical review process, additional findings may be identified or the closed out findings may be opened, which needs to be satisfactorily resolved before the request for registration of the PoA is submitted to UNFCCC. The independent technical reviewer may either approve the report as such or reject/return the same, in such case, providing the comments/findings/issues that needs to

be resolved by the validation team. The decision taken by the technical reviewer is final and is authorized on behalf of ESPL.

## **SECTION F. Validation opinion**

Earthood Services Private Limited, contracted by ALLCOT AG, has performed the independent validation of the PoA “Multi-country Renewable Energy Programme of Activities” as reported in the PoA-DD (final). ALLCOT AG is also the responsible for the description, monitoring plan and description GHG emissions reductions of component project activity.

ESPL commenced the validation based on the baseline and monitoring methodologies reported in the PoA in each generic CPA.

ESPL’s validation approach is based on the understanding of the risks associated with reporting the implementation of the PoA, estimates of GHG emission data and the controls to be implemented to mitigate these. ESPL planned and performed the validation by obtaining evidence, other information and explanations that ESPL considered necessary to give reasonable assurance that the estimated GHG emission reductions are fairly to be achieved.

The validation team confirms that:

- the proposed PoA complies with the corresponding latest version of the PoA-DD form;
- the proposed PoA complies with all eligibility criteria for the registration of the CDM PoA; and
- the proposed PoA complies with all relevant CDM rules and requirements.

Therefore, Earthood Services Private Limited is able to confirm that the proposed PoA “Multi-country Renewable Energy Programme of Activities” complies with all requirements related to the PoA validation as per CDM rules/procedures/guidances.

## Appendix 1. Abbreviations

Abbreviations	Full texts
ACM	Approved Consolidated Methodology
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CM	Combined Margin
CME	Coordinating/Managing Entity
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
CP	Crediting Period
CPA-DD	Component Project Activity Design Document
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GSC/GSP	Global Stakeholder Consultation Process
GW	Giga Watt
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill gas
LSC	Large scale
KP	Kyoto Protocol
kW	kilo Watt
kWh	kilo Watt hour
LoA	Letter of Approval/Authorization
MoC	Modalities of Communication
MoV	Means of Validation
MP	Monitoring Plan
MW	Mega Watt
MWh	Mega Watt hour
OC-SENI	National Electric System Coordinating Organization
OM	Operating Margin
PA	Project Activity
PCP	Project Cycle Procedure
PDD	Project Design Document
PE	Project Emission
PLF	Plant Load Factor
PoA-DD	Programme of Activities Design Document
PP	Project Participant
PS	Project Standard
PV	Photovoltaic
RFR	Request for Registration
SSC	Small Scale
tCO <sub>2</sub> e	Tonnes of Carbon di oxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VT	Validation Team
VVS	Validation and Verification Standard
XM	Wholesale energy market Company from Colombia

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

Competence Statement			
<b>Name</b>	Marcelo Sebben		
<b>Country</b>	Brazil		
<b>Education</b>	M.Sc. (Sustainable Energy System) B. Eng. (Chemical Engineering)		
<b>Experience</b>	12.5 Years		
<b>Field</b>	Chemical process industry, CDM, Energy, Climate Change		
Approved Roles			
<b>Team Leader</b>	Yes		
<b>Validator</b>	Yes		
<b>Verifier</b>	Yes		
<b>Methodology Expert</b>	Yes (ACM0001, ACM0002, ACM0006, AM0065, AMS ID, AMS-I.E, AMS-I.C, AM0026, AMS-I.A, AMS-I.F, GS: Ecologically Sound Fuel Switch to Biomass with Reduced Energy Requirement, GS: Technologies and Practices to Displace Decentralized Thermal Energy Consumption)		
<b>Local expert</b>	Brazil, Chile, Honduras		
<b>Financial Expert</b>	Yes		
<b>Technical Reviewer</b>	Yes		
<b>TA Expert</b>	Yes (TA 1.1, 1.2, 5.1, 9.1, 13.1)		
<b>Reviewed by</b>	Shreya Garg	<b>Date</b>	31/01/2019
<b>Approved by</b>	Anshika Gupta	<b>Date</b>	01/02/2019

Competence Statement			
<b>Name</b>	Shreya Garg		
<b>Country</b>	India		
<b>Education</b>	M.Sc. (Climate Science & Policy), TERI University		
<b>Experience</b>	6 Years +		
<b>Field</b>	Climate Change		
Approved Roles			
<b>Team Leader</b>	YES		
<b>Validator</b>	YES		
<b>Verifier</b>	YES		
<b>Methodology Expert</b>	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
<b>Local expert</b>	YES (India)		
<b>Financial Expert</b>	NO		
<b>Technical Reviewer</b>	YES		
<b>TA Expert</b>	YES (TA 1.2, TA 3.1)		
<b>Reviewed by</b>	Abhishek Mahawar	<b>Date</b>	01/03/2018
<b>Approved by</b>	Ashok Gautam	<b>Date</b>	01/03/2018

## Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	UNFCCC	Standard: CDM PS for PoA	version 02.0	Other
2.	UNFCCC	Standard: CDM PCP or PoA	version 02.0	Other
3.	UNFCCC	Standard: CDM VVS or PoA	version 02.0	Other
4.	UNFCCC	Form: CDM-PoA-DD-FORM	version 09.0	Other
5.	PP	Programme of Activities design document (draft)	version 1 – 01/05/2020	PP
6.	PP	Programme of Activities design document (Revised/final)	Version 2 – 07/09/2020 Version 3 – 24/12/2020 (final)	PP
7.	UNFCCC	<u>Methodology:</u>  - ACM0002 – Grid-connected electricity generation from renewable sources - AMS.I-D “Grid connected renewable electricity generation” - AMS.I.F “Renewable electricity generation for captive use and mini-grid	Version 20.0  Version 18.0  Version 03.0	Other
8.	UNFCCC	Applied tools:  1. TOOL01: Tool for the demonstration and assessment of additionality 2. TOOL07: Tool to calculate emission factor of an electricity system 3. TOOL32: Positive lists of technology 4. TOOL19: Demonstration of additionality of microscale project activities 5. TOOL21: Demonstration of additionality of small-scale project activities 6. TOOL20: Assessment of debundling for small-scale project activities.	1. Version 07.0.0 2. Version 07.0 3. Version 2.0 4. Version 9 5. Version 13.0 6. Version 4.0	-
9.	IRENA	<u>Load factors (capacity factor) evidence</u>  - Estimated load factors were based on international recognized information (IRENA – International	- <a href="https://www.irena.org/costs/Charts/Solar-photovoltaic">https://www.irena.org/costs/Charts/Solar-photovoltaic</a> - <a href="https://www.irena.org/costs/Charts/Hydro-power">https://www.irena.org/costs/Charts/Hydro-power</a>	PP

		Renewable Energy Agency) for solar, wind and hydro in South America	- <a href="https://www.irena.org/costs/Charts/Wind">https://www.irena.org/costs/Charts/Wind</a>	
10.	Center of American Experiment  EnergySage  IRENA	<u>Estimated lifetime of generic CPAs</u> - Wind Power plants (20 to 25 years)          - Solar photovoltaic Plants (this evidence states that the solar panels last on average from 25- to 30 years)          - Hydro power plants (30 to 80 years)	- <a href="https://www.americanexperiment.org/2018/06/limited-lifespans-wind-turbines-result-higher-costs-energy/#:~:text=However%2C%20according%20to%20the%20U.S.,about%2020%20to%2025%20years.">https://www.americanexperiment.org/2018/06/limited-lifespans-wind-turbines-result-higher-costs-energy/#:~:text=However%2C%20according%20to%20the%20U.S.,about%2020%20to%2025%20years.</a>          - <a href="https://news.energysage.com/how-long-do-solar-panels-last/#:~:text=As%20a%20general%20solar%20industry,t%20be%20a%20significant%20amount.">https://news.energysage.com/how-long-do-solar-panels-last/#:~:text=As%20a%20general%20solar%20industry,t%20be%20a%20significant%20amount.</a>          - <a href="https://www.irena.org/documentdownloads/publications/re_technologies_cost_analysis-hydropower.pdf">https://www.irena.org/documentdownloads/publications/re_technologies_cost_analysis-hydropower.pdf</a>	
11.	IRENA	<u>Total investment</u> - Solar –          - Wind          - Hydropower	<a href="https://www.irena.org/costs/Charts/Solar-photovoltaic">https://www.irena.org/costs/Charts/Solar-photovoltaic</a>          <a href="https://www.irena.org/costs/Charts/Wind">https://www.irena.org/costs/Charts/Wind</a>          <a href="https://www.irena.org/costs/Charts/Hydropower_r">https://www.irena.org/costs/Charts/Hydropower_r</a>	
12.	Chile Legislation	Law 20257 of 2008 issued by Chilean National Congress, General Law of electric services regarding the generation of electric power with non-conventional renewable energy (NCRE)	20/03/2008	Other

13.	Colombian Legislation	Law 1715 of 2014 issued by Colombian National Congress, which enhances the development of projects based on renewable energy through a series of certain incentives	13/05/2014	Other
14.		MoC - MoC form CDM-MOC-FORM  - written confirmation (email) from the CME entity that submits the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate.	28/10/2020	
15.	Ministry of Environment from Chile  Directorate of Climate Change of the Ministry of Environment and Sustainable Development from Colombia	<u>Letter of Approval</u>  <b>Chile</b> 1. Letter # 205035 (Loa chile 205035)  <b>Colombia</b> 2. Letter of Approval from Colombia # 8250-2-33543 (Loa Colombia 8250-2-33543.pdf)  3. Authorization Letter Authorizing Allcot AG to be project participant of this PoA.	10/12/2020  27/10/2020  23/12/2020	PP
16.	XM  CNE	<u>Public official data from electricity generation from National Grid</u>  1. Colombia - XM – company responsible for management of national electricity generation  2. Chile – CNE – National Commission of energy	<a href="https://www.xm.com.co/Paginas/Home.aspx">https://www.xm.com.co/Paginas/Home.aspx</a>  <a href="https://www.cne.cl/">https://www.cne.cl/</a>	Other
17.	PP	<u>CME Inclusion Form</u> - The inclusion form states that the generic CPA #6 is to be included directly by the CME.	28/12/2020	other
18.	DNA	<u>Chile</u> - Ministry of Environment from Chile  <u>Colombia</u>	<a href="https://mma.gob.cl/">https://mma.gob.cl/</a>  <a href="https://www.minambiente.gov.co/">https://www.minambiente.gov.co/</a>	

**CDM-PoA-VAL-FORM**

		- Directorate of Climate Change of the Ministry of Environment and Sustainable Development		
19.	-	IPCC publications	<a href="http://www.ipcc-nggip.iges.or.jp">www.ipcc-nggip.iges.or.jp</a>	Other
20.	-	UNFCCC	<a href="http://cdm.unfccc.int">http://cdm.unfccc.int</a>	Other

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

Table 1. CLs from this validation

<b>CL ID</b>	01	<b>Section no.</b>	D.1.4	<b>Date</b> : 31/08/2020
<b>Description of CL</b>				
PoA-DD section C: CPA Category 4 and Category 5: it is stated that "Any project activity up to 5MW which employ renewable energy as their primary technology (...) that displace electricity from a grid or distribution system that is or would have been supplied by at least one fossil fuel fired generating unit is additional".: It is not clear whether this condition is in compliance with provisions from TOOL 19.				
<b>Project participant response</b>				<b>Date</b> : 01/09/2020
<p><i>Section C was updated. According to the TOOL 19, paragraph 11 "Project activities that employ renewable energy technology up to 5 MW installed capacity are additional if any one of the conditions below is satisfied:...</i></p> <p><i>(c) The project activity consists of one or more of the following technologies/measures for distributed energy generation (not connected to a national or regional grid) where end users are households, communities or small and medium-sized enterprises (SMEs);</i></p> <p><i>(i) Solar technologies (photovoltaic and solar thermal electricity generation).</i></p>				
<b>Documentation provided by project participant</b>				
PoA-DD 02				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2020
<p>The CPAs were now divided into six different generic CPAs. There is now only one micro-scale type. It is now clarified that the additionality will be assessed in accordance with provisions determined in TOOL19 Demonstration of additionality of microscale project activities. Therefore the additionality demonstration is now clarified and it is in accordance with CDM rules for micro-scales project activities.</p>				
<b>CL is closed</b>				

<b>CL ID</b>	02	<b>Section no.</b>	D.1.12	<b>Date</b> : 31/08/2020
<b>Description of CL</b>				
Modalities of Communication (MoC) has not been provided to the validation team unlike required by PS for PoA para 75.				
<b>Project participant response</b>				<b>Date</b> : 28/10/2020
MoC has been provided				
<b>Documentation provided by project participant</b>				
201201_MoC POA_v01_Colombia (executed)				
<b>DOE assessment</b>				<b>Date:</b> 30/10/2020

The MoC has been provided to the validation team in accordance with requirements of PS for PoA.

The CME provided to the validation team a MoC statement<sup>14/</sup> with the following information.

- The title of the proposed CDM PoA (and UNFCCC reference number if available);
- (b) The date of submission of the MoC statement (to a DOE for inclusion in the request for registration or to the secretariat for changes after registration);
- (c) The designation of a focal point for each scope of authority, contact details and specimen signatures of the authorized signatories of each focal point entity;
- (d) A list of all project participants, contact details and specimen signatures of their authorized signatories;
- (e) The signature of an authorized signatory of the coordinating/managing entity confirming its agreement with the MoC statement.

The MoC statement was provided to the validation team and it is in accordance with the Project Standard requirements.

The corporate identity of all project participants and CME as well as the personal identities, including specimen signatures and employment status, of their authorized signatories were validated through written confirmation from the coordinating/managing entity that submits the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate.

The MoC has been received by CME. The official from CME is duly authorized to sign the written confirmation on behalf of the CME.

The DOE could validate the requirements of the VVS para 82. The DOE has performed due diligence on the MoC statement in accordance with the requirements in VVS for PoA section 7.12.

CL ID	03	Section no.	D.2.3.1, D.3.3.1, D.4.3.1, D.5.3.1, D.6.3.1 and D.7.3.1	Date :	31/08/2020
<b>Description of CL</b>					
Section I.2:					
Large scale Generic CPA:					
<ul style="list-style-type: none"> <li>- the applicability condition of paragraph 9 of applied methodology is not being taken into account in the description of the generic CPA</li> </ul>					
Small scale generic CPA 2					
<ul style="list-style-type: none"> <li>- the applicability condition of paragraph 10 and 11 of applied methodology is not being taken into account in the description of the generic CPA</li> <li>- the information of each small scale component is not being provided separately as required by instructions for completing the generic CPA-DD</li> </ul>					
Small scale generic CPA 3					
<ul style="list-style-type: none"> <li>- the applicability condition of paragraph 10 and 11 of applied methodology is not being taken into account in the description of the generic CPA</li> <li>- the information of each small scale component is not being provided separately as required by instructions for completing the generic CPA-DD</li> </ul>					
Small scale generic CPA 4					
<ul style="list-style-type: none"> <li>- the applicability condition #1, 4, 5 and 6 for AMS IF mentions that the plants will be grid-connected, which is not in accordance with applicability conditions of the applied methodology.</li> <li>- the applicability condition of paragraph 11 of AMS I F and 10 and 11 of AMS I D is not being taken into account in the description of the generic CPA</li> <li>- the information of each small scale component is not being provided separately as required by instructions for completing the generic CPA-DD</li> </ul>					
Small scale generic CPA 5					
<ul style="list-style-type: none"> <li>- the applicability condition #1, 4, 5 and 6 for AMS IF mentions that the plants will be grid-connected, which is not in accordance with applicability conditions of the applied methodology.</li> <li>- the applicability condition of paragraph 11 of AMS I F and 10 and 11 of AMS I D is not being taken into account in the description of the generic CPA</li> </ul>					
<b>Project participant response</b>					<b>Date :</b> 02/09/2020
<i>The applicability conditions were included for each generic CPA.</i>					
<b>Documentation provided by project participant</b>					

PoA-DD 02	
<b>DOE assessment</b>	<b>Date:</b> 01/10/2020
<p>The generic CPAs were divided into the following type for this PoA.</p> <ul style="list-style-type: none"> <li>- Generic CPA 1: Large Scale greenfield solar photovoltaic power plants grid-connected</li> <li>- Generic CPA 2: Large Scale greenfield solar photovoltaic power plants grid-connected applying simplified procedure for determining additionality (positive list as per TOOL32)</li> <li>- Generic CPA 3: Large Scale greenfield wind power plants grid-connected;</li> <li>- Generic CPA 4: Small-scale greenfield solar photovoltaic power plants grid-connected</li> <li>- Generic CPA 5: Small-scale greenfield hydro power plants grid-connected</li> <li>- Generic CPA 6: Micro-scale solar power plants</li> </ul> <p>The applicability conditions were duly included for each generic CPA in accordance with PS for PoA paragraph 124.</p> <p><b>CL is closed</b></p>	

<b>CL ID</b>	04	<b>Section no.</b>	D.2.3.2, D.3.3.2, D.4.3.2, D.5.3.2, D.6.3.2 and D.7.3.2	<b>Date :</b> 31/08/2020
<b>Description of CL</b>				
<p>Section i.4: as per instructions for completing the PoA_DD, the following is missing:</p> <p>All Generic CPA:</p> <ul style="list-style-type: none"> <li>- Describe how to define the project boundary of each corresponding CPA, including how to determine the physical delineation of each corresponding CPA, and which sources and GHGs are to be included in the project boundary in accordance with the applied methodologies and the applied standardized baselines</li> <li>- Include in the flow diagram all the facilities, systems, equipment and flows of mass and energy described in that section. In particular, indicate in the diagram the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored.</li> <li>- For small and micro scales, the information is not provided for each component separately (if applicable) as required by instructions for completing the generic CPA-DD.</li> </ul>				
<b>Project participant response</b>				<b>Date :</b> 01/09/2020
<p><i>The project boundary was improved to include a flow diagram and how to determine the physical delineation of each corresponding CPA, and which sources and GHGs are to be included in the project boundary</i></p>				
<b>Documentation provided by project participant</b>				
PoA-DD 02				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2020
<p>The generic CPAs were divided into the following type for this PoA.</p> <ul style="list-style-type: none"> <li>- Generic CPA 1: Large Scale greenfield solar photovoltaic power plants grid-connected</li> <li>- Generic CPA 2: Large Scale greenfield solar photovoltaic power plants grid-connected applying simplified procedure for determining additionality (positive list as per TOOL32)</li> <li>- Generic CPA 3: Large Scale greenfield wind power plants grid-connected;</li> <li>- Generic CPA 4: Small-scale greenfield solar photovoltaic power plants grid-connected</li> <li>- Generic CPA 5: Small-scale greenfield hydro power plants grid-connected</li> <li>- Generic CPA 6: Micro-scale solar power plants</li> </ul> <p>The project boundary, facilities to be installed and all components of each generic CPA were duly explained in the POA.</p> <p><b>CL is closed</b></p>				

<b>CL ID</b>	05	<b>Section no.</b>	D.2.3.3, D.3.3.3, D.4.3.3, D.5.3.3, D.6.3.3 and D.7.3.3	<b>Date :</b> 31/08/2020
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Description of CL	
<p>All generic CPAs</p> <p>Section i.5: as required by instructions for completing the PoA-DD, the CME is not describing how the relevant national and/or sectoral policies, regulations and circumstances were taken into account in accordance with the project standard paras 104 to 106.</p> <p>Generic CPA 4 and CPA 5</p> <p>Section i.5: baseline scenario for each methodology is not being taken into account.</p>	
Project participant response	Date : 01/09/2020
<p>Section i.5 was improved for all generic CPAs to show that relevant national and/or sectoral policies, regulations and circumstances were taken into account.</p> <p>Generic CPA 4 and CPA 5 were modified to separate the baseline scenario in grid connected and isolated mini-grid.</p>	
Documentation provided by project participant	
PoA-DD 02	
DOE assessment	Date: 01/10/2020
<p>Section i.5: as all CPAs comprehend only installation of greenfield power plants, the baseline scenario is given by applied methodologies and therefore, consideration of national or sectoral policies for determining baseline scenario are not applicable. Therefore it is clear in the PoA-DD that all CPAs will follow the national/local regulations for its installation.</p> <p>Baseline scenario for all generic CPAs were duly provided and were based on the applied methodology.</p>	
<b>CL is closed</b>	

CL ID	06	Section no.	D.2.3.4, D.3.3.4, D.4.3.4, D.5.3.4, D.6.3.4 and D.7.3.4	Date : 31/08/2020
Description of CL				
<p>Section i.6.1: the following information is inconsistent when determining the parameter EFgrid</p> <p>Large scale Generic CPA:</p> <ul style="list-style-type: none"> <li>- According to the applied methodology, the parameter EFgrid is calculated through TOOL07 only, unlike stated in the PoA-DD.</li> <li>- as the TOOL provide different options to choose from, it was not indicated or justified which option has been chosen for the generic CPA for determining the parameter.</li> <li>- Paragraphs 99 to 101 of TOOL 07 have not being taken into account.</li> </ul> <p>Small scale generic CPA 2, 3, 4 and 5</p> <ul style="list-style-type: none"> <li>- As the TOOL07 provide different options to choose from, it was not indicated or justified which option has been chosen for the generic CPA for determining the parameter.</li> <li>- Paragraphs 99 to 101 of TOOL 07 have not being taken into account.</li> </ul>				
Project participant response				Date : 04/09/2020
<p>Section i.6.1 was updated to include that parameter EFgrid is calculated through TOOL07 only and to show how the calculation method of the OM is going to be chosen.</p>				
Documentation provided by project participant				
PoA-DD 02				
DOE assessment				Date: 01/10/2020
<p>The parameter EFgrid or EF<sub>CO2</sub> (for off-grid instalations) were determined based on provisions of applied methodologies. Options to be chosen were all defined in the generic CPAs and can be reproduced in the specific case CPAs.</p>				
<b>CL is closed</b>				

Table 2. CARs from this validation

CAR ID	01	Section no.	D.2.1, D.3.1, D.4.1, D.5.1, D.6.1 and D.7.1	Date : 31/08/2020
Description of CAR				

## Section H.3

## Large scale Generic CPA:

It is stated that the large scale generic CPA will comprehend renewable sources such as wind, solar and tidal/wave and may accept greenfield, capacity addition, retrofit, rehabilitation or replacement. Moreover, most of these technologies may accept demonstration of additionality through TOOL32 or TOOL01. It is being required to the CME to justify how the application of these conditions in the same generic CPA are in accordance with paragraphs 58 to 60 of the applied methodology ACM0002 (read in conjunction with paragraph 77 to 79 of the PS for POA).

Wave energy was not part of the contract scope.

## Small Scale generic CPA 2

It is not clear the plants installed under this CPA will only be grid-connected or also off-grid.

As per instructions for completing PoA-DD, it is not clear the small-scale project type (Type I, Type II and/or Type III)

It is not clear whether the installation of on-shore wind power plants (with unit s above 100kW) is in compliance with paragraph 79 of the PS for PoA, to be included in the same generic CPA with other technologies listed in the positive list of additionality.

It is not clear if there is more than one component in the generic CPA as per PS for POA para 127.

## Small Scale generic CPA 3

It is stated that only new hydro power plants will be installed under this CPA. Nevertheless, the section H4 states that greenfield, capacity addition, etc, are applicable. Therefore, the information in both sections are not consistent.

It is not clear the plants installed under this CPA will only be grid-connected or also off-grid.

As per instructions for completing PoA-DD, it is not clear the small-scale project type (Type I, Type II and/or Type III)

It is not clear if there is more than one component in the generic CPA as per PS for POA para 127.

## Micro- Scale generic CPA 4

As per instructions for completing PoA-DD, it is not clear the micro-scale project type (Type I, Type II and/or Type III)

It is not clear whether the installation of wind power plants is in compliance with paragraph 79 of the PS for PoA, to be included in the same generic CPA with other technologies listed in the positive list of additionality.

It is not clear if there is more than one component in the generic CPA as per PS for POA para 127.

## Micro- Generic CPA 5

As per instructions for completing PoA-DD, it is not clear the micro-scale project type (Type I, Type II and/or Type III)

It is not clear if there is more than one component in the generic CPA as per PS for POA para 127.

**Project participant response**

**Date :** 03/09/2020

*Section H.3 for each Generic CPA was updated to include the required specifications.*

**Documentation provided by project participant**

PoA-DD 02

**DOE assessment**

**Date:** DD/MM/YYYY

The generic CPAs were divided into the following type for this PoA.

- Generic CPA 1: Large Scale greenfield solar photovoltaic power plants grid-connected
- Generic CPA 2: Large Scale greenfield solar photovoltaic power plants grid-connected applying simplified procedure for determining additionality (positive list as per TOOL32)
- Generic CPA 3: Large Scale greenfield wind power plants grid-connected;
- Generic CPA 4: Small-scale greenfield solar photovoltaic power plants grid-connected
- Generic CPA 5: Small-scale greenfield hydro power plants grid-connected
- Generic CPA 6: Micro-scale solar power plants

All information was completed in accordance with PS and requirements of instructions for completing the PoA-DD.

**CL is closed**

<b>CAR ID</b>	02	<b>Section no.</b>	D.2.1, D.3.1, D.4.1, D.5.1, D.6.1 and D.7.1	<b>Date :</b> 31/08/2020
<b>Description of CAR</b>				
<p>PoA-DD section H4: according to the instructions for completing the PDD, the following specifications are still missing:</p> <p>Large scale Generic CPA:</p> <ol style="list-style-type: none"> <li>1. The technologies/measures to be employed and/or implemented by the corresponding CPAs including: <ol style="list-style-type: none"> <li>a. (a) A list of the facilities, systems and equipment that will be installed and/or modified by the corresponding CPAs;</li> <li>b. (b) The types and levels of services</li> <li>c. (c) The arrangement of the facilities, systems and equipment;</li> <li>d. (d) The range of the age and average lifetime of the equipment based on the manufacturer's specifications and industry standards;</li> <li>e. (e) The range of the installed capacities, load factors and efficiencies;</li> <li>f. (f) The energy and mass flows and balances of the facilities, systems and equipment, if necessary;</li> <li>g. (g) The monitoring equipment and their location in the systems.</li> </ol> </li> <li>2. Describe the technologies/measures existing prior to the implementation of the corresponding CPAs at the same sites, as applicable, including the equivalent information listed in paragraph 1 above on the facilities, systems and equipment.</li> <li>3. Provide a short summary of the baseline scenario as established in section I.5 below, including the equivalent information listed in paragraph 1 above</li> </ol> <p>Small Scale Generic CPA #2, #3, #4, and 5</p> <ol style="list-style-type: none"> <li>4. The same information described above is missing for small scale. If there is more than one component in the generic small-scale CPA, the information for each component separately is not provided.</li> </ol>				
<b>Project participant response</b>				<b>Date :</b> 04/09/2020
Section H.4 for each Generic CPA was updated to include the required specifications.				
<b>Documentation provided by project participant</b>				
PoA-DD 02				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2020
<p>All information required, such as facilities, type of services, arrangements of the facilities, range of installed capacities, average lifetime and load factors, as well as monitoring equipments were duly provided in each generic CPA as required by PS and instructions for completing the PoA-DD. The ranges applied were duly assessed based on provided evidences and are considered accurate.</p>				
<b>CAR is closed</b>				

<b>CAR ID</b>	03	<b>Section no.</b>	D.2.5, D.3.5, D.4.5, D.5.5, D.6.5 and D.7.5	<b>Date :</b> 31/08/2020
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Description of CAR	
<p>Section K: regarding the eligibility criteria, the following issues were found</p> <p>Large scale Generic CPA:</p> <p>in the table, supporting evidences required for each eligibility criteria are not defined unlike required by PS (especially for items 1, 6, 9)</p> <p>Item 3: technology/measure: according to the instructions for completing PoA-DD, "specifications of the technology/measure shall include the type, capacity and other key features of the design of the systems.</p> <p>item 5 additionality: the required conditions are not carried out in accordance with PS for PoA para 124)g)iv). Moreover, not all options of the applied methodology were included (TOOL32)</p> <p>conditions defined in PS for PoA para 124)h): it is not clear whether the CME took into consideration the provisions of the methodology paragraphs 57 to 62.</p> <p>conditions defined in PS for PoA para 124)m are not being taken into account</p> <p>Small scale Generic CpA 2</p> <p>in the table, supporting evidences required for each eligibility criteria are not defined unlike required by PS (especially for items 1, 6, 9)</p> <p>Item 3: technology/measure: according to the instructions for completing PoA-DD, "specifications of the technology/measure shall include the type, capacity and other key features of the design of the systems.</p> <p>item 5 additionality: the required conditions are not carried out in accordance with PS for PoA para 124)g)iv), specifically related to wind energy. Moreover, it is not clear whether the CME took into consideration the provisions of the PS para 79 when including wind energy into this generic CPA.</p> <p>conditions defined in PS for PoA para 124)m are not being taken into account</p> <p>Small scale Generic CpA 3</p> <p>in the table, supporting evidences required for each eligibility criteria are not defined unlike required by PS (especially for items 1, 6, 9)</p> <p>item 5 additionality: the required conditions are not carried out in accordance with PS for PoA para 124)g)iv).</p> <p>conditions defined in PS for PoA para 124)m are not being taken into account</p> <p>Generic CpA 4</p> <p>in the table, supporting evidences required for each eligibility criteria are not defined unlike required by PS (especially for items 1, 6, 9)</p> <p>item 5 additionality: the required conditions are not carried out in accordance with PS for PoA para 124)g)iv), specifically related to wind energy. Moreover, it is not clear whether the CME took into consideration the provisions of the PS para 79 when including wind energy into this generic CPA.</p> <p>conditions defined in PS for PoA para 124)m are not being taken into account</p> <p>Generic CpA 5</p> <p>in the table, supporting evidences required for each eligibility criteria are not defined unlike required by PS (especially for items 1, 6, 9)</p> <p>item 5 additionality: the required conditions are not carried out in accordance with PS for PoA para 124)g)iv), in case technologies not included in the positive list.</p> <p>conditions defined in PS for PoA para 124)m are not being taken into account</p>	
<b>Project participant response</b>	<b>Date : 01/09/2020</b>
<i>Section K was updated for each Generic CPA to correct the found issues.</i>	
<b>Documentation provided by project participant</b>	
<i>PoA-DD 02</i>	
<b>DOE assessment</b>	<b>Date: 01/10/2020</b>
All evidences to be provided in each eligibility criteria for each generic CPA were duly mentioned in the PoA-DD and assessed along the validation report.	
<b>CAR is closed</b>	

Table 3. FARs from this validation

<b>FAR ID</b>	xx	<b>Section no.</b>		<b>Date:</b> DD/MM/YYYY
<b>Description of FAR</b>				
<i>Not applicable</i>				
<b>CME response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by CME</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

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**Document information**

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	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);</li><li>• Make editorial improvements.</li></ul>
02.0	29 December 2017	Revision to align with the requirements of the “CDM validation and verification standard for programme of activities” (version 01.0).
01.0	4 May 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: programme of activities, validation report		