




## Validation report form for renewal of crediting period of component project activities

(Version 03.0)

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

### BASIC INFORMATION

<b>Title and UNFCCC reference number of the programme of activities (PoA)</b>	Small-Scale Renewable Energy PoA in Thailand (6222)		
<b>Version number of the validation report</b>	1.2		
<b>Completion date of the validation report</b>	30/08/2020		
<b>Version numbers of PoA-DD to which this report applies</b>	3.0		
<b>Title and UNFCCC reference number of each CPA for renewal</b>	CPA Ref. no.	<b>Title</b>	
	6222-P1-0001	CPA No. 1: IFEC Solar PV	
<b>Sectoral scopes for each CPA</b>	CPA Ref. no.	<b>Sectoral scopes (indicate mandatory and conditional sectoral scopes)</b>	
	6222-P1-0001	Sectoral Scope : 1 (mandatory)	
<b>Applied methodologies and standardized baselines for each CPA</b>	CPA Ref. no.	<b>Applied methodologies and standardized baselines</b>	
	6222-P1-0001	AMS-I.D Grid connected renewable electricity generation (Version 18.0)	
<b>Number and duration of the next crediting period (CP)</b>	CPA Ref. no.	<b>No. of CP</b>	<b>Duration of the CP</b>
	6222-P1-0001	2 <sup>nd</sup>	01/07/2019 – 30/06/2026
<b>Coordinating/managing entity (CME)</b>	Carbon Coordinating Managing Entity Limited		
<b>Host Parties</b>	Thailand		
<b>Estimated amount of annual average greenhouse gas (GHG) emission reductions or GHG removals by sinks in the next crediting period (tCO<sub>2</sub>e), per CPA</b>	CPA Ref. no.	<b>Annual emission reductions or removals (tCO<sub>2</sub>e)</b>	
	6222-P1-0001	7,661 tCO <sub>2</sub> e	
<b>Name and UNFCCC reference number of the DOE</b>	Foundation for Industrial Development - Management System Certification Institute (Thailand) (FID-MASCI) / E-0058		
<b>Name, position and signature of the approver of the validation report</b>	<div style="text-align: center;">               Mr. Thanit Piyasirisilp, Vice President of System Certification Department           </div>		

**SECTION A. Executive summary**

FID-MASCI has performed the validation of renewal of crediting period of CPA “CPA No. 1: IFEC Solar PV” under the CDM PoA “Small-Scale Renewable Energy PoA in Thailand”. The validation is based on the currently valid documentation of the United Nations Framework Convention on Climate Change (UNFCCC).

The validation process includes three phases:

- Desk review of documents;
- Follow-up interviews with the relevant personnel;
- Resolution of outstanding issues and the issuance of final validation report and opinion.

Carbon Coordinating Managing Entity Limited (CCME) has commissioned FID-MASCI to carry out the validation of renewal of crediting period of the CPA “CPA No. 1: IFEC Solar PV” of the CDM PoA “Small-Scale Renewable Energy PoA in Thailand”, with regard to the relevant requirements for CDM activities, as well as criteria given by the CDM VVS for PoA, CDM PCP for PoA and CDM PS for PoA and included an assessment of:

- (a) The impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant guidance from the Board with regard to renewal of the crediting period at the time of requesting renewal of crediting period.
- (b) The correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

The CPA involves the implementation of two Project Activities (JKR Energy Company Limited and RPV Energy Company Limited) based on Technology Type 2 (Solar Photovoltaic) bundled under the same CPA with a total installed capacity of 11 MW. Each Project Activity has an installed electricity generation capacity of 5.5 MW and an individual connection to the grid (subject to individual Power Purchase Agreements (PPA) with the Provincial Electric Authority (PEA) of Thailand). Both Project Activities are located at the same site within Kanchanaburi province in Thailand. Based on an average daily solar radiation of 4.88 kWh/m<sup>2</sup>/day in the CPA region, the average expected electricity export to the grid is about 6,729 MWh/year per Project Activity (13,458 MWh/year for the entire CPA). The CPA is expected to reduce 7,661 tCO<sub>2</sub>e per annum, which would have been otherwise emitted to the atmosphere by fossil fuel-based power plants connected to the Thai national grid.

In renewal of crediting period of CPA, the emission factor has been calculated based on the “Tool to calculate the emission factor for an electricity system” following the requirement of the applied methodology AMS I-D Version. 18, which was published by TGO (Thai DNA) on 28/09/2017. The first crediting period of CPA (7years) started on 01/07/2012. Second PoA period will be started from 01/07/2019. Clarification requests (CL) 4 items and Corrective Action Request (CAR) 2 items were raised during the course of validation process of renewal of crediting period of CPA and has been closed. Forward Action Request (FAR) 1 item was raised.

In conclusion, it is FID-MASCI's opinion that the CPA meets all the relevant requirements for the renewal of the crediting period.

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader	IR	Ngeimvijawat	Atchada	FID-MASCI	Yes	N/A	Yes	Yes
2.	Validator	IR	Boonyong	Teerakul	FID-MASCI	Yes	N/A	N/A	Yes
3.	Validator	IR	Lapsunthornp hitak	Naris	FID-MASCI	Yes	N/A	N/A	Yes
4.	Technical Expert	IR	Seanglert	Parinya	FID-MASCI	Yes	N/A	Yes	Yes
5.	Trainee	IR	Khemthong	Mattana	FID-MASCI	Yes	N/A	Yes	Yes

**B.2. Technical reviewer and approver of the validation report for RCP**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Smolders	Johannes	FID-MASCI
2.	Approver	EI	Piyasirisilp	Thanit	FID-MASCI

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

The information presented in the PoA-DD, the CPA-DD and the emission reduction calculation sheet (Ex ante ER cal\_CP2\_IFEC Solar CPA) related to the technical design has been assessed for accuracy and completeness using standard auditing techniques including:

(a) Document review, including a review of data and information, cross checks between information provided in the PoA-DD, the CPA-DD, the emission reduction calculation sheet (Ex ante ER cal\_CP2\_IFEC Solar CPA) and information from sources other than those used, the DOE's sectoral or local expertise, and independent background investigations.

(b) Follow-up actions, including interviews with relevant stakeholders in the host country, such as personnel with knowledge of the PoA and CPA design and implementation, cross checks between the information provided by interviewed personnel to ensure that no relevant information has been omitted.

(c) Reference to available information relating to programme, projects or technologies similar to the proposed PoA and CPA under validation.

(d) Review, based on the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, of the appropriateness of formulae and accuracy of calculations.

A complete list of all documents reviewed is attached as Appendix 3 to this report.

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

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

On-site visit has not been performed for the validation of the renewal of crediting period, in accordance with CDM VVS for PoA, version 02.0, paragraph 183, as the estimated annual average of GHG emission reductions of the CPA is less than 100,000 tCO<sub>2</sub>e. Representatives from CME have been interviewed by telephone and e-mail, publicly available authentic sources were reviewed for cross checking necessary information. There is no change in the eligibility of PoA or operation and monitoring practices as mentioned in the registered PoA of 1<sup>st</sup> crediting period which can alter the applicability or additionality of the methodology applied i.e. AMS.I.D version 18.

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Rukwongtrakool	Suwipa	Project Manager - CCME	14/04/2020	<ul style="list-style-type: none"> <li>• Overview of CDM PoA and generic CPA</li> <li>• Any modifications with respect to the registered CDM PoA and generic CPA</li> <li>• Technologies</li> <li>• Methodologies and standardized baselines</li> <li>• Estimation of emission reductions</li> <li>• Data, parameters and monitoring plan</li> <li>• Eligibility criteria for inclusion of CPAs</li> <li>• Management system</li> </ul>	Ms. Atchada Ngeimvijawat Mr. Parinya Seanglert Ms. Mattana Khemthong
2.	Rukwongtrakool	Suwipa	Project Manager - CCME	30/04/2020	<ul style="list-style-type: none"> <li>• Overview of CPA No.1 (JKR and RPV)</li> <li>• Status of the project activity and any modifications</li> <li>• The lifetime of the project activity</li> <li>• Monitoring plan and changes</li> </ul>	Ms. Atchada Ngeimvijawat Mr. Parinya Seanglert Ms. Mattana Khemthong
	Asawakul	Koravit	Project Manager - CPA No. 1: IFEC Solar PV			

**C.4. Sampling approach**

Not Applicable.

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

Area of validation findings (SECTION D)	No. of CL	No. of CAR	No. of FAR
CPAs to be renewed and corresponding generic CPAs			
Compliance with CPA-DD form	3	1	
Application and selection of methodologies and standardized baselines		1	
Validity of original baseline or its update	1		
Demonstration of eligibility of the CPAs			
Estimated emission reductions or net anthropogenic removals			
Validity of monitoring plan			
Crediting period			
CME and project participants			1
Post-registration changes			
Others (please specify)			
<b>Total</b>	<b>4</b>	<b>2</b>	<b>1</b>

**SECTION D. Validation findings****D.1. CPAs to be renewed and corresponding generic CPAs**

Title and UNFCCC reference number of the CPA	Version number of the CPA-DD	Host Party	Title and reference number of the corresponding generic CPA	Version number of the PoA-DD on which the RCP is based
Small-Scale Renewable Energy PoA in Thailand - CPA No. 1: IFEC Solar PV (6222-P1-0001)	Version 4.1 (Date 17/08/2020)	Thailand	Generic CPA No. 2 Technology Type: Solar photovoltaic power generation (PV)	Version 3 (Date 16/06/2020)

**D.2. Compliance with CPA-DD form**

<b>Means of validation</b>	The CPA-DD form used is CDM-CPA-DD-FORM version 09.0, which is the appropriate valid form, and the latest version available at the time of validation. All the sections of CPA-DD form were filled as per the guidelines and gave all the relevant details.
<b>Findings</b>	<p>CAR 01 was raised during the validation process. Some information provided in the updated CPA-DD (Version 1 Date 06/03/2020) was not consistent with the Registered CPA-DD (Version 2.4 Date 12/03/2012) for CPA No. 1: IFEC Solar PV. Then, technology description stated in section A.3 of the revised CPA-DD was corrected and consistent with the Registered CPA-DD (Version 2.4 Date 12/03/2012) for CPA No. 1: IFEC Solar PV and EPC contract, specifications and pictures provided by CME. Thus, CAR 01 was closed successfully.</p> <p>CL 01, CL 02 and CL 03 were raised during the validation process. Some information provided in the updated CPA-DD (version 4, date 02/07/2020) has to be clarified i.e. the geographic coordinates and boundary of each project activity, information related to capacity of PV module, the boundary of each project activity. Then, the relevant information was clarified and updated in the revised CPA-DD (version 4.1, date 17/08/2020). Thus, CL 01, CL 02 and CL 03 were closed successfully.</p>

<b>Conclusion</b>	In line with the paragraph 396 of VVS PoA version 02.0, the validation team confirmed that the revised CPA-DD (version 4.1, date 17/08/2020) was completed correctly using the applicable and valid version of CPA-DD form (CDM-CPA-DD-FORM version 09.0) and instructions therein. The CME used a later valid version of the CPA-DD form for the revised CPA-DD (version 4.1, date 17/08/2020) than the version of the form of the registered PoA-DD, the information transferred to the later valid version of the CPA-DD form is materially the same as that in the included CPA-DD.
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### D.3. Application and selection of methodologies and standardized baselines

Means of validation	The CME has applied the methodology AMS.I.D version 18. This version of the methodologies is the latest version and currently valid for the submission of the PoA. The CPA meets the criteria defined in the baseline methodology.	
Findings	CAR 02 was raised during the validation process. Determination of leakage emissions stated in the updated CPA-DD (Version 1 Date 06/03/2020) was not updated in line with paragraph 42 of AMS-I.D, version 18 which was revision to remove restrictions for leakage. Then, determination of leakage emissions stated in the revised CPA-DD was corrected in line with paragraph 42 of AMS-I.D, version 18. Thus, CAR 02 was closed successfully.	
Conclusion	The validation team checked the section I.2 of the generic CPA, compliance with the applicability conditions of AMS.I.D version 18 has been one of the eligibility criteria for inclusion of CPAs, which has been assessed as follows:	
	Methodology requirement	DOE Assessment
	This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: (a) Supplying electricity to a national or a regional grid; or (b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	The CPAs comprise renewable energy generation units based on solar energy that supply electricity to the National grid.
	Distinguish respective situations under which each of the methodology (i.e. “AMS-I.D.: Grid connected renewable electricity generation”, “AMS-I.F.: Renewable electricity generation for captive use and mini-grid” and “AMS-I.A.: Electricity generation by the user) applies.	The CPAs are solar PV power plant supplying electricity to the national grid, therefore AMS-I.D is applicable.
	This methodology is applicable to project activities that: (a) Install a Greenfield plant; (b) Involve a capacity addition in (an) existing plant(s); (c) Involve a retrofit of (an) existing plant(s); (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s).	The CPAs involve the installation of new solar PV power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity. (Greenfield plant). It is noted that 01/07/2012 was the starting date of the first crediting period. The actual commissioning date of the project activities is 15/10/2012 as per the report issued by Provincial Authority Electricity (PEA). Therefore, this condition is applicable.
	Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this	Not applicable. The CPAs are solar PV power plant supplying electricity to the national grid.

	<p>methodology:</p> <p>(a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</p> <p>(b) The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>;</p> <p>(c) The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.</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.	The CPAs are solar PV power plant. The installed electricity generation capacity of the renewable component does not exceed the limit of 15 MW.
	Combined heat and power (co-generation) systems are not eligible under this category	Not applicable. The CPA comprises of renewable energy generation units based on solar energy.
	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 applicable. There is no capacity addition of renewable energy generation.
	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 applicable. There is no retrofit, rehabilitation or replacement, to qualify as a small-scale project.
	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 applicable. The CPAs are solar PV power plant supplying electricity to the national grid.
	In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions	Not applicable. The CPAs are solar PV power plant supplying electricity to the national grid.

	from cultivation of biomass” shall apply.	
	<p>The validation team confirmed that the selected methodology and standardized baseline has been previously approved by the CDM Executive Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed CPA for renewal of crediting period. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology and there is no deviation from the selected methodology and standardized baseline.</p>	

#### D.4. Validity of original baseline or its update

<b>Means of validation</b>	<p>The CME has included the assessment of the validity of the original baseline as per “TOOL11 : Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period (Version 03.0.1 Date 02/03/2012)”, which has been concluded to be still valid and applicable for the PoA. Therefore, the original baseline is still valid for the CPA.</p> <p>Following data parameters are updated from the registered PoA-DD (version 2.4, date 12/03/2012) and the registered CPA-DD (version 2.4, date 12/03/2012) :</p> <table border="1"> <thead> <tr> <th>Data/Parameter</th><th>Value in the registered PoA-DD (version 2.4, date 12/03/2012) and the registered CPA-DD (version 2.4, date 12/03/2012)</th><th>Value in the revised PoA-DD (version 3, date 16/06/2020) and the revised CPA-DD (version 4.1, date 17/08/2020)</th><th>DOE Assessment</th></tr> </thead> <tbody> <tr> <td>CO<sub>2</sub> emission factor of the grid electricity in year y : EF<sub>grid,y</sub> (tCO<sub>2</sub>/MWh)</td><td>0.5554</td><td>0.5692</td><td>The updated value is consistent with latest applied methodology AMS.I.D version 18. Hence, accepted</td></tr> </tbody> </table> <p>Finally, it is concluded that the original baseline scenario is valid and assessment is complete as per “TOOL11 : Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period (Version 03.0.1 Date 02/03/2012)”</p>			Data/Parameter	Value in the registered PoA-DD (version 2.4, date 12/03/2012) and the registered CPA-DD (version 2.4, date 12/03/2012)	Value in the revised PoA-DD (version 3, date 16/06/2020) and the revised CPA-DD (version 4.1, date 17/08/2020)	DOE Assessment	CO <sub>2</sub> emission factor of the grid electricity in year y : EF <sub>grid,y</sub> (tCO <sub>2</sub> /MWh)	0.5554	0.5692	The updated value is consistent with latest applied methodology AMS.I.D version 18. Hence, accepted
Data/Parameter	Value in the registered PoA-DD (version 2.4, date 12/03/2012) and the registered CPA-DD (version 2.4, date 12/03/2012)	Value in the revised PoA-DD (version 3, date 16/06/2020) and the revised CPA-DD (version 4.1, date 17/08/2020)	DOE Assessment								
CO <sub>2</sub> emission factor of the grid electricity in year y : EF <sub>grid,y</sub> (tCO <sub>2</sub> /MWh)	0.5554	0.5692	The updated value is consistent with latest applied methodology AMS.I.D version 18. Hence, accepted								
<b>Findings</b>	<p>CL 04 was raised during the validation process. Then, the source of data for EF<sub>grid,y</sub> has been revised in section B.4.2 of the revised CPA-DD (version 4.1, date 17/08/2020) to include the year of source of data in line with the PoA-DD. Thus, CL 04 was closed successfully.</p>										
<b>Conclusion</b>	<p>In line with the paragraph 382 of VVS PoA version 02.0, the validation team confirmed that the original baseline is valid and assessment is done as per methodological tool “TOOL11 : Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period (Version 03.0.1 Date 02/03/2012)”.</p>										

#### D.5. Demonstration of eligibility of the CPAs

<b>Means of validation</b>	<p>The eligibility criteria for inclusion of CPAs as depicted in Section K of PoA-DD is checked during the validation process and also during the interview with the responsible person of CME and PPs. A complete list of eligibility criteria has been</p>
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set up in corresponding generic CPA. The validation team assessed the CPA-DD with relevant documents to validate whether the compliance and fulfilment on the established CPA inclusion criteria has been sufficiently justified.

No.	Eligibility Criteria	Means of validation
1.	The Project Activity is a voluntary initiative and not implemented due to mandatory policies or regulations.	The CPA is a voluntary activity, which is not enforced by any mandatory policies or national/local regulations. The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.
2.	The Project Activity falls under one of the following Project Types: 1. Wind power 2. Solar photovoltaic power generation 3. Concentrated solar power 4. Run-of-the-River hydropower 5. Renewable biomass based power generation 6. Biogas based power generation	The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(d) of PS for PoA Version 02.0. The specification of the technology/measure of the CPA are sufficiently verifiable at the CPA level using documents listed by the CME i.e. <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity containing a clear project design description;</li> <li>• Purchase order(s) of the Project Activity's equipment/technology;</li> <li>• Feasibility study or technical-commercial proposal by technology provider.</li> </ul> The CPA No. 1: IFEC Solar PV is a Solar photovoltaic power generation. The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.
3.	The installed electricity generation capacity of the Project Activity is less than or equal to 15 MW. In case of multiple Project Activities under one CPA, the combined installed capacity of all Project Activities under the CPA is less than or equal to 15 MW.	The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(f)(h) of PS for PoA Version 02.0. The applicability and other requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents mentioned in the revised PoA-DD (version 3, date 16/06/2020) are sufficiently verifiable at the CPA level using documents listed by the CME i.e. <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity containing information about the total installed capacity of the Project Activity;</li> <li>• Purchase order(s) of the Project Activity's equipment/technology.</li> </ul> The installed electricity generation capacity of CPA No. 1: IFEC Solar PV is 11 MW. The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for

			PoA and is therefore accepted by the validation team.
	3.a	<p>Additional requirements for Project Activities with both renewable and non-renewable components (e.g. a wind/diesel unit).</p> <p>If the Project Activity has both renewable and non-renewable components, the eligibility limit of 15 MW shall apply only to the renewable component (in line with AMS-I.D, Version 18, Paragraph 6).</p>	<p>The eligibility criteria for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(f)(h) of PS for PoA Version 02.0.</p> <p>The applicability and other requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents mentioned in the revised PoA-DD (version 3, date 16/06/2020) are sufficiently verifiable at the CPA level using documents listed by the CME i.e.</p> <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity containing information about the total installed capacity of the Project Activity's renewable energy component;</li> <li>• Purchase order(s) of the Project Activity's equipment/technology.</li> </ul> <p>The installed electricity generation capacity of CPA No. 1: IFEC Solar PV is 11 MW. The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	3.b	<p>Additional requirements for Project Activities that co-fires fossil fuel.</p> <p>If the Project Activity entails co-firing of fossil fuel(s), the capacity of the entire unit shall not exceed the limit of 15 MW (in line with AMS-I.D, Version 18, Paragraph 6).</p>	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(f)(h) of PS for PoA Version 02.0.</p> <p>The applicability and other requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents mentioned in the revised PoA-DD (version 3, date 16/06/2020) are sufficiently verifiable at the CPA level using documents listed by the CME i.e.</p> <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity containing information about the total installed capacity of the Project Activity (including co-firing capacity);</li> <li>• Purchase order(s) of the Project Activity's equipment/technology.</li> </ul> <p>The installed electricity generation capacity of CPA No. 1: IFEC Solar PV is 11 MW. The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	4.	The Project Activity is a grid-connected facility supplying electricity to the Thai national grid under	The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(i)(k) of PS for PoA Version 02.0.

		<p>Thailand's feed-in tariff/adder policy for Very Small Power Producers (VSPPs).</p>	<p>Regulations for Very Small Power Producers (VSPPs) in Thailand are include requirements related to undertaking local stakeholder consultation and environmental impact analysis as follow</p> <p>1) Fuel combustion technology :</p> <ul style="list-style-type: none"> <li>• Code of Practices (CoP) for total installed capacity &lt; 5 MW</li> <li>• Environmental Safety Assessment (ESA) for total installed capacity 5 to 10 MW</li> <li>• Environmental Impact Assessment (EIA) or Environmental Health Impact Assessment (EHIA) for total installed capacity ≥ 10 MW</li> </ul> <p>2) Other technology (i.e. solar power, wind power, hydro power and etc.) :</p> <ul style="list-style-type: none"> <li>• Code of Practices (CoP)</li> <li>• Initial Environmental Examination (IEE)</li> </ul> <p>The target group for each CPA will be national grid only, which will be verified at the time of CPA inclusion from power purchase agreement or approval from concerned statutory body.</p> <p>The specific requirements related to undertaking local stakeholder consultation and environmental impact analysis are sufficiently verifiable at the CPA level.</p> <p>The CPA No. 1: IFEC Solar PV is a grid-connected facility supplying electricity to the Thai national grid under Thailand's feed-in tariff/adder policy for Very Small Power Producers.</p> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
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	5.	The Project Activity is implemented under a Greenfield scenario (in line with AMS-I-D, Version 18, Paragraph 4).	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(f)(h) of PS for PoA Version 02.0.</p> <p>The applicability and other requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents mentioned in the revised PoA-DD (version 3, date 16/06/2020) are sufficiently verifiable at the CPA level using documents listed by the CME i.e.</p> <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity containing a clear project design description.</li> <li>• Operation license</li> </ul> <p>The CPA No. 1: IFEC Solar PV is implemented under a Greenfield scenario since 1<sup>st</sup> crediting period.</p> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	6.	The Project Activity is not a combined heat and power (co-generation) project (in line with AMS-I-D, Version 18, Paragraph 7).	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(f)(h) of PS for PoA Version 02.0.</p> <p>The applicability and other requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents mentioned in the revised PoA-DD (version 3, date 16/06/2020) are sufficiently verifiable at the CPA level using documents listed by the CME i.e.</p> <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity containing a clear project design description.</li> <li>• Purchase order(s) of the Project Activity's equipment/technology.</li> <li>• Signed PPA.</li> </ul> <p>The CPA No. 1: IFEC Solar PV is a Solar photovoltaic power generation, is not a combined heat and power (co-generation) project.</p> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	7.	The proposed Project Activity meets the Assessment of debundling for small-scale project activities, Version 04.0.	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(n) of PS for PoA Version 02.0.</p> <p>The debundling conditions of the CPA can be verified at CPA level by checking the documents listed by the CME, at the time</p>

			<p>of CPA inclusion.</p> <p>The CPA No. 1: IFEC Solar PV meets the Assessment of debundling for small-scale project activities since 1<sup>st</sup> crediting period. The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	8.	The Project Activity's boundary is within the geographical territory of Thailand.	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(a) of PS for PoA Version 02.0.</p> <p>The geographical boundary of the CPA is Thailand which is sufficiently verifiable at the CPA level.</p> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	9.	<p>The additionality for each Project Activity is demonstrated by any one of the following approaches:</p> <p>Approach 1:</p> <ul style="list-style-type: none"> <li>Demonstration of additionality of microscale project activities ;</li> </ul> <p>Approach 2:</p> <ul style="list-style-type: none"> <li>As per Demonstration of additionality of small-scale project activities, Paragraph 10, additionality is demonstrated based on the investment barrier analysis.</li> <li>In case of bundled Project Activities within one CPA, additionality assessment using Approach 2 might be carried out at CPA level or at Project Activity level depending on how the underlying investment was structured.</li> </ul> <p>Approach 3:</p> <ul style="list-style-type: none"> <li>As per Demonstration of additionality of small-scale project activities, Paragraph 11, Project Activities based on solar technologies (i.e.</li> </ul>	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(g)(m) of PS for PoA Version 02.0.</p> <p>The CME has included conditions that would systematically demonstrate additionality of CPAs under the proposed CDM PoA in the eligibility criteria for inclusion of CPAs in the registered PoA. For renewal of the PoA period of a registered CDM PoA, the CME is not required to reassess the additionality of the PoA nor update the section of the PoA-DD relating to additionality as per paragraph 285 of PS for PoA version 02.0.</p> <p>The information related to additionality stated in the revised PoA-DD (version 3, date 16/06/2020) was found to be in line with the registered PoA-DD.</p> <p>The CPA will be checked to be in line with guidelines for demonstrating additionality of microscale project activities (EB 63, Annex 23) or guidelines for demonstrating additionality of small-scale project activities (EB 63, Annex 24) at the time of CPA inclusion to ensure that CPAs meet the additionality demonstration requirements as defined in Section C of the revised PoA-DD (version 3, date 16/06/2020).</p> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>

		Technology Types 2 and 3) and off-shore wind technology (as defined under Section A.3 of the PoA-DD) with an installed capacity of up to 15 MW (subject to compliance with Eligibility Criteria No. 3) are automatically defined as additional.	
	10.	The proposed Project Activity does not lead to double counting of emission reductions.	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(b)(c) of PS for PoA Version 02.0.</p> <p>The double counting will be avoided and verified at CPA level by cross checking the unique identification number of standalone CDM Project activity, the part of a bundled CDM Project activity, another registered CDM PoA, project activity under another emission reduction crediting scheme (e.g. voluntary carbon markets).</p> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	11.	The starting date of the Project Activity is not before the date of commencement of validation of the PoA, i.e. the date on which the POA DD is first published for global stakeholder consultation (in line with the "Glossary of CDM Terms", Version 10).	<p>The eligibility criterion for inclusion of corresponding CPAs in the CDM PoA are defined as per paragraph 124(e) of PS for PoA Version 02.0.</p> <p>The start date of the CPA will be considered as any date after the date of commencement of validation of the PoA, when the CME or project implementer has committed to expenditures related to the CPA implementation.</p> <p>The start date of the CPA is sufficiently verifiable at the CPA level using documents listed by the CME i.e.</p> <ul style="list-style-type: none"> <li>• Legally binding contract between the Project Entity and a third party related to the implementation or construction of the Project Activity;</li> <li>• Purchase order(s) of the Project Activity's equipment/technology;</li> <li>• Any other significant purchase order, contract or payment evidence related to the construction of the Project Activity.</li> </ul> <p>The criteria were found to be in accordance with validation requirements related to renewal of PoA in the VVS for PoA and is therefore accepted by the validation team.</p>
	<p>The CME has updated the eligibility criteria in accordance with generic CPA and confirmed that the proposed CPAs are acceptable for inclusion.</p> <p>The updated eligibility criteria have been reviewed against the generic CPA contained in the revised PoA-DD (version 3, date 16/06/2020), and found consistent. The validation team checked the description in section F of the revised</p>		

	CPA-DD (version 4.1, date 17/08/2020) and found reasonable, subsequently, it's confirmed that the CPAs fulfill the eligibility criteria.
<b>Findings</b>	There are no CARs/CLs raised in this section.
<b>Conclusion</b>	The validation team confirmed that the CPA meets all the inclusion criteria as per the revised PoA-DD (version 3, date 16/06/2020).

#### D.6. Estimated emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>The validation team checked section B.4 of the revised CPA-DD (version 4.1, date 17/08/2020) against the methodology AMS.I.D version 18 and corresponding generic CPA.</p> <p>The emission reductions generated by the Project were calculated in accordance with the methodology AMS.I.D version 18.</p> <p>As per the methodology, the Emission reductions are calculated according to the following equation:</p> $ER_y = BE_y - PE_y - LE_y$ <p>Where:</p> <p>ER<sub>y</sub> Emission reductions in year y (tCO<sub>2</sub>/y)  BE<sub>y</sub> Baseline emissions in year y (tCO<sub>2</sub>/y)  PE<sub>y</sub> Project emissions in year y (tCO<sub>2</sub>/y)  LE<sub>y</sub> Leakage emissions in year y (tCO<sub>2</sub>/y)</p> <p><b>Baseline Emissions</b></p> <p>As per the methodology AMS.I.D version 18, baseline emissions include only CO<sub>2</sub> emissions from electricity generation in power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by grid-connected power plants.</p> $BE_y = EG_{PJ,y} \times EF_{grid,y}$ <p>Where:</p> <p>BE<sub>y</sub> Baseline Emissions in year y (tCO<sub>2</sub>)  EG<sub>PJ,y</sub> Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the Project Activity(ies) under the CPA in year y (MWh)  EF<sub>grid,y</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 (tCO<sub>2</sub>/MWh)</p> <p>The average annual baseline emissions are calculated as follows:</p> $ \begin{aligned} BE_y &= EG_{PJ,y} \times EF_{grid,y} \\ &= 13,458.48 \text{ MWh} \times 0.5692 \text{ tCO}_2\text{e/MWh} \\ &= 7,661 \text{ tCO}_2\text{e} \end{aligned} $ <p><b>Project Emission</b></p> <p>Since the CPAs are a solar PV project activities and will neither have backup diesel generator nor would consume fossil fuel, the project emissions are zero.</p> $PE_y = 0$ <p><b>Leakage Emission</b></p> <p>Since the CPAs are solar PV project activities, the leakage emissions are zero.</p> $LE_y = 0$ <p><b>Emission reduction</b></p>
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	<p>The emission reductions at the CPA level are calculated as follows:</p> $ER_y = BE_y - PE_y - LE_y$ $= 7,661 - 0 - 0$ $= 7,661 \text{ tCO}_2\text{e}$
<b>Findings</b>	<p>There are no CARs/CLs raised in this section. (Refer to section D.3., CAR 02 was raised and closed successfully.)</p>
<b>Conclusion</b>	<p>The validation team confirmed that the CPA-DD correctly lists assumption and data used by the PP for estimating emission reduction including their references and sources. Source of data and assumptions are correctly quoted and interpreted in the CPA-DD. All values used in the CPA-DD are considered reasonable in the context of the proposed CDM PoA. The baseline methodology and corresponding tools have been correctly applied to calculate project, baseline and leakage emissions, and emission reductions. All estimates of the baseline emissions can be replicated using the data and parameter values provided in the CPA-DD.</p>

#### D.7. Validity of monitoring plan

<b>Means of validation</b>	<p>The validation team checked section B.5 of the revised CPA-DD (version 4.1, date 17/08/2020) against the methodology AMS.I.D version 18 and corresponding generic CPA. Validation team confirmed from the document review that the list of parameters including the means of monitoring is described in accordance with the applied methodology.</p> <p>The Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (<math>EG_{PJ,y}</math>) will be monitored in the monitoring plan contained in section B.5 of the revised CPA-DD (version 4.1, date 17/08/2020). This parameter will be monitored continuously by electricity meter (installed onsite), and recorded monthly, and the records will be crosschecked with records for sold/purchased electricity (e.g. invoices/receipts) to/from the grid.</p> <p>The monitoring plan is still the same in consistent with the latest methodology and hence valid for the next crediting period. The information provided has allowed the validation team to confirm that the monitoring plan is in line with AMS-I.D, version 18.</p>
<b>Findings</b>	<p>There are no CARs/CLs raised in this section.</p>
<b>Conclusion</b>	<p>The validation team confirmed that the monitoring plan included in the revised CPA-DD (version 4.1, date 17/08/2020) is valid as per the applied methodology AMS.I.D version 18 and conforms the revised PoA-DD (version 3, date 16/06/2020).</p>

#### D.8. Crediting period

<b>Means of validation</b>	<p>The duration of registered PoA is 28 years starting from 14/09/2011 to 13/09/2039 and the renewal of the crediting period is every 7 years. The PoA has been registered on 15/05/2012. The 1<sup>st</sup> crediting period has been started on 15/05/2012 and end date is 14/05/2019, then the 2<sup>nd</sup> crediting period is starting on 15/05/2019 and end date is 14/05/2026. It is also been confirmed that the next crediting period of the registered PoA commences on the day immediately after the expiration of the current crediting period.</p> <p>The inclusion date of this CPA is on 15/05/2012. The expected operational lifetime of both Project Activities under this CPA is 25 years. The 1<sup>st</sup> crediting period has been started on 01/07/2012 and end date is 30/06/2019, then the 2<sup>nd</sup> crediting period is starting on 01/07/2019 and end date is 30/06/2026. It is also been confirmed that the next crediting period of a CPA shall start on the day immediately after the expiration of the current period regardless of the date when the period is deemed renewed.</p>
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<b>Findings</b>	There are no CARs/CLs raised in this section.
<b>Conclusion</b>	In line with the paragraph 283 of PCP PoA, version 02.0, the validation team confirmed that the second crediting period of a CPA shall start on the day immediately after the expiration of the current period regardless of the date when the period is deemed renewed.

#### D.9. CME and project participants

<b>Means of validation</b>	<p>The names of the CME and the project participants were checked from UN homepage.  <a href="https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/TRXICK8M93E2LBY1UWPVZ05O6ADJHS/view">https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/TRXICK8M93E2LBY1UWPVZ05O6ADJHS/view</a></p> <p>The names of the CME in the PoA-DD is Carbon Coordinating Managing Entity Limited (CCME) as it was stated in the latest MoC, letter of approval by TGO (the DNA of Thailand) and with registered PoA-DD for previous crediting period.</p>
<b>Findings</b>	<p>Cross checking the CME and project participants name from the list of project participants and CME of the PoA from the view page at UNFCCC website and latest MoC statement.</p> <ul style="list-style-type: none"> <li><i>The revised PoA-DD (version 3, date 16/06/2020) specify the information of Asian Development Bank as Trustee of the Future Carbon Fund and Swedish Energy Agency as per the latest CDM-MOC-FORM: ANNEX 2 submitted on 07/11/2018.</i></li> <li><i>The revised PoA-DD (version 3, date 16/06/2020) specify the information of Carbon Coordinating Managing Entity Limited and South Pole Carbon Asset Management Ltd. as per the latest CDM-MOC-FORM: ANNEX 2 submitted on 03/09/2015. The E-mail &lt;registration@southpolecarbon.com&gt; is used for communication with UNFCCC.</i></li> </ul> <p>At present, the address of CME (<i>Carbon Coordinating Managing Entity Limited</i>) have been changed to 318 Evergreen Place, 3<sup>rd</sup> Floor Unit 3A, Thanon Petchaburi, Ratchthewi, Bangkok. Under situation of COVID19 pandemic, the process of request change for the MOC including the process to acquire the physical signatures from different countries (Thailand and Switzerland) is in progress with the expected timeline to upload the request for changes of the MOC shall be done within October 2020. The CDM-MOC-FORM to request changes to the modalities of communication as per paragraph 183 of CDM PCP PoA (version 2) shall be confirmed during next verification. Thus, FAR 01 was raised.</p>
<b>Conclusion</b>	<p>In line with the paragraph 384 of VVS PoA version 02.0, the validation team confirmed that the names of the CME (<i>Carbon Coordinating Managing Entity Limited</i>) and the project participants (<i>South Pole Carbon Asset Management Ltd. , Asian Development Bank as Trustee of the Future Carbon Fund and Swedish Energy Agency</i>) in the revised PoA-DD (version 3, date 16/06/2020) are consistent with the names of the CME and the project participants in the latest version of the MoC statement.</p> <p>At present, the address of CME (<i>Carbon Coordinating Managing Entity Limited</i>) have been changed, the process of request change for the MOC is in progress, CDM-MOC-FORM shall be confirmed during next verification as per FAR 01.</p>

**D.10. Post-registration changes**

Type of post-registration changes (PRCs)	Confirmation (Y/N)	Validation report for PRCs	
		Version	Completion date
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents <sup>1</sup>	N		
Corrections	N		
Changes to the start date of the crediting period of component project activity	N		
Inclusion of monitoring plan	N		
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from applied methodologies, standardized baselines, or other methodological regulatory documents	N		
Changes to the project design	N		
Changes specific to afforestation and reforestation activities	N		
Others (please specify)	N		

**SECTION E. Internal quality control**

This process is implemented in line with the procedure for internal quality control prescribed by FID-MASCI Quality Manual and relevant procedures.

Before the submission of the final validation report a technical review of the whole validation procedure was carried out. The technical reviewer is competent GHG auditor being appointed for the scope of this project. The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may have been confirmed or revised. Furthermore, reporting improvements might have been achieved.

After the successful technical review, an overall assessment of the complete validation has to be carried out by the Vice President of System Certification Department or the Manager of Climate Change Service section of FID-MASCI. This final approval has to be carried out prior to request for renewal of crediting period of CPA.

**SECTION F. Validation opinion**

FID-MASCI has performed a validation for renewal of crediting period of CPA. Standard auditing techniques have been used for the validation process. The validation has been performed following the requirements of the latest version of the CDM VVS for PoA version 2.0. The review of the CPA-DD, subsequent follow-up interviews, and further validation of references have provided validation team with sufficient evidence to determine the validity of the original baseline and the update of data & parameters. The findings raised during this validation have been closed satisfactorily. In our opinion, the CPA meets all relevant UNFCCC requirements and hence the validation team recommends the renewal of the crediting period of CPA of this CPA.


<sup>1</sup> Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

## Appendix 1. Abbreviations

Abbreviations	Full texts
AMS	Approved Small Scale Methodologies
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CM	Combined Margin
CME	Coordinating/Managing Entity
CPA	Component Project Activity
CPA DD	Component Project Activity Design Document
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
EPC	Engineering, Procurement and Construction
FAR	Forward Action Request
GHG	Green House Gas
IPCC	Intergovernmental Panel on Climate Change
MoC	Modalities of Communication
ODA	Official Development Assistance
OM	Operating Margin
PCP	Project Cycle Procedure
PCP for PoA	CDM Project Cycle Procedure for Programme of Activities
PE	Project Emission
PoA	Programme of Activities
PoA DD	Programme of Activities Design Document
PP	Project Participant
PS	Project Standard
PS for PoA	Project Standard for Programme of Activities
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
VVS for PoA	Validation and Verification Standard for Programme of Activities

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

### 1) Ms.Atchada Ngeimvijawat (Team Leader)

	Management System Certification Institute (Thailand) : Climate Change Service Section (CCS)
	Form : <b>Statement of Competence and Appointment</b>
	Document Number : CCS-FM-009-05
	Revision : 1
	Effective Date: 29 June 2016

#### Statement of Competence and Appointment

Title: Ms. Name: Atchada Last name: Ngeimvijawat  
He/She satisfied the qualification requirements as specified in CCS-DP-009 and is hereby appointed as


- ☒ Lead validator / Lead verifier
 ☒ Validator / Verifier
 ☒ Technical reviewer  
☐ Financial expert
 ☒ Technical expert
 ☒ Local expert (Thailand)

#### Qualification:

Education background	Master of Engineering (Environmental Engineering)
Work experiences	<ul style="list-style-type: none"> <li>Total 20 years               <ul style="list-style-type: none"> <li>Environmental Engineering at consulting firm</li> <li>&gt; 20 man-days as Lead auditor at MASCI</li> </ul> </li> </ul>
Training	<ul style="list-style-type: none"> <li>Successfully passed CDM validation and verification/certification training course from KFQ</li> <li>Successfully passed practical training and examination on CDM validation and verification/certification training course</li> </ul>
CDM experiences	<ul style="list-style-type: none"> <li>Participated as a team member in 5 projects of practical training on CDM validation and verification/certification</li> <li>Participated as a team leader in 3 projects of practical training on CDM validation/verification</li> <li>Acting as team leader in 1 project of CDM verification (CDM project no. 1558)</li> </ul>

#### Competence in specific technical areas within CDM sectoral scopes:

Sectoral Scope	Technical Area	Result of competence analysis
SS1 Energy industries (renewable - / non-renewable sources)	TA1.1 Thermal energy generation	<input checked="" type="checkbox"/>
	TA1.2 Renewables	<input checked="" type="checkbox"/>
SS13 Waste handling and disposal	TA13.1 Solid waste and wastewater	<input checked="" type="checkbox"/>
	TA13.2 Manure	<input checked="" type="checkbox"/>

Evaluated by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Reviewed by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Approved by Name: Mr. Thanit P. Signature:  Position: Vice President of SCD Date: 16/03/2020
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This statement is valid until 16/03/2020 to 15/03/2022 (2 years).

## 2) Mr. Teerakul Boonyong (Validator)

	Management System Certification Institute (Thailand) : Climate Change Service Section (CCS)
	Form : <b>Statement of Competence and Appointment</b>
	Document Number : CCS-FM-009-05
	Revision : 1
	Effective Date: 29 June 2016

**Statement of Competence and Appointment**

Title: Mr.      Name: Teerakul      Last name: Boonyong  
 He/She satisfied the qualification requirements as specified in CCS-DP-009 and is hereby appointed as

- ☐ Lead validator / Lead verifier      ☒ Validator / Verifier      ☐ Technical reviewer  
☐ Financial expert      ☒ Technical expert      ☒ Local expert (Thailand)

**Qualification:**

Education background	B. Eng. (Mechanical Engineering) M.B.A. (International Programme)
Work experiences	<ul style="list-style-type: none"> <li>• Total 20 years</li> <li>• &gt; 20 man-days as Lead auditor at MASCI</li> </ul>
Training	Successfully passed CDM accreditation and requirement, GHG validation or verification, and GHG Measuring and Calculation
CDM experiences	<ul style="list-style-type: none"> <li>• Participated as a team member in 3 projects of practical training on CDM validation/verification</li> <li>• Acting as team member in 1 project of CDM verification (CDM project no. 1558)</li> </ul>


**Competence in specific technical areas within CDM sectoral scopes:**

Sectoral Scope	Technical Area	Result of competence analysis
SS1 Energy industries (renewable - / non-renewable sources)	TA1.1 Thermal energy generation	<input checked="" type="checkbox"/>
	TA1.2 Renewables	<input checked="" type="checkbox"/>
SS13 Waste handling and disposal	TA13.1 Solid waste and wastewater	<input checked="" type="checkbox"/>
	TA13.2 Manure	<input type="checkbox"/>

Evaluated by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Reviewed by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Approved by Name: Mr. Thanit P. Signature:  Position: Vice President of SCD Date: 16/03/2020
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This statement is valid until 16/03/2020 to 15/03/2022 (2 years).

## 3) Mr.Naris Lapsunthornphitak (Validator)

	Management System Certification Institute (Thailand) : Climate Change Service Section (CCS)
	Form : <b>Statement of Competence and Appointment</b>
	Document Number : CCS-FM-009-05
	Revision : 1
	Effective Date: 29 June 2016

## Statement of Competence and Appointment

Title: Mr.      Name: Naris      Last name: Lapsunthornphitak  
 He/She satisfied the qualification requirements as specified in CCS-DP-009 and is hereby appointed as

- ☐ Lead validator / Lead verifier      ☒ Validator / Verifier      ☐ Technical reviewer  
☐ Financial expert      ☒ Technical expert      ☒ Local expert (Thailand)

## Qualification:

Education background	Master of Engineering (Industrial Engineering)
Work experiences	<ul style="list-style-type: none"> <li>Total 14 years               <ul style="list-style-type: none"> <li>Accredited Consultant, Energy Engineer/Project engineer</li> <li>&gt; 20 man-days as Lead auditor at MASCI</li> </ul> </li> </ul>
Training	<ul style="list-style-type: none"> <li>Successfully passed CDM accreditation and requirement, GHG validation or verification, and GHG Measuring and Calculation</li> </ul>
CDM experiences	<ul style="list-style-type: none"> <li>Participated as a team member in 3 projects of practical training on CDM validation/verification</li> <li>Acting as a team member in 1 project of CDM verification (CDM project no. 1558)</li> </ul>

## Competence in specific technical areas within CDM sectoral scopes:

Sectoral Scope	Technical Area	Result of competence analysis
SS1 Energy industries (renewable - / non-renewable sources)	TA1.1 Thermal energy generation	<input checked="" type="checkbox"/>
	TA1.2 Renewables	<input checked="" type="checkbox"/>
SS13 Waste handling and disposal	TA13.1 Solid waste and wastewater	<input checked="" type="checkbox"/>
	TA13.2 Manure	<input type="checkbox"/>

Evaluated by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Reviewed by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Approved by Name: Mr. Thanit P. Signature:  Position: Vice President of SCD Date: 16/03/2020
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This statement is valid until 16/03/2020 to 15/03/2022 (2 years).

## 4) Mr.Parinya Seanglert (Technical Expert)

	Management System Certification Institute (Thailand) : Climate Change Service Section (CCS)
	Form : Statement of Competence and Appointment
	Document Number : CCS-FM-009-05
	Revision : 1
	Effective Date: 29 June 2016

## Statement of Competence and Appointment

Title: Mr. Name: Parinya Last name: Seanglert  
He/She satisfied the qualification requirements as specified in CCS-DP-009 and is hereby appointed as

- ☐ Lead validator / Lead verifier
 ☐ Validator / Verifier
 ☐ Technical reviewer  
☐ Financial expert
 ☒ Technical expert
 ☐ Local expert (Thailand)

## Qualification:

Education background	B. Eng, Electrical engineer (Power)
Work experiences	<ul style="list-style-type: none"> <li>Total 7 years               <ul style="list-style-type: none"> <li>Electrical Engineer 6 years</li> <li>&gt; 20 man-days as Auditor at MASCI</li> </ul> </li> </ul>
Training	<ul style="list-style-type: none"> <li>Electrical installation in thai standard (ISBN-2545)</li> <li>PEA medium voltage Substation design</li> <li>PEA Electrical installation standard</li> <li>E-GAT Specification design and standard</li> <li>Maintenance of High voltage Substation equipment</li> <li>230 kV GIS substation by Siemens</li> <li>IRCA Certified ISO 9001 : 2015 Lead Auditor Training Course</li> </ul>
CDM experiences	N/A

## Competence in specific technical areas within CDM sectoral scopes:

Sectoral Scope	Technical Area	Result of competence analysis
SS1 Energy industries (renewable - / non-renewable sources)	TA1.1 Thermal energy generation	<input checked="" type="checkbox"/>
	TA1.2 Renewables	<input checked="" type="checkbox"/>
SS13 Waste handling and disposal	TA13.1 Solid waste and wastewater	<input type="checkbox"/>
	TA13.2 Manure	<input type="checkbox"/>

Evaluated by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Reviewed by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Approved by Name: Mr. Thanit P. Signature:  Position: Vice President of SCD Date: 16/03/2020
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This statement is valid until 16/03/2020 to 15/03/2022 (2 years).

## 5) Ms.Mattana Khemthong (Trainee)

Ms. Mattana Khemthong performs as trainee in the validation team, therefore the statement of competence and appointment was not issued.

## 6) Mr.Johannes Smolders (Technical reviewer)

	Management System Certification Institute (Thailand) : Climate Change Service Section (CCS)
	Form : <b>Statement of Competence and Appointment</b>
	Document Number : CCS-FM-009-05
	Revision : 1
	Effective Date: 29 June 2016

## Statement of Competence and Appointment

Title: MR. Name: Johannes Last name: Smolders

He/She satisfied the qualification requirements as specified in CCS-DP-009 and is hereby appointed as

- ☒ Lead validator / Lead verifier
 ☒ Validator / Verifier
 ☒ Technical reviewer  
☐ Financial expert
 ☒ Technical expert
 ☐ Local expert (Thailand)

## Qualification:

Education background	BSc Environmental Sciences (Hons) BSc Analytical Chemistry MSc Biology (Environmental Sciences)
Work experiences	<ul style="list-style-type: none"> <li>Total 37 years               <ul style="list-style-type: none"> <li>CDM Lead Auditor and Technical Reviewer</li> <li>&gt; 20 man-days as Lead Auditor</li> </ul> </li> </ul>
Training	CDM validation and Verification/Certification
CDM experiences	Acting as Team Leader in more than 13 CDM projects and technical reviewer for CDM project

## Competence in specific technical areas within CDM sectoral scopes:

Sectoral Scope	Technical Area	Result of competence analysis
SS1 Energy industries (renewable - / non-renewable sources)	TA1.1 Thermal energy generation	<input checked="" type="checkbox"/>
	TA1.2 Renewables	<input checked="" type="checkbox"/>
SS13 Waste handling and disposal	TA13.1 Solid waste and wastewater	<input checked="" type="checkbox"/>
	TA13.2 Manure	<input checked="" type="checkbox"/>

Evaluated by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Reviewed by Name: Mr. Teerakul B. Signature:  Position: Senior Manager of CCS Date: 16/03/2020	Approved by Name: Mr. Thanit P. Signature:  Position: Vice President of SCD Date: 16/03/2020
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This statement is valid until 16/03/2020 to 15/03/2022 (2 years).

### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UNFCCC	Registered POA-DD (Version 2.4, Date 12/03/2012) and Appendix 1 – PDD form revised part II Generic component project activity (CPA)	-	UNFCCC
2	UNFCCC	Registered CPA-DD (Version 2.4, Date 12/03/2012) for CPA No. 1: IFEC Solar PV	-	UNFCCC
3	Carbon Coordinating Managing Entity Limited	Initially updated PoA-DD version 1, the revised PoA-DD version 2 and the revised PoA-DD version 3	The updated PoA-DD (version 1, date 05/03/2020), The revised PoA-DD (version 2, date 19/05/2020), and The revised PoA-DD (version 3, date 16/06/2020)	CME
4	Carbon Coordinating Managing Entity Limited	Initially updated CPA- DD version 1, the revised CPA-DD version 2, the revised CPA-DD version 3 and the revised CPA-DD version 4	The updated CPA-DD (version 1, date 06/03/2020), The revised CPA-DD (version 2, date 21/05/2020), and The revised CPA-DD (version 3, date 16/06/2020) The revised CPA-DD (version 4, date 02/07/2020) The revised CPA-DD (version 4.1, date 17/08/2020)	CME
5	Carbon Coordinating Managing Entity Limited	Emission Reduction calculation sheet (Ex ante ER cal_CP2_IFEC Solar CPA) (Version 1 Date 06/03/2020)	Emission Reduction calculation sheet (Ex ante ER cal_CP2_IFEC Solar CPA) (Version 1 Date 06/03/2020)	CME
6	UNFCCC	CDM project standard for programmes of activities (Version 02.0 Date 29/11/2018)	EB 101, Annex 3	UNFCCC
7	UNFCCC	CDM validation and verification standard for programmes of activities (Version 02.0 Date 29/11/2018)	EB 101, Annex 4	UNFCCC
8	UNFCCC	CDM project cycle procedure for programmes of activities (Version 02.0 Date 29/11/2018)	EB 101, Annex 17	UNFCCC
9	UNFCCC	Methodology AMS-I.D. Grid connected renewable electricity generation (Version 18.0 Date 28/11/2014)	EB 81, Annex 24	UNFCCC
10	UNFCCC	TOOL03 : Tool to calculate project or leakage CO <sub>2</sub> emissions from	EB 96, Annex 4	UNFCCC

No.	Author	Title	References to the document	Provider
		fossil fuel combustion (Version 03.0 Date 22/09/2017)		
11	UNFCCC	TOOL07 : Tool to calculate the emission factor for an electricity system (Version 07.0 Date 31/08/2018)	EB 100, Annex 4	UNFCCC
12	UNFCCC	TOOL10 : Tool to determine the remaining lifetime of equipment (Version 01 Date 16/10/2009)	EB 50, Annex 15	UNFCCC
13	UNFCCC	TOOL11 : Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period (Version 03.0.1 Date 02/03/2012)	EB 66, Annex 47	UNFCCC
14	UNFCCC	TOOL20 : Assessment of debundling for small-scale project activities (Version 04.0 Date 16/04/2015)	EB 83, Annex 13	UNFCCC
15	UNFCCC	TOOL32 : Positive lists of technologies (Version 02.0 Date 28/11/2019)	EB 105, Annex 5	UNFCCC
16	UNFCCC	General guidelines for SSC CDM methodologies (Version 23.0 Date 12/09/2019)	EB 104, Annex 5	UNFCCC
17	UNFCCC	Application of small-scale CDM project activity thresholds at the renewal of the crediting period of a small-scale project activity or a CPA (Version 01.0 , Date 04/10/2013)	EB 75, Annex 16	UNFCCC
18	TGO	Thailand Grid Emission Factor for GHG Reduction Project/Activity (Date 28/09/2017)	-	TGO
19	-	Solar PV specification of JKR & RPV	-	CME
20	-	Single-line diagram of JKR & RPV	-	CME
21	-	Signed Power Purchase Agreement (PPA) of JKR & RPV	-	CME
22	-	Contract between JKR & RPV and CCME	-	CME
23	-	Initial Environmental Evaluation (IEE) of JKR & RPV	-	CME
24	-	Commissioning report and operation license of JKR & RPV	-	CME

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

**Table 1. CL from this validation**

<b>CL ID</b>	CL01	<b>Section no.</b>	D.2	<b>Date:</b> 10/08/2020
<b>Description of CL</b>				
<p>The revised CPA-DD (version 4, date 02/07/2020), the geographic coordinates of project activities implemented under CPA No. 1: IFEC Solar PV is 14.312°N / 99.544°E (Decimal Degrees) or equivalent 14°18'43.2"N / 99°32'38.4"E (Degrees Minutes Seconds). However, CPA No. 1: IFEC Solar PV consists of 2 project activities. Both project activities under the CPA apply the same technology and equipment. Each project activity consists of 55,000 amorphous silicon (a-Si) thin film modules with a capacity of 100 W each, amounting to a total installed capacity of 5.5 MW and a total solar panel surface area of 84,700 m<sup>2</sup> for each project activity under the CPA. Thus,</p> <ul style="list-style-type: none"> <li>the geographic coordinates of each project activity has to be clarified in section A.2.</li> <li>the geographical boundary of each project activity has to be clarified in Figure 1.</li> </ul>				
<b>CME response</b>				<b>Date:</b> 17/08/2020
<p>The following details have been revised in the revised CPA-DD</p> <ul style="list-style-type: none"> <li>The geographic coordinates of each project activity have been updated in section A.2 by using the office of each project activity as a pinpoint.</li> <li>The geographic boundary of each project activity has been indicated in Figure 1. The blue and red line represents the project boundary of the Project Activity No. 1 and Project Activity No. 2, respectively.</li> </ul>				
<b>Documentation provided by CME</b>				
The revised CPA-DD (version 4.1, date 17/08/2020)				
<b>DOE assessment</b>				<b>Date:</b> 30/08/2020
<p>The geographic coordinates of project activities under the CPA No. 1: IFEC Solar PV have been updated in section A.2 by using the office of each project activity as a pinpoint. The geographic coordinates of project activity No.1 is 14.310498 N / 99.543018 E. The geographic coordinates of project activity No.2 is 14.313632 N / 99.542936 E.</p> <p>The geographical boundary of project activities under the CPA No. 1: IFEC Solar PV have been indicated in Figure 1 by using the blue and red line represents the project boundary of the Project Activity No. 1 and Project Activity No. 2, respectively.</p> <p>Thus, CL 01 was closed successfully.</p>				
<b>CL ID</b>	CL02	<b>Section no.</b>	D.2	<b>Date:</b> 10/08/2020
<b>Description of CL</b>				
The information related to capacity of PV module has to be clarified in the table provided in section A.3 of the revised CPA-DD (version 4, date 02/07/2020).				
<b>CME response</b>				<b>Date:</b> 17/08/2020
The detail for the capacity and number of the installed PV module of each Project Activity has been provided in section A.3 of the revised CPA-DD.				
<b>Documentation provided by CME</b>				
The revised CPA-DD (version 4.1, date 17/08/2020)				
<b>DOE assessment</b>				<b>Date:</b> 30/08/2020

The detail for the capacity and number of the installed PV module of each Project Activity has been provided in section A.3 of the revised CPA-DD (version 4.1, date 17/08/2020) as follows.		
• Nominal rated power per module (nameplate capacity)	100	W
• Number of modules	55,000	Modules
• Total rated power output	5,500,000	W
Thus, CL 02 was closed successfully.		

<b>CL ID</b>	CL03	<b>Section no.</b>	D.2	<b>Date:</b> 10/08/2020
<b>Description of CL</b>				
CPA No. 1: IFEC Solar PV consists of 2 project activities. The boundary of each project activity has to be clarified in Figure 2 of the revised CPA-DD (version 4, date 02/07/2020).				
<b>CME response</b>				<b>Date:</b> 17/08/2020
The project boundary of each project activity has been provided as per Figure 2 and Figure 3 in section B.2 of the revised CPA-DD.				
<b>Documentation provided by CME</b>				
The revised CPA-DD (version 4.1, date 17/08/2020)				
<b>DOE assessment</b>				<b>Date:</b> 30/08/2020
The project boundary of each project activity has been provided as per Figure 2 and Figure 3 in section B.2 of the revised CPA-DD (version 4.1, date 17/08/2020). Thus, CL 03 was closed successfully.				

<b>CL ID</b>	CL04	<b>Section no.</b>	D.4	<b>Date:</b> 10/08/2020
<b>Description of CL</b>				
The revised CPA-DD (version 4, date 02/07/2020) state that source of data for $EF_{grid,y}$ is an official data published by the Thai DNA. However, the years of source of data has to be indicated in line with the PoA-DD as shown below.				
<ul style="list-style-type: none"> <li>Official data published by the Thai DNA based on data for following years: [YYYY, YYYY and YYYY].</li> </ul>				
<b>CME response</b>				<b>Date:</b> 17/08/2020
The source of data for $EF_{grid,y}$ has been revised in section B.4.2 of the revised CPA-DD to include the year of the applied data.				
<b>Documentation provided by CME</b>				
The revised CPA-DD (version 4.1, date 17/08/2020)				
<b>DOE assessment</b>				<b>Date:</b> 30/08/2020
The source of data for $EF_{grid,y}$ has been revised in section B.4.2 of the revised CPA-DD (version 4.1, date 17/08/2020) to include the year of source of data in line with the PoA-DD as shown below.				
<ul style="list-style-type: none"> <li>Official data published by the Thai DNA based on data of following years: 2014, 2015 and 2016</li> </ul>				
Thus, CL 04 was closed successfully.				

Table 2. CAR from this validation

CAR ID	CAR 01	Section no.	D.2.	Date: 30/04/2020
<b>Description of CAR</b>				
<p>Comparing the information provided in the Registered CPA-DD (Version 2.4 Date 12/03/2012) for CPA No. 1: IFEC Solar PV and the updated CPA-DD (Version 1 Date 06/03/2020), some issues were found as follows:</p> <ul style="list-style-type: none"> <li>Model of PV module identified as "SG-NH 100-GG", which is incorrect model code.</li> <li>Technology description of Inverter and Transformer stated in section A.3 of the updated CPA-DD (version 1, date 06/03/2020) have been changed. Nevertheless, the specifications provided by CME were not updated.</li> <li>Technology description of Combiners, DC Cabinet, HV 24KV switch Gear, Controller/Monitoring System and Cables MV (AC/DC) were not stated in section A.3 of the updated CPA-DD (version 1, date 06/03/2020).</li> </ul>				
<b>CME response</b>				<b>Date: 21/05/2020</b>
<p>The following details of installed equipment have been updated in section A.3 of the CPA-DD, Version 2.</p> <ul style="list-style-type: none"> <li>Model of PV module</li> <li>Manufacturer and model of inverter and transformer</li> <li>Combiners</li> <li>DC Cabinet</li> <li>Switchgear</li> <li>Controller/Monitoring system</li> <li>Cables MV (AC/DC)</li> </ul>				
<b>Documentation provided by CME</b>				
CPA-DD, Version 2 date 21/05/2020				
<b>DOE assessment</b>				<b>Date: 14/06/2020</b>
<p>Technology description stated in section A.3 of the revised CPA-DD (Version 2 date 21/05/2020) was corrected. EPC contract, specifications and pictures were provided by CME.</p> <ul style="list-style-type: none"> <li>Inverter (Manufacturer : KACO , Model : XP500-HV TL)</li> <li>Transformer (Manufacturer : Charoengchai Transformer Co.,Ltd. , Model : Hermetically Sealed without Gas Cushion)</li> <li>Combiners (Manufacturer : Cooper Bussman)</li> <li>DC Cabinet (Manufacturer : PMK)</li> <li>HV 24KV switch Gear (Manufacturer : ABB)</li> <li>Controller/Monitoring System (Manufacturer : National Instrument)</li> <li>Cables MV (AC/DC) (Manufacturer : MCI)</li> </ul> <p>Nevertheless, the model of PV module still was identified as "SG-NH 100-GG", which is incorrect model code.</p>				
<b>Project participant response (2<sup>nd</sup> round)</b>				<b>Date: 16/06/2020</b>
The model of PV module has been revised to be SG-HN100-GG in section A.3 of the CPA-DD, Version 3.				
<b>Documentation provided by project participant (2<sup>nd</sup> round)</b>				
CPA-DD, Version 3 date 16/06/2020				
<b>DOE assessment (2<sup>nd</sup> round)</b>				<b>Date: 16/06/2020</b>
<p>Technology description stated in the Registered CPA-DD (Version 2.4 Date 12/03/2012) for CPA No. 1: IFEC Solar PV and Technology description stated in section A.3 of the revised CPA-DD (Version 3 Date 16/06/2020) has not changed and consistent with the EPC contract, specifications and pictures provided by CME as follows:</p> <ul style="list-style-type: none"> <li>Model of PV module identified as "SG-HN100-GG"</li> <li>Inverter (Manufacturer : KACO , Model : XP500-HV TL)</li> <li>Transformer (Manufacturer : Charoengchai Transformer Co.,Ltd. , Model : Hermetically Sealed without Gas Cushion)</li> <li>Combiners (Manufacturer : Cooper Bussman)</li> <li>DC Cabinet (Manufacturer : PMK)</li> <li>HV 24KV switch Gear (Manufacturer : ABB)</li> <li>Controller/Monitoring System (Manufacturer : National Instrument)</li> <li>Cables MV (AC/DC) (Manufacturer : MCI)</li> </ul> <p>Thus, CAR 01 was closed successfully.</p>				

<b>CAR ID</b>	<b>CAR 02</b>	<b>Section no.</b>	<b>D.3.</b>	<b>Date:</b> 30/04/2020
<b>Description of CAR</b>				
<i>Determination of leakage emissions was not updated in line with paragraph 42 of AMS-I.D, version 18 which was revision to remove restrictions for leakage.</i>				
<b>CME response</b>				<b>Date:</b> 21/05/2020
The CPA uses Technology Type 2, thus the determination of leakage emissions as per paragraph 42 of the applied methodology is not applicable for the estimation of emission reductions.				
<b>Documentation provided by CME</b>				
-				
<b>DOE assessment</b>				<b>Date:</b> 14/06/2020
<p>The revised CPA-DD (Version 2 date 21/05/2020) indicate that,</p> <ul style="list-style-type: none"> <li>Determination of leakage emissions, <u>leakage emissions shall be considered whenever energy generating equipment is transferred from another activity</u>, independent of the Technology Type applied in the CPA.</li> <li>Calculation of leakage emissions, <u>leakage emissions shall be considered only when energy generating equipment is transferred from another activity</u>. Since the CPA applies employs a new set of equipment, leakage emissions can be neglected.</li> </ul> <p>However, the determination of leakage emissions (If the energy generating equipment is transferred from another activity, leakage is to be considered) was removed from AMS-I.D, version 18.</p> <p>Therefore, the Determination of leakage emissions and Calculation of leakage emissions stated in the revised CPA-DD (Version 2 date 21/05/2020) was not in line with paragraph 42 of AMS-I.D, version 18.</p>				
<b>CME response</b>				<b>Date:</b> 16/06/2020
The CPA-DD has been revised in section B.4.1 and B.4.3. The CPA involves Technology Type 2, thus the determination of leakage emissions as per paragraph 42 of the applied methodology is considered as zero.				
<b>Documentation provided by project participant (2<sup>nd</sup> round)</b>				
CPA-DD, Version 3 date 16/06/2020				
<b>DOE assessment (2<sup>nd</sup> round)</b>				<b>Date:</b> 16/06/2020
<p>The revised CPA-DD (Version 3 date 16/06/2020) indicate that,</p> <ul style="list-style-type: none"> <li>Determination of leakage emissions: Leakage emissions are considered to be zero. There is no use of biomass under the CPA applying Technology Types 2, hence, the determination of leakage emissions as per paragraph 42 of AMS-I.D, Version 18 is not applicable.</li> <li>Calculation of leakage emissions: There is no use of biomass under the CPA applying Technology Types 2, hence, the determination of leakage emissions as per paragraph 42 of AMS-I.D, Version 18 is not applicable.</li> </ul> <p>Therefore, the Determination of leakage emissions and Calculation of leakage emissions stated in the revised CPA-DD (Version 3 date 16/06/2020) was updated in line with paragraph 42 of AMS-I.D, version 18 which was revision to remove restrictions for leakage.</p> <p>Thus, CAR 02 was closed successfully.</p>				

Table 3. FAR from this validation

<b>FAR ID</b>	<b>FAR 01</b>	<b>Section no.</b>	<b>D.9</b>	<b>Date:</b> 16/06/2020
<b>Description of FAR</b>				
<i>The address of CME (Carbon Coordinating Managing Entity Limited) have been changed to 318 Evergreen Place, 3<sup>rd</sup> Floor Unit 3A, Thanon Petchaburi, Ratchthewi, Bangkok. Therefore, CDM-MOC-FORM to request changes to the modalities of communication as per paragraph 183 of CDM PCP PoA (version 2) shall be confirmed during next verification.</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). Change form symbol from CDM-CPA-RCP-FORM to CDM-CPA-RCPV-FORM.
01.0	3 August 2015	Initial publication.

Decision Class: Regulatory  
Document Type: Form  
Business Function: Renewal of crediting period  
Keywords: component project activity, crediting period, validation report