




## 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>	Title: Sustainable Small Hydropower Programme of Activities (PoA) in Viet Nam UNFCCC ref no: 6095		
<b>Version number of the validation report</b>	1.1		
<b>Completion date of the validation report</b>	07/10/2020		
<b>Version numbers of PoA-DD to which this report applies</b>	Version 6.0 of 20/07/2020		
<b>Title and UNFCCC reference number of each CPA for renewal</b>	CPA Ref. no.	<b>Title</b>	
	6095-P1-0001	Thoong Cot 2 Hydropower Project	
<b>Sectoral scopes for each CPA</b>	CPA Ref. no.	<b>Sectoral scopes (indicate mandatory and conditional sectoral scopes)</b>	
	6095-P1-0001	1.2 (mandatory)	
<b>Applied methodologies and standardized baselines for each CPA</b>	CPA Ref. no.	<b>Applied methodologies and standardized baselines</b>	
	6095-P1-0001	ACM0002 'Grid-connected electricity generation from renewable sources' (Version 20.0)	
<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>
	6095-P1-0001	2 <sup>nd</sup>	01/01/2020- 31/12/2026
<b>Coordinating/managing entity (CME)</b>	Vietnam PoA Carbon Management Joint Stock Company		
<b>Host Parties</b>	Viet Nam		
<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>	
	6095-P1-0001	13,402 tCO <sub>2</sub> e	
<b>Name and UNFCCC reference number of the DOE</b>	Carbon Check India Pvt. Ltd. UNFCCC reference number: E-0052		
<b>Name, position and signature of the approver of the validation report</b>	Amit Anand (CEO) 		

## SECTION A. Executive summary

### >>Purpose and general description and location:

The CPA involves the construction of the Thoong Cot 2 Hydropower plant, which is located on Quay Son River in Chi Vien commune, Trung Khanh district, Cao Bang province of Viet Nam. The CPA's installed capacity and estimated annual gross power generation is 3.5 MW and 14,710 MWh, respectively.

The project's purpose is to supply renewable electricity to the national grid via the Power Purchase Agreement (PPA) signed with the Electricity Corporation of Viet Nam (EVN). The net electricity generated from this project - annual estimated volume is 14,415 MWh - will be supplied to the national grid.

### Validation scope:

The objective of the Validation is to have an independent evaluation of the CPA proposed to be included in the PoA by a designated operational entity against the requirements of the CDM as set out in decision 3/CMP.1, its annex and relevant decisions of the COP/MOP, on the basis of the Programme Design Document (POA-DD) and of the Component Project Activity Design Document (CPA-DD). In particular, the demonstration of additionality of the PoA as a whole, the eligibility criteria for inclusion of a CPA in the PoA, the baseline determination for each generic CPA, the monitoring plan for each generic CPA, the estimated emission reduction from any CPA proposed in the project and the programme's compliance with relevant UNFCCC requirements and host Party criteria are validated in order to confirm that the programme design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM PoA projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

The validation scope is to review the PoA-DD/CPA-DD against the UNFCCC criteria for CDM.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the procedures for registration of programme of activity as a single CDM and the subsequent decisions by the CDM Executive Board.

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

### Validation process:

Validation was conducted using Carbon Check's procedures in line with the requirements specified in the CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques.

The validation consisted of the following three phases:

- Document review;
- Follow-up actions;
- The resolution of outstanding issues and the issuance of the final validation report.

### Conclusion:

South Pole Carbon Asset Management Ltd. (South Pole Carbon) has commissioned Carbon Check India Pvt. Ltd. to carry out the validation (renewal of crediting period) of the CPA "Thoong Cot 2 Hydropower Project" in Viet Nam, with regard to the relevant requirements for CDM activities.

This report summarizes the findings from the validation of the updated PoA-DD, performed on the basis of UNFCCC criteria for CDM, as well as criteria given by the CDM Validation and Verification Standard for PoA, CDM Project Cycle Procedure for PoA and CDM Project Standard 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.

In conclusion, it is Carbon Check'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, Technical Expert (TA 1.2)	ER	Buragohain	Champok	CC IPL	√	X	√	√

**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	Agarwalla	Sanjay Kumar	CC IPL
2.	Final approver	IR	Anand	Amit	CC IPL

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

>>The PoA-DD version 6.0 of 20/07/2020 /01/, the updated CPA-DD version 6.1 of 06/10/2020 /02/ in particular the applicability of the methodology, the baseline determination, the monitoring plan, the emission reduction calculations provided in the form of a spreadsheet (20200908\_Thoong Cot 2 HPP\_ER calculation sheet\_2nd CP\_Version1.0) /16/ were assessed as part of the validation.

Appendix 3 lists the documentation that was reviewed during the validation

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

Duration of on-site inspection: N/A				
No.	Activity performed on-site	Site location	Date	Team member
1.	-	-	-	-

Site visit has not been performed for the validation of the renewal of crediting period, in accordance with CDM validation and verification standard for programmes of activities, version 02.0, paragraph 183 /07/, as the estimated emission reductions of the CPA is 13,402 tCO<sub>2</sub>e. Representatives from CME have been interviewed through conference call and publicly available authentic sources were reviewed for cross checking information necessary for validation of the CPA.

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Hien	Dao	Representative of CME	20/05/2020	Status of the project activity and any modifications with respect to the registered PoA, The lifetime of the project activity;	Champok Buragohain
2.	Loan	Hong	Representative of CME			

					National and local policies and changes; Monitoring plan and changes. Inclusion criteria assessment.	
3.	Khunikakorn	Ladaporn Kat	South Pole Carbon Asset Management Ltd.	20/05/2020	CPA-DD preparation, Applicability to the latest methodology; Emission Factors and their updates; Baseline of the project and its updates.	Champak Buragohain

**C.4. Sampling approach**

&gt;&gt;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	--	--	--
Application and selection of methodologies and standardized baselines	--	--	--
Validity of original baseline or its update	--	1	--
Demonstration of eligibility of the CPAs	--	1	--
Estimated emission reductions or net anthropogenic removals	--	1	--
Validity of monitoring plan	--	1	--
Crediting period	--	1	--
CME and project participants	--	--	--
Post-registration changes	--	--	--
Others (please specify)	--	--	--
<b>Total</b>	0	5	0

**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
Thoong Cot 2 Hydropower Project (6095-P1-0001)	6.1 of 06/10/2020	Viet Nam	XXX	Version 6.0 of 20/07/2020

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

<b>Means of validation</b>	The CPA-DD was cross-checked with the latest CPA-DD template available at UNFCCC and with the instructions for filling out.
<b>Findings</b>	N/A
<b>Conclusion</b>	CC IPL confirms that the updated CPA-DD is in compliance with the latest version of

	<p>the CPA-DD form (version 09.0) and the instructions therein for filling out the CPA-DD form. CCIPL also confirms that the CME has updated the relevant sections of the CPA-DD in accordance with the relevant requirements in the Project Standard for PoA.</p> <p>CCIPL further confirms that the information transferred to the updated version of the CPA-DD is materially the same as that in the registered CPA-DD.</p>
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### D.3. Application and selection of methodologies and standardized baselines

Means of validation	<p>The CME has applied the methodology ACM0002 Version 20.0 /6/. 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 as described below:</p>	
	Criteria	VVB assessment
	<p>This methodology is applicable to grid-connected renewable energy power generation project activities that: (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 I Involve a replacement of (an) existing plant(s)/unit(s).</p> <p>The methodology is applicabl under the following conditions:</p> <p>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;</p> <p>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</p>	<p>The CPA under the PoA consist of a 3.5 MW hydro power plant i.e. renewable energy generation plant/unit that supplies electricity and displaces electricity from an electricity distribution system (the national grid). Hence, meets the applicability condition.</p> <p>The CPA under the proposed PoA consist of a 3.5 MW renewable energy generation plant/unit (hydro). There is no capacity addition in the project activity.</p>

	<p>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> <p>(a) 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>(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</p> <p>(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</p> <p>(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> , all of the following conditions shall apply:</p> <p>(i) The power density calculated using the total installed capacity of the integrated project, as per equation (4), is greater than 4 W/m<sup>2</sup>;</p> <p>(ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity;</p> <p>(iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m<sup>2</sup> shall be: a. Lower than or equal to 15 MW; and b. Less than 10 per cent of the total installed capacity of integrated hydro power project.</p> <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</p>	<p>The CPA under the proposed PoA is a 3.5 MW hydro power plant/unit with a new reservoir. The power density of the reservoir is 39.3 W/m<sup>2</sup> which is greater than 4 W/m<sup>2</sup>. Hence meets the applicability condition.</p> <p>The CPA is not a integrated hydro power plant. This is consistent with registered PoA-DD.</p>
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	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: (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.	The CPA does not consider any activity that involves switching from fossil fuel to renewable energy or any biomass fired power plant. This is consistent with registered PoA-DD.
	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 CPA does not consider any plant which involves retrofit, rehabilitation, replacement or capacity addition. Hence, not applicable to the CPA and consistent with the registered PoA-DD.
<b>Findings</b>	N/A	
<b>Conclusion</b>	CC IPL hereby confirms that the selected baseline and monitoring methodology 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.	

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

<b>Means of validation</b>	<p>Paragraph 288 of CDM PS for PoA states 'To demonstrate the validity of the original baseline or its update, the coordinating/managing entity is not required to re-assess the baseline scenario. Instead, the coordinating/managing entity shall assess the modalities to calculate GHG emission reductions or net anthropogenic GHG removals that would have resulted from that scenario' and paragraph 289 states 'The coordinating/managing entity shall assess and incorporate the impact of national and/or sectoral policies and circumstances existing at the time of requesting renewal of the PoA period on the modalities to estimate baseline GHG emissions for the subsequent crediting period of each corresponding CPA, without reassessing the baseline scenario'.</p> <p>Therefore, in line with the applied updated methodology ACM0002, version 20, the baseline scenario remains the same as 'Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-</p>
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connected power plants and by the addition of new generation sources, as reflected in the combined margin calculations described in the “Tool to calculate the emission factor for an electricity system”.

Further, paragraph 300 of CDM PS for PoA states ‘If data and parameters used for determining the original baseline, that were determined ex-ante and not monitored during the crediting period, are no longer valid, the coordinating/managing entity shall update such data and parameters in accordance with the “Methodological tool: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period”.

Accordingly, the CME has included the assessment of the validity of the original baseline as per the tool “Assessment of the validity of the original/ current baseline and update of the baseline at the renewal of a crediting period”, Version 3.0.1 /09/, which has been concluded to be still valid and applicable for the PoA. Therefore, the original baseline is still valid for the CPA.

The tool consists of two steps. The first step provides an approach to evaluate whether the current baseline is still valid for the next crediting period. The second step provides an approach to update the baseline in case that the current baseline is not valid anymore for the next crediting period.

Step 1: Assess the validity of the current baseline for the next crediting period

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

The CPA involves one small hydropower plant of 3.5 MW defined as small hydro under Vietnamese regulation connected to grid. In the absence of the project equivalent power would have been generated in the fossil fuel dominated grid. Therefore, baseline is the grid emission. Electricity Law No. 28/2004/QH11 dated on 03/12/2004 and Law No. 50/2010/QH12 on “Economical and Efficient use of energy” dated on 17/06/2010 are the main laws that govern the electricity sector in Viet Nam /10/, /11/. Their implementation is regulated under Government Decree No. 14/2014/ND-CP on “Stipulating in detail the implementation of electricity law regarding electricity safety” dated on 26/02/2014. The national policy does not mandate hydro power for electricity generation nor prohibit use of fossil fuel to generate electricity. Therefore, the baseline scenario is still valid as per the original CPA /12/.

Step 1.2: Assess the impact of circumstances

The circumstances existing at the time of requesting renewal of crediting period are the same as existing in the validation of the CPA. The estimated baseline emissions using hydropower to supply renewable electricity to the Vietnam national grid that is currently dominated by fossil fuel power plants. The baseline scenario identified at the validation of the project activity was the continuation of the current practice without any investment. The grid emission factor is calculated following steps as per tool ‘Tool to calculate the emission factor for an electricity system’ version 7.0 /13/. DOE accessed the latest emission factor published by Ministry of Natural Resources and Environment /14/, from publicly available source /15/ and confirms that most of the electricity is still generated by fossil fuel power plants. At the time of requesting renewal of the crediting period, the conditions used to determine the baseline scenario in the previous crediting period are still valid. New circumstances have not been observed which will harm the validity of the baseline scenario.

Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested.

In the absence of the project activity, the equivalent electricity would have generated in fossil fuel dominated grid. Therefore the baseline identified is the continuation of use of the current equipment(s) without any investment. An investment is not necessary before the end of the next crediting period (i.e. 31/12/2026) as it is realistic to consider that fossil fuel dominated grid will exceed



the crediting period for which renewal is requested.

**Step 1.4: Assessment of the validity of the data and parameter**

"Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the CDM project activity".

The grid emission factor fixed during first crediting period need to be updated during the second crediting period. Following paragraph 99 of 'Tool to calculate the emission factor for an electricity system' version 7 /13/, step wise approach as defined in the tool is used in the CPA. It also describes the sources to be used and equations to be followed in line with the applied tool. The CM emission factor is calculated applying 25% of OM and 75% of BM for the second crediting period of CPA. This is in line with the tool /13/.

Following data parameters are updated from registered CPA-DD:

Data/Parameter	Value in registered CPA-DD	Value in updated CPA-DD	Assessment
Operating margin Emission Factor of Vietnam national electricity grid ( $EF_{grid,OM,y}$ )	0.6240 tCO <sub>2</sub> /MWh	0.8795 tCO <sub>2</sub> /MWh	The updated value is calculated as per 'Tool to calculate the emission factor for an electricity system' version 7 and published by Ministry of Natural resources and Environment, Department of Climate change on 12/03/2020 /14/. Hence, accepted.
Build margin Emission Factor of Vietnamese national electricity grid ( $EF_{grid,BM,y}$ )	0.4875 tCO <sub>2</sub> /MWh	0.9465 tCO <sub>2</sub> /MWh	The updated value is calculated as per 'Tool to calculate the emission factor for an electricity system' version 7 and published by Ministry of Natural resources and Environment, Department of Climate change on 12/03/2020 /14/. Hence, accepted.
Combined margin CO <sub>2</sub> emission factor for grid connected power generation in year y ( $EF_{grid,CM,y}$ )	0.5558 tCO <sub>2</sub> /MWh	0.92975 tCO <sub>2</sub> /MWh	The CM emission factor is calculated applying 25% of OM and 75% of BM for the second crediting period of CPA. This is in line with the tool /13/.

**Step 2: Update the current baseline and the data and parameters**

Since, the existing baseline scenario is still valid, this step is not applicable.

Finally, it is concluded that the original baseline scenario is valid and assessment is complete as per "Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period v3.0.1.

**Findings**

CAR 1 was raised as assessment of validity of original baseline is not discussed as per the updated PoA-DD applicable for second crediting period, which PP has corrected in the updated CPA-DD and details found consistent. Hence, CAR is closed.

<b>Conclusion</b>	Carbon Check concludes that the original baseline is valid and assessment is done as per methodological tool 'Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period v3.0.1'. The assessment meets VVS Standard v.2.0 paragraph 382.
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**D.5. Demonstration of eligibility of the CPAs**

Means of validation	No.	Eligibility criterion – Category	Eligibility criterion – Required condition	Supporting evidence for inclusion	DOE assessment
	1	Geographical Boundary	Comprise one or more newly developed grid-connected hydro power plants located within the geographical boundary of Viet Nam.	As per Feasibility Study Report (FSR) of Thoong Cot 2 project.	According to §124 (a), of the PS for PoAs, v2, the geographical boundary of each CPA, shall be consistent with the geographical boundary set in the PoA. The PoA boundary is set as Viet Nam. Validation team based on review of CPA-DD /1/ confirms that the eligibility criterion meets PoA requirement.
	2	Installed Capacity	Have a maximum installed capacity below or equal to 30 MW to be qualified as a small hydropower plant under Vietnamese regulations.	Based on FSR and commissioning reports, the validation team confirms that the CPA capacity is 3.5 MW.	Validation team based on FSR and commissioning certificate of the CPA, confirms that the CPA meets the installed capacity criteria as defined in the PoA-DD.
	3	Double Counting check	Be uniquely identified project which is neither registered as a CDM project activity nor included in another registered PoA to avoid double counting of emission reductions.	Confirmation of CPA owner for the same.	The CPA is already included in the PoA and neither a registered CDM project activity nor included in another registered PoA. Hence, validation team confirms that this eligibility criterion meets the PoA requirement.
	4	Equipment	Use newly built equipment to generate electricity from hydro power.	FSR and EPC contracts	The CPA is a new project which is included in the PoA and going for second crediting period renewal. Hence, equipments are new for the project.

					Validation team based on review of CPA-DD and FSR confirms that the CPA meets the eligibility criterion is defined in the PoA.
	5	Start date	Have start date after validation start date. Validation start date is defined as the date in which the PoA-DD, and generic and specific CPA-DDs were first uploaded to the UNFCCC website for public inputs (in accordance to EB 55, Annex 38, paragraph 7d) or in the case of the CPA having start date before validation start date, have start date between 22 June 2007 and validation start date and be included in the list that have been provided to UNFCCC for this PoA (in accordance to EB 47 Meeting Report, paragraph 72).	The start date of the CPA is confirmed from EPC contract of the project	The start date of the CPA is 05 July 2010 which is after the start date of PoA. Validation team based on review of CPA-DD /1/ confirms that the eligibility criterion as defined in the PoA is met.
	6	Methodology requirements	Be in line with requirements Methodology ACM0002, version 20.0: "Grid-connected electricity generation from renewable sources" for hydro power projects. The CPA shall meet the following	<ul style="list-style-type: none"> <li>• Feasibility Study Report (FSR)</li> <li>• Reservoir measurement reports</li> </ul>	The CPA is a new grid connected 3.5 MW hydro power projects with a new single reservoir. The power density of the reservoir is 39.3 W/m <sup>2</sup> which is calculated as per reservoir survey report /17/. Hence, the CPA meets the eligibility criteria as defined in the PoA.

			<p>sub-criteria:</p> <ul style="list-style-type: none"> <li>- not include any activities that consist of capacity additions, retrofits or replacements;</li> <li>- be a hydro power plant/unit either with a run-of-river reservoir or accumulation reservoir. In case the CPA utilizing new single or multiple reservoirs, the power density of each reservoir must be greater than 4 W/m<sup>2</sup> with or without the volume increased</li> <li>- Not result in new reservoirs or in the increase in existing reservoirs where the power density of the power plant is less than 4 W/m<sup>2</sup>).</li> </ul>		
	7	CER rights	<p>Have a cooperation agreement with the CME to participate in the PoA. The Agreement shall clearly state that CPA owner cedes its rights to claim and own emission reductions under the Clean Development Mechanism of the UNFCCC or any</p>	<p>Emission Reduction Purchase Agreement between CPA owner and the CME.</p>	<p>The agreement between CPA implementer and CME is evident as the CPA is part of the PoA and renewal of second crediting period is sought. Hence, meets the eligibility criteria.</p>

			voluntary scheme to the CME of the present PoA.		
	8	Additionality	<p>Additionality of GHG emission reductions is demonstrated in accordance to the "Tool for the demonstration and assessment of additionality", version 7.0.0 (for new CPAs). This means the CPA shall meet the following sub-criteria:</p> <ul style="list-style-type: none"> <li>• Demonstrate that the Project IRR is either less than the Commercial Lending rate or less than the Weighted Average Cost of Capital (WACC), in cases where the WACC is chosen as the appropriate Benchmark. It shall also be demonstrated that such conclusion is confirmed by a means of a sensitivity analysis.</li> </ul> <p>CPA is not common practice in Viet Nam.</p>	<p>Input for calculating investment analysis will taken from:</p> <ul style="list-style-type: none"> <li>• FSR</li> <li>• Published data on local commercial lending rates</li> <li>• Other relevant available document.</li> </ul>	<p>The CPAs additional as discussed following additionality tool. However re-assessment of additionality is not required for renewal of the PoA as per paragraph 285 of CDM PS for PoA version 2.</p>
	9	Stakeholder	Undertake stakeholder	The information confirmed by	The stakeholder consultation was

		consultations and environmental impact analysis	consultations and environmental impact analysis as per requirements of the CDM modalities and procedures as well as the relevant laws and regulations of Viet Nam.	following documents: <ul style="list-style-type: none"> <li>• Invitation notice</li> <li>• Meeting minutes</li> <li>• Summary of comments received and how they have been taken into account.</li> <li>• Feasibility Study Approval</li> <li>• Environmental Impact Assessment Report Approval/ Environmental Protection Commitment</li> <li>• Investment Licence</li> <li>• Other relevant document.</li> </ul>	done at CPA level during inclusion of the CPA in the PoA. This is renewal of crediting period of the CPA and hence no stakeholder consultation is required for the second crediting period.
	10	Diversion of ODA fund	The CPA should have no public funding from Annex I countries resulting into the diversion of official development assistance or public funding;	The declaration from the CPA implementer affirming that no funding from Annex I parties is used in the CPA;	There is no diversion of ODA fund in the CPA as confirmed during inclusion of the CPA in the PoA. This is renewal of crediting period for the CPA and hence the condition is already met.
	11	Target group	The CPA should be a grid-connected hydropower project.	Document pertaining to grid connection/ Grid connection agreement/ PPA etc shall be provided.	From PPA executed for the project /18/, validation team confirms that the CPA is a grid-connected hydro power project.
<b>Findings</b>	CAR 02 was raised as all eligibility criteria as per PoA-DD was not discussed which CME has updated in the CPA-DD. All eligibility criteria as per registered PoA-DD are discussed and justified, hence CAR is closed.				
<b>Conclusion</b>	Carbon Check confirms that that CPA meets all the inclusion criteria as per the registered PoA-DD.				

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

<b>Means of validation</b>	<p><b>Baseline Emissions:</b></p> <p>In line with applied methodology ACM0002, version 20, baseline emissions are calculated as below:</p> $BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$ <p><math>EG_{PJ,y} = EG_{facility,y}</math> is the Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CPA in year y (MWh). This</p>
----------------------------	---

is to be calculated from monitoring parameters ( $EG_{y,export}$  and  $EG_{y,import}$ ) as per monitoring plan given in section B.5.1 of the updated CPA-DD. For ex-ante the value is considered 14,415 MWh in consistent with registered CPA-DD applicable for the first CP.

Grid emission factor ( $EF_{grid,CM,y}$ ) is calculated as per 'Tool to calculate the emission factor for an electricity system' version 07 /13/ and data published by Ministry of Natural resources and Environment, Department of Climate Change, Govt of Viet Nam to be used. The CM emission factor is calculated applying 25% of OM and 75% of BM for the second crediting period of the CPA. This is in line with the tool /13/ and resulted value is 0.92975 tCO<sub>2</sub>/MWh.

Therefore, baseline emissions for the CPA estimated ex-ante is 13,402 tCO<sub>2</sub>.

#### Project Emissions:

In line with the applied methodology project emission applicable for the project activity is emissions from water reservoir of hydropower plants ( $PE_{HP,y}$ ):

For hydropower project activity that results in new single or multiple reservoirs and/or the increase of single or multiple existing reservoirs, the power density (PD) of the project activity shall be calculated as follows:

$$PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}}$$

Where:

- $PD$  = Power density of the project activity (W/m<sup>2</sup>)
- $Cap_{PJ}$  = Installed capacity of the hydro power plant after the implementation of the project activity (W)
- $Cap_{BL}$  = Installed capacity of the hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero
- $A_{PJ}$  = 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 (m<sup>2</sup>)
- $A_{BL}$  = Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m<sup>2</sup>). For new reservoirs, this value is zero

If the power density of the project activity is greater than 4 W/m<sup>2</sup> and less than or equal to 10 W/m<sup>2</sup>, project emissions to be calculated as below:

$$PE_{HP,y} = \frac{EF_{Res} \times TEG_y}{1000}$$

Where:

- $PE_{HP,y}$  = Project emissions from water reservoirs (t CO<sub>2</sub>e/yr)
- $EF_{Res}$  = Default emission factor for emissions from reservoirs of hydro power plants (kg CO<sub>2</sub>e/MWh)
- $TEG_y$  = Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y (MWh)

If the power density of the project activity is greater than 10 W/m<sup>2</sup>,  
 $PE_{HP,y} = 0$





			signed by the representatives of EVN and the project owner. Energy meters to be calibrated according to latest regulation in Vietnam which is once in three years /19/. The monitoring of the parameter is as per applied methodology /5/.
	<b>EG<sub>facility,y</sub></b> (MWh)	Net electricity supplied to the national grid by the proposed project	Calculated as difference of EG <sub>y,export</sub> and EG <sub>y,import</sub>
	<b>A<sub>PJ</sub></b> (m <sup>2</sup> )	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.	This is to be monitored CPA specific once at the beginning of the crediting period. The measurement is done on 18/02/2020. The second crediting period start from 01/01/2020 and hence the measured value of 88,900 m <sup>2</sup> is applicable for the entire second crediting period.
	<b>Cap<sub>PJ</sub></b> (W)	Installed capacity of the hydro power plant after the implementation of the project activity	The installed capacity as per commissioning reports is 3,500,000 W which is still same at the beginning of the second crediting period as verified from turbine nameplate /20/.
The monitoring plan is still same in consistent with the latest methodology and hence valid for the next crediting period. Validation team is of the opinion that monitoring plan is feasible within the project design.			
<b>Findings</b>	CAR 04 was raised to clarify the reason for not including <i>TEGy (MWh)</i> as monitoring parameter and calibration frequency of energy meters. PP has clarified that since power density is more than 10 W/m <sup>2</sup> , the parameter is not required to monitor. Also calibration frequency is provided as per latest national regulation. Hence, CAR is closed.		
<b>Conclusion</b>	CCIPL confirms that the monitoring plan included in the updated CPA-DD is valid as per the applied methodology and conforms the registered PoA-DD.		

#### D.8. Crediting period

<b>Means of validation</b>	The CPA is going for 2 <sup>nd</sup> crediting period renewal. First crediting period was from 01/01/2013 to 31/12/2019. The second crediting period start date is 01/01/2020 up to 31/12/2026. The life of hydro power plant under the CPA is 36 years. The CPA commissioned on 07/08/2013. The life end on 06/08/2049. Therefore the CPA has operational life during the tenure of second crediting period.
<b>Findings</b>	CAR 05 was raised as start date of crediting period applicable for 2 <sup>nd</sup> crediting period was not provided in the CPA-DD which PP has correctly mentioned in the updated CPA-DD and hence CAR is closed.
<b>Conclusion</b>	CCIPL confirms that the second crediting period for the CPA commences on the day after the expiration of the crediting period i.e. from 01/01/2020 which is as per paragraph 390 (v) of VVS for PoA version 02.

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

<b>Means of validation</b>	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. Carbon Check also reviewed the letter of approval (Ref:15/2010/DMHCC-BCD) dated: 14/07/2010 issued from the DNA of Viet Nam authorizing Vietnam PoA Carbon Management Joint Stock Company as CME and letter of approval from NDA of Switzerland (Ref: G514-3487, dated 27/09/2011) authorizing South Pole Carbon Asset Management Ltd. as project participant. The latest MoC dated: 19/11/2013 to confirm the name of the project participant.
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<b>Findings</b>	N/A
<b>Conclusion</b>	CC IPL confirms that the CME and project participants of the PoA is listed in the updated PoA-DD and this information is consistent with the information provided in the latest MoC and hence meets paragraph 384 of VVS PoA version 02.

**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**

>>The final validation report has undergone a technical review and quality reviewer before being submitted to the project participant(s) and UNFCCC Executive Board. A technical reviewer qualified in accordance with CC IPL's qualification scheme for CDM validation and verification has performed the technical review.

**SECTION F. Validation opinion**

>>

South Pole Carbon Asset Management Ltd., has appointed the DOE, Carbon Check (India) Private Ltd., (CC IPL) to perform the validation (renewal of crediting period) of the CPA "Thoong Cot 2 Hydropower Project" in Viet Nam.

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

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

The review of the CPA-DD and the subsequent follow-up interviews have provided validation team with sufficient evidence to determine the validity of the original baseline and/or its update through an assessment. The CPA-DD correctly applies the consolidated methodology ACM0002, version 20 and meets all inclusion criteria as defined in the registered PoA-DD. The monitoring arrangements described in the monitoring plan are feasible within the CPA-DD, and it is validation team's opinion that the CME/CPA Implementer are able to implement the monitoring plan and it is deemed likely that the forecasted emission reductions of 13,402 tCO<sub>2</sub>e per year from the CPA during the second crediting period will be achieved, given that the underlying assumptions do not change.

During the course of validation five (05) CARs were identified on initially submitted revised CPA-DD /01/. All the CARs have been resolved by project proponent.

In summary, it is validation team's opinion that the CPA "Thoong Cot 2 Hydropower Project" (UNFCCC Reference number 6095-P1-0001) meets all relevant UNFCCC requirements for the renewal of the CPA period. Hence CCIPL requests the renewal of the CPA.

## Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
BM	Build Margin emission factor
CAR	Corrective Action Request
CC IPL	Carbon Check India Pvt. Ltd.
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH <sub>4</sub>	Methane
CL	Clarification Request
CM	Combine Margin emission factor
CME	Coordinating and managing entity
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
CPA	Component project activity
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
EIA	Environmental Impact Assessment
EPC	Engineering Procurement and Construction
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
kW	Kilo Watt
LoA	Letter of Approval
MoC	Modalities of Communication
MoV	Means of Verification
MR	Monitoring Report
MW	Mega Watt
ODA	Official Development Assistance
OM	Operating Margin emission factor
PDD	Project Design Document
PE	Project Emission
PoA	Program of Activities
PPA	Power Purchase Agreement
PP(s)	Project Participant(s)
Ref.	Document Reference
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

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



### Carbon Check (India) Private Ltd. Champok Buragohain

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

For following functions:

Validator	<input checked="" type="checkbox"/>	Team Leader	<input checked="" type="checkbox"/>	Technical reviewer	<input type="checkbox"/>
Verifier	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>	Local Expert <sup>1</sup>	<input checked="" type="checkbox"/>

In the following Technical Areas:

TA 1.1	<input checked="" type="checkbox"/>	TA 3.1	<input checked="" type="checkbox"/>	TA 5.2	<input type="checkbox"/>	TA 9.2	<input type="checkbox"/>	TA 13.2	<input checked="" type="checkbox"/>
TA 1.2	<input checked="" type="checkbox"/>	TA 4.1	<input type="checkbox"/>	TA 8.1	<input type="checkbox"/>	TA 10.1	<input type="checkbox"/>	TA 14.1	<input type="checkbox"/>
TA 2.1	<input type="checkbox"/>	TA 5.1	<input type="checkbox"/>	TA 9.1	<input type="checkbox"/>	TA 13.1	<input checked="" type="checkbox"/>		

  
Mr. Vikash Kumar Singh  
Compliance Officer

Date of Approval  
24/12/2019

  
Mr. Amit Anand  
CEO

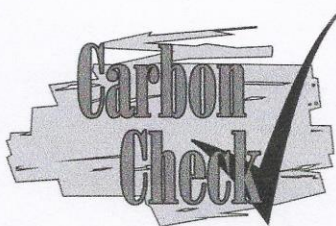
Valid Till  
23/12/2020

#### Revision History of the Document

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

<sup>1</sup> India

**CARBON CHECK (INDIA) PRIVATE LIMITED**  
Registered in India: U74930DL2012PTC232495  
Regd. Off: 2071/38, 2<sup>nd</sup> Floor, Naiwala, Karol Bagh, New Delhi - 110005  
Corporate off: G 49 & 50, 3<sup>rd</sup> Floor, Sector - 3, NOIDA (Uttar Pradesh) - 201301  
Tel: +91 120 4373114 | URL: [www.carboncheck.co.in](http://www.carboncheck.co.in)  
e-mail: [info@carboncheck.co.in](mailto:info@carboncheck.co.in)



## Carbon Check (India) Private Ltd.

### Sanjay Agarwalla

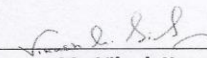
has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

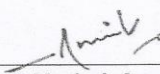
For following functions:

Validator	<input checked="" type="checkbox"/>	Team Leader	<input checked="" type="checkbox"/>	Technical reviewer	<input checked="" type="checkbox"/>
Verifier	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>	Local Expert <sup>1</sup>	<input checked="" type="checkbox"/>

In the following Technical Areas:

TA 1.1	<input checked="" type="checkbox"/>	TA 3.1	<input checked="" type="checkbox"/>	TA 5.2	<input checked="" type="checkbox"/>	TA 9.2	<input checked="" type="checkbox"/>	TA 13.2	<input type="checkbox"/>
TA 1.2	<input checked="" type="checkbox"/>	TA 4.1	<input checked="" type="checkbox"/>	TA 8.1	<input type="checkbox"/>	TA 10.1	<input type="checkbox"/>	TA 14.1	<input type="checkbox"/>
TA 2.1	<input checked="" type="checkbox"/>	TA 5.1	<input checked="" type="checkbox"/>	TA 9.1	<input checked="" type="checkbox"/>	TA 13.1	<input checked="" type="checkbox"/>		

  
**Mr. Vikash Kumar Singh**  
 Compliance Officer

  
**Mr. Amit Anand**  
 CEO

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

**Valid Till**  
 23/12/2020

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

<sup>1</sup> India

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 Corporate off: G 49 & 50, 3<sup>rd</sup> Floor, Sector - 3, NOIDA (Uttar Pradesh) - 201301  
 Tel: +91 120 4373114 | URL: [www.carboncheck.co.in](http://www.carboncheck.co.in)  
 e-mail: [info@carboncheck.co.in](mailto:info@carboncheck.co.in)



### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	South Pole Carbon	Registered PoA DD for the PoA 'Sustainable Small Hydropower Programme of Activities (PoA) in Viet Nam' in Viet Nam for second crediting period	Version 6.0 of 20/07/2020	CME
2	South Pole Carbon	Updated CPA-DD for 'Thoong Cot 2 Hydropower Project' applicable for second crediting period	Version 6.0 of 06/09/2020 and 6.1 of 06/10/2020	CME
3	Carbon Check	Validation report of the PoA 'Sustainable Small Hydropower Programme of Activities (PoA) in Viet Nam' in Viet Nam for second crediting period	Version 2.0 of 22/07/2020	CME
4	Bureau Veritas Certification	Validation report for the PoA 'Sustainable Small Hydropower Programme of Activities (PoA) in Viet Nam' in Viet Nam and CPA 'Thoong Cot 2 Hydropower Project' applicable for first crediting period.	Report no. VIETNAM-VAL/0012/2011, rev 3 dated 10/09/2012	CME
5	UNFCCC	UNFCCC webpage: PoA 6095 : Sustainable Small Hydropower Programme of Activities (PoA) in Viet Nam	<a href="https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/0GLBE2TU91C8VFR6K3HQP7NOIXWJZD/view">https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/0GLBE2TU91C8VFR6K3HQP7NOIXWJZD/view</a>	Others
6	UNFCCC	ACM0002: Grid-connected electricity generation from renewable sources	Version 20	Others
7	UNFCCC	Validation and verification standard for PoA	Version 02 of 29/11/2018	Others
8	UNFCCC	CDM Project Standard for PoA	Version 02 of 29/11/2018	Others
9	UNFCCC	Methodological tool '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- EB 66 Annex 47	Others
10	Socialist Republic of Vietnam	Electricity Law	No. 28/2004/QH11	Others
11	Socialist Republic of Vietnam	Law on Economical and Efficient use of energy	Law No. 50/2010/QH12	Others
12	South Pole Carbon	Registered CPA-DD for 'Thoong Cot 2 Hydropower Project' applicable for first crediting period	Version 5.0 of 30/07/2018	CME
13	UNFCCC	Tool to calculate the emission factor for an electricity system	Version 7	Others
14	Ministry of Natural Resources and Environment	Vietnam national electricity grid emission factor for 2018	No: 263/BDKH-TTBVTOD, 12/03/2020	PP
15	Department of Climate Change – Ministry of Natural Resources and Environment	Emission factor of Vietnam's electricity grid in 2018	<a href="http://www.dcc.gov.vn/ti-n-tuc/3620/He-so-phat-thai-cua-luoi-dien-Viet-Nam-nam-2018.html">http://www.dcc.gov.vn/ti-n-tuc/3620/He-so-phat-thai-cua-luoi-dien-Viet-Nam-nam-2018.html</a>	Others
16	South Pole Carbon	Emission reduction worksheet for 'Thoong Cot 2 Hydropower Project' applicable for	Version 1.0 of 08/09/2020	CME

		second crediting period		
17	Power Engineering Consulting Joint Stock Company 1	Hydropower reservoir survey: Thoong Cot 2 Hydropower Project	Dated 18/02/2020	
18	Eternal Light Company Limited and Northern Power Corporation	Power purchase agreement for Thoong Cot 2 Hydropower Project		CME
19	Directorate for Standards, Metrology and Quality under Ministry of Science and Technology of the Socialist Republic of Viet Nam	Power meters – Verification/calibration procedure	Decision No. 2739/QD-TDC	CME
20	South Pole Carbon	Nameplate of turbines for the project		CME

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

Table 1. CL from this validation

CL ID	xx	Section no.	Date: DD/MM/YYYY
Description of CL			
CME response			Date: DD/MM/YYYY
Documentation provided by CME			
DOE assessment			Date: DD/MM/YYYY

Table 2. CAR from this validation

CAR ID	01	Section no.	D.4	Date: 30/08/2020
Description of CAR				
<i>The assessment of validity of original baseline is not discussed as per the updated PoA-DD applicable for second crediting period.</i>				
CME response				Date: 06/10/2020
<i>The assessment of validity of original baseline has been updated in the revised CPA DD according to the updated PoA-DD for the second crediting period.</i>				
Documentation provided by CME				
<i>Updated CPA-DD</i>				
DOE assessment				Date: 07/10/2020
The original baseline is valid and assessment is done as per methodological tool 'Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period v3.0.1'. The assessment meets VVS Standard v.2.0 paragraph 382. Hence, CAR is closed.				



<b>CAR ID</b>	02	<b>Section no.</b>	D.5	<b>Date:</b> 30/08/2020
<b>Description of CAR</b>				
<i>All eligibility criteria defined in updated PoA-DD for inclusion of CPA are not discussed in the CPA-DD.</i>				
<b>CME response</b>				<b>Date:</b> 06/10/2020
<i>All eligibility criteria for inclusion of CPA are updated according to the updated PoA-DD for renewal crediting period.</i>				
<b>Documentation provided by CME</b>				
<i>Updated CPA-DD</i>				
<b>DOE assessment</b>				<b>Date:</b> 07/10/2020
CME has discussed and justified all eligibility criteria as per the registered PoA-DD and hence CAR is closed.				

<b>CAR ID</b>	03	<b>Section no.</b>	D.6	<b>Date:</b> 30/08/2020
<b>Description of CAR</b>				
<i>The ex-ante estimated emission reduction worksheet for the CPA is not submitted. The reservoir capacity as required by the methodology (Once at the beginning of each crediting period) is requested to justify.</i>				
<b>CME response</b>				<b>Date:</b> 06/10/2020
<i>The ex-ante estimated emission reduction worksheet for the CPA has been provided herewith.</i>				
<i>Monitored data for area of reservoir and photographs of turbine-generator's nameplate have been submitted for DOE's assessment.</i>				
<b>Documentation provided by CME</b>				
<ul style="list-style-type: none"> <li>- The revised CPA DD</li> <li>- The estimated ER calculation spread sheet for 2<sup>nd</sup> CP</li> <li>- Monitored data for area of reservoir</li> <li>- Photographs of turbine-generator's nameplate</li> </ul>				
<b>DOE assessment</b>				<b>Date:</b> 07/10/2020
The emission reduction worksheet found correctly applied data parameters and assumptions for estimation of emission reductions from the CPA. The reservoir area is measured beginning of the crediting period and correctly justifies the project emission as per the applied methodology. Hence, CAR is closed.				

<b>CAR ID</b>	04	<b>Section no.</b>	D.7	<b>Date:</b> 30/08/2020
<b>Description of CAR</b>				
<i>The monitoring parameter (TEG<sub>y</sub> (MWh) as defined in the PoA-DD is not discussed in the CPA-DD. For calibration frequency mentioned in CPA-DD, CME is requested to clarify with documentary evidence.</i>				
<b>CME response</b>				<b>Date:</b> 06/10/2020
<p><i>As discussed in the updated PoA-DD, monitoring of TEG<sub>y</sub> is applied for CPAs with a power density (PD) greater than 4 W/m<sup>2</sup> and less than or equal to 10 W/m<sup>2</sup>. Since the CPA's PD of 39.3 W/m<sup>2</sup> is greater than 10 W/m<sup>2</sup>, the monitoring of TEG<sub>y</sub> was excluded from the monitoring section.</i></p> <p><i>As per current regulation in Viet Nam, calibration of power meters should be calibrated every 3 years according to DLVN 39:2019 on Alternating current static watt-hour meters Verification procedure. The regulation may be adjusted during the 2<sup>nd</sup> crediting period of the CPA, thus, calibration frequency has been revised to "according to the latest regulation in Viet Nam" in the revised CPA-DD for consistency.</i></p>				
<b>Documentation provided by CME</b>				
<ul style="list-style-type: none"> <li>- The revised CPA-DD</li> <li>- DLVN 39:2019 on Alternating current static watt-hour meters Verification procedure.</li> </ul>				
<b>DOE assessment</b>				<b>Date:</b> 07/10/2020
The justification for monitoring parameter (TEG <sub>y</sub> (MWh) is accepted. The power density of the reservoir is greater than 4 W/m <sup>2</sup> and hence monitoring of (TEG <sub>y</sub> (MWh) is not required for the project activity. The calibration frequency is correctly described as per latest national regulation and hence accepted. In summary, CAR is closed.				

<b>CAR ID</b>	05	<b>Section no.</b>	D.8	<b>Date:</b> 30/08/2020
<b>Description of CAR</b>				
<i>Specify the start date of crediting period applicable for 2<sup>nd</sup> crediting period as well in section C.3.2 of the CPA-DD.</i>				
<b>CME response</b>				<b>Date:</b> 06/10/2020
<i>The start date of 2<sup>nd</sup> crediting period has been provided in section C.3.2 of the revised CPA-DD</i>				

<b>Documentation provided by CME</b>	
<i>The revised CPA-DD</i>	
<b>DOE assessment</b>	<b>Date:</b> 07/10/2020
The start date of the CPA applicable for 2 <sup>nd</sup> CP is correctly mentioned in section C.3.2 of CPA-DD. Hence CAR is closed.	

Table 3. FAR from this validation

<b>FAR ID</b>	N/A	<b>Section no.</b>	N/A	<b>Date:</b> DD/MM/YYYY
<b>Description of FAR</b>				
N/A				
<b>CME response</b>				<b>Date:</b> DD/MM/YYYY
N/A				
<b>Documentation provided by CME</b>				
N/A				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

- - - - -

**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		