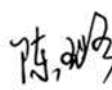




**Verification and certification report form for CDM project activities
(Version 01.0)**

Complete this form in accordance with the "Attachment: Instructions for filling out the verification and certification report form for CDM project activities" at the end of this form.

VERIFICATION AND CERTIFICATION REPORT

Title of the project activity	Yunnan Jiayan Hydropower Project
Reference number of the project activity	9031
Version number of the verification and certification report	Version 01
Completion date of the verification and certification report	07/11/2016
Monitoring period number and duration of this monitoring period	1st Monitoring period 01/02/2013 to 31/12/2015 (first and last days included)
Version number of monitoring report to which this report applies	Version 02
Crediting period of the project activity corresponding to this monitoring period	The first crediting period is 01/02/2013 – 31/01/2020 (renewable)
Project participant(s)	Yunnan Dianneng Luquan Dianlin Development Co., Ltd (Project owner) Baraka Global Advisors (withdrawn) (Buyer)
Host Party	P.R.China
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	Sectoral scope: 1.Energy industries (renewable/non-renewable sources) ACM0002 Version 13.0.0
Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in the registered PDD	1,122,783 tCO ₂ e
Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period	760,939 tCO ₂ e
Name of DOE	China Building Material Test & Certification Group Co., Ltd.
Name, position and signature of the approver of the verification and certification report	

SECTION A. Executive summary

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Yunnan Dianneng Luquan Dianlin Development Co., Ltd has commissioned China Building Material Test & Certification Group Co., Ltd. (hereafter referred to as "CTC") to carry out the 1st periodic verification of Yunnan Jiayan Hydropower Project (hereafter referred to as "the Project", UNFCCC reference No.9031) covering the monitoring period from 01/02/2013 to 31/12/2015.

The verification is based on the currently valid documentation of the United Nations Framework Convention on Climate Change (UNFCCC).

The verification process includes three phases: 1) desk review of documents; 2) on-site inspection and follow-up interviews with the relevant personnel; 3) resolution of outstanding issues and the issuance of final verification report and opinion.

4 Corrective Action Requests (CARs) and 1 Clarification Request (CL) were raised in the verification process and successfully closed upon the project participant taken actions and submitted the revised monitoring report and supporting evidence.

In summary, CTC confirms that the Project is implemented as planned and described in the validated and revised project design documents. The monitoring plan is in accordance with the applied methodology and the monitoring system is in place and functional. The installed equipment for measuring parameters required for calculating emission reductions are calibrated appropriately. The Project is generating GHG emission reductions. The GHG emission reductions are calculated without material misstatements.

Based on the verified amount of emission reductions stated in the verification report, CTC confirms the following statement, and requests the CDM-EB to issue the CERs:

Actual emission reduction for the monitoring period up to (and including) 31 December 2012	0 tCO ₂ e
Actual emission reduction for the monitoring period from (and including) 1 January 2013 onwards	760,939 tCO ₂ e
Total amount of GHG emission reductions or net GHG removals by sinks achieved in this monitoring period (01/02/2013 to 31/12/2015)	760,939 tCO ₂ e

A.1. Objective

CDM project Verification is the periodic independent review and ex-post determination by a DOE of the monitored reductions in GHG emissions during defined verification period. In carrying out its verification work, the DOE shall ensure that the project activity complies with the requirements of paragraph 62 of the CDM modalities and procedures. The verification shall:

- Ensure that the project activity has been implemented and operated as per the registered PDD or any approved revised PDD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the Project are in place;
- Ensure that the monitoring report and other supporting documents provided are complete in accordance with latest applicable version of the completeness checklist for requests for issuance of CERs and verifiable and in accordance with applicable CDM requirements;
- Ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan or any revised approved monitoring plan, and the approved methodology including applicable tool(s);
- Evaluate the data recorded and stored as per the monitoring methodology including applicable

tool(s).

A.2. Scope

The verification scope covers the relevant documents (e.g. the registered PDD, the Monitoring Plan, the Monitoring Report, the emission reduction calculation spreadsheet, supporting documents available to the verifier and information collected through performing interviews and during the on-site assessment, EB's request and guidelines publicly available, relevant rules, including the host country legislation, etc.) to be independently reviewed, the Project geographical locations to be visited on-site, the Project local stakeholders to be interviewed with, and processes that are necessary to acquire objective evidence for the evaluation of the Project compliance to the CDM verification requirements.

The above verification activities are conducted according to the CDM requirements. In doing so, the principles of accuracy and completeness, relevance, reliability and credibility were followed.

The verification is not meant to provide any consulting service towards the PPs. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the Project.

A.3. CDM Project Description

Yunnan Jiayan Hydropower Project is a newly built grid connected hydro power generation plant developed by Yunnan Dianneng Luquan Dianlin Development Co., Ltd and located in Luquan County, Kunming City, Yunnan Province. The geographical coordinates of the Project are 102.7561°E, 26.1522° (dam site); 102.7636°E, 26.2000° (powerhouse site).

The Project is a new hydro power generation plant. The purpose of the Project is to utilise the hydro power to generate electricity which would otherwise have been produced by fuel-fired power plants and deliver the electricity to the China Southern Power Grid. The Project involves the installation of 3 sets of turbines and generators with a unit capacity of 80MW, for a total installed capacity of 240MW. The surface area of the reservoir at full reservoir level is 3,570,000m² resulting a power density 67.23 W/m². The expected annual electricity supplied to the power grid is 1,093,505MWh. The Project will achieve greenhouse gas (GHG) emission reductions by avoiding CO₂ emission from the baseline scenario, electricity generated by those fossil fuel-fired power plants connected into China Southern Power Grid. The estimated average annual emissions reductions over the first crediting period are 780,106tCO₂e, according to the PDD Version 04.4 /22/.

As per the Construction start order /8/ and Commission Completion Report /9/, the Project started to construct on 19/05/2009, and the Project was commissioned on 24/06/2014 (Commissioning date of No.3 Generator). No.2 and No.1 Generator were commissioned on 28/07/2014 and 21/08/2014 respectively. During this monitoring period (01/02/2013 to 31/12/2015), there have been no events or situations that occurred which may impact the applicability of the applied methodology.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of	Last name	First name	Affiliation	Involvement in
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		resource			(e.g. name of central or other office of DOE or outsourced entity)	Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Tan	Ernesto	CTC Beijing	✓	✓	✓	✓

Note: IR: Internal Resources, EI: External Individuals

B.2. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Dou	Lucas	CTC Beijing
2.	Approver	IR	Chen	Lu	CTC Beijing

SECTION C. Application of materiality

All the data and information has been checked during verification, thus the concept of materiality has not applied in the verification.

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1	N/A	N/A	N/A	N/A

C.2. Consideration of materiality in conducting the verification

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N/A

SECTION D. Means of verification

D.1. Desk review

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After receiving the Monitoring Report Version 01 dated 05/04/2016, CTC made it publicly available on the UNFCCC CDM dedicated website on 06/04/2016.

(link: <http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1356081670.71/iProcess/CTCCCP1459843798.56/view>).

A desk review of the Monitoring Report Version 01 dated 05/04/2016 and supporting documents was conducted by the verification team. The aim of the desk review of the documentation was to verify the completeness of the data and the information presented, to carry out the compliance check of the MR with respect to the monitoring plan and the applied methodology. Particular

attention was given to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures. The evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions was also conducted.

In addition to the monitoring documentation provided by the project participants, the DOE reviews:

- (a) The registered PDD /21/;
- (b) The validation report /23/;
- (c) The revised PDD, which includes the revised monitoring plan /22/
- (d) The validation report for the revised PDD /24/
- (e) The applied monitoring methodology /25/;
- (f) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board /26/;
- (g) Other information and references relevant to the project activity's resulting emission reductions (e.g. IPCC reports, laboratory analysis or national regulations) /4//5/.

Appendix 3 of this report contains a complete list of all documents and proofs reviewed by the verification team.

D.2. On-site inspection

Duration of on-site inspection: 30/08/2016				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening meeting (Scope of work, timetable, approval process, CDM procedure for verification, verification methodology, confidentiality)	project site	30/08/2016	Mr. Ernesto Tan
2.	Project site visit including the status of the project implementation: Main facilities including reservoir and powerhouse Main equipments Central control room and data acquisition and processing system Monitoring device and installed position	Project site	30/08/2016	
3.	Interview (Refer to the table in D.3)	Project site	30/08/2016	
4.	Document Review of monitoring records, invoices, calibration records, etc	Project site	30/08/2016	
5.	Closing Meeting CARs/CLs discussion, findings compilation, agreement on the time frame for replies Impacts of the findings and delayed response upon timings and next	Project site	30/08/2016	

steps.			
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D.3. Interviews

No	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Chen	Ran	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	30/08/2016	Status of the CDM project implementation. Any changes of the CDM project;	Mr. Ernesto Tan
2.	Li	Changshou			The Project on-site inspection – the evidences of construction, status and operation of key equipment, parameters monitoring and data processing activities, monitor equipment and calibration;	
3.	Ma	Qian	China Carbon Futures (Beijing) Asset Management Co., Ltd. (consulting company)		Compliance of the project implementation with the registered project design document; Compliance with National Laws and Regulations. Quality Management; organizational structure, responsibilities and competencies. Internal QA/QC Management procedures and document control (QA/QC) Environmental Impacts Preparation of Monitoring Report. Compliance of the monitoring plan with the monitoring methodology; Compliance of monitoring with the monitoring plan; Assessment of data and calculation of GHG emission reductions.	

D.4. Sampling approach

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N/A

D.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	-	-	-
Compliance of the project implementation with the registered PDD	-	2	-
Post-registration changes	-	-	-
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline	-	-	-
Compliance of monitoring activities with the registered monitoring plan	-	1	-
Compliance with the calibration frequency requirements for measuring instruments	-	1	-
Assessment of data and calculation of emission reductions or net removals	1	-	-
Others (please specify)	-	-	-
Total	1	4	0

SECTION E. Verification findings**E.1. Compliance of the monitoring report with the monitoring report form**

Means of verification	Through cross-check and comparison, to confirm if the applied monitoring report form is valid and listed in UNFCCC website.
Findings	Through document review of the provided monitoring report (MR) /2/ and comparison with the latest MR template, the verification team confirm: <ul style="list-style-type: none"> • The MR /2/ used the latest form available at UNFCCC website. • The MR /2/ is complete and meet all requirements of Instructions for filling out the monitoring report form /29/ and “Clean development mechanism project standard” /27/. • No CARs/CLs/FARs raised in this section.
Conclusion	According to Para. 382 of VVS Version 09.0 /26/, CTC verification team confirms that the monitoring report /2/ was in compliance with relevant monitoring report form and instructions therein.

E.2. Remaining forward action requests from validation and/or previous verification

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Through checking the validation report /23/, the team confirmed no remaining issues from the validation were left. This is the first periodic verification.

E.3. Compliance of the project implementation with the registered project design document

Means of verification	The verification team has performed an on-site inspection to assess: <ul style="list-style-type: none"> a) If all physical features (technology, project equipment, and monitoring and metering equipment) of the PDD are in place. b) If the PP has operated the project activity as per the PDD /22/.
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	<p>The verification team has:</p> <ul style="list-style-type: none">• Applied the GPS instruments to check the project location and geo-coordinates;• Checked onsite the Nameplates of the main equipments /13/ to confirm that the project equipment installation is consistent with the PDD /22/.• Onsite checked the electricity meters and diagram of power connection system /6/ to confirm monitoring and metering equipment are in place.• Reviewed operation daily logs /10/ and the power purchase agreement (PPA) /7/ between the project owner and the power grid, to confirm the Project has been operated as per the PDD /22/. <p>Interviewed relevant personnel for the project implementation information, and assessed the construction and implementation status with the Construction start order, Commission Completion Report, and Operation log of the Project /8//9//10/ to check the implementation status of the Project.</p>																														
Findings	<p>The Project is located in Luquan County, Kunming City, Yunnan Province. As described in the MR /2/ and the PDD /22/, the geographical coordinates of the Project are east longitude 102.7561°E and north latitude 26.1522° (dam site); 102.7636°E, 26.2000° (powerhouse site). These have been verified through GPS instruments during the on-site visit. The geographical information of the Project has been correctly reported in the MR /2/.</p> <p>The electricity generated by the Project is supplied to China Southern Power Grid, which can be confirmed in the PPA /7/. The type of turbines is HLA800-LJ-280 and the type of the generators is SF80-20/6500 Through checking the Nameplates of the main equipments /13/, the verification team can confirm the information of the actually installed equipments has been consistently reported in the MR /2/. The parameters of the 3 sets of turbine-generator unit are provided in the table as below, which are fully consistent with the PDD and the project design is not changed.</p> <p>Table 1 the type and parameter of turbines and generators of the Project</p> <table><tr><th>Equipment</th><th>Item</th><th>Parameter</th></tr><tr><td rowspan="5">Water turbine</td><td>Type</td><td>HLA800-LJ-280</td></tr><tr><td>Number</td><td>3</td></tr><tr><td>Rated water head</td><td>150m</td></tr><tr><td>Rated flow</td><td>59.2m3/s</td></tr><tr><td>Rated rotational speed</td><td>300r/min</td></tr><tr><td rowspan="5">Generator</td><td>Type</td><td>SF80-20/6500</td></tr><tr><td>Number</td><td>3</td></tr><tr><td>Rated Power</td><td>80MW¹</td></tr><tr><td>Rated Voltage</td><td>13.8kV</td></tr><tr><td>Rated Power factor</td><td>0.85</td></tr><tr><td rowspan="2">Main Transformer</td><td>Type</td><td>SSP11-100000/220</td></tr><tr><td>Rated capacity</td><td>100000kVA</td></tr></table> <p>Therefore the verification confirmed there is no changes from the project</p>	Equipment	Item	Parameter	Water turbine	Type	HLA800-LJ-280	Number	3	Rated water head	150m	Rated flow	59.2m3/s	Rated rotational speed	300r/min	Generator	Type	SF80-20/6500	Number	3	Rated Power	80MW ¹	Rated Voltage	13.8kV	Rated Power factor	0.85	Main Transformer	Type	SSP11-100000/220	Rated capacity	100000kVA
Equipment	Item	Parameter																													
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	Rated Power factor	0.85																													
Main Transformer	Type	SSP11-100000/220																													
	Rated capacity	100000kVA																													

¹ Despite that the rated power of the generators, 80MW, is not shown on the nameplates, the rated power 80MW can be resulted from the rated capacity 94118kVA of the generator on the nameplates multiply the power factor 0.85. Besides, the type of the generators SF80-20/6500 means that the rated power is 80MW.

design to actual implementation have been identified during this verification. The operation of the project activity has been conducted in accordance with the description of the PDD /22/.

According to the Construction start order /8/, Commission Completion Report /9/ and Operation log of the Project /10/, the Project started construction on 19/05/2009 and the Project was commissioned on 24/06/2014 (Commissioning date of No.3 Generator). No.2 and No.1 Generator were commissioned on 28/07/2014 and 21/08/2014 respectively. During this monitoring period (01/02/2013 to 31/12/2015), the Project has been operated normally and there have been no events or situations that occurred which may impact the applicability of the applied methodology.

The verification team checked the Commission Completion Report /9/ and Operation log of the Project /10/, and found that the commission dates of the turbine generators are not consistent with the evidence. Then the CAR-1 has been raised.

CAR-1: Commission dates of the turbine generators shall be revised according to the evidence.

Revised commission dates of the turbine generators are checked and found consistent with the evidence /9/. Since the estimated emission reductions in the monitoring report is calculated with the total actual operating days of the three turbine generators, it is recalculated after the commission dates of the turbine generators have been revised. The verification team has checked the calculation of the estimated emission reductions and found it correct. This CAR is closed.

[Power System] According to the diagram of the power connection system /6/ and the PPA /7/ checked during the site visit, electricity generated by the Project is delivered to the China Southern Power Grid.

[Metering System] Two bi-directional main meters with 0.2S accuracy was installed at 220KV transmission line at plant side which can record electricity both from the Project to the grid and from the grid to the Project.

During the onsite check, the verification team found that the meter location is not consistent with the registered monitoring plan. Then the following CAR is raised.

CAR-2: The meter location is not consistent with the registered monitoring plan. Different functions of the meters A and A' shall be specified. CDM monitoring and management manual shall also be revised according to the actual meter location.

The monitoring plan in the revised PDD changes the location of the meters, which is in accordance with the power purchase agreement (PPA) signed between the PP and the grid company /7/. Besides, the meters A and A' are not included in the revised monitoring plan, and the functions of the meters are specified in the revised monitoring plan. The monitoring parameters and electricity calculation method and the CDM monitoring and management manual have been revised accordingly. It is confirmed by checking the Appendix 1 of the PS version 9.0 that change of location of meters in accordance with a power purchase agreement (PPA) does not require prior approval by the Board. The verification team confirm that the actual monitoring activities comply with the revised monitoring plan. This

	<p>revised PDD and it's validation report are submitted with this verification report. The changes to the registered monitoring plan described in the revised PDD are in compliance with the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.</p> <p>This CAR is closed.</p>
Conclusion	<p>According to Para. 385 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> • The implementation status and equipments installation of the project activity are consistent with the PDD /22/; • The actual operation of the CDM project activity is as per the PDD /22/ by the PP; • Information (data and variables) provided in the monitoring report /2/ is in accordance with that stated in the PDD /22/.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

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As per the conclusion in section E.5 and E.6, there are no temporary deviations from registered monitoring plan or applied methodology.

E.4.2. Corrections

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N/A

E.4.3. Changes to the start date of the crediting period

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N/A

E.4.4. Inclusion of a monitoring plan to a registered project activity

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N/A. The verification team has checked the PDD (Version 04.4, dated 10/10/2012) /22/ to confirm a monitoring plan included in the PDD prior to the submission of the request for issuance.

E.4.5. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

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It is found that the location of the meters has been changed as per the power purchase agreement (PPA). Hence the PP submitted the revised PDD containing the revised monitoring report. It is confirmed by checking the Appendix 1 of the PS version 9.0 that change of location of meters in accordance with a power purchase agreement (PPA) does not require prior approval by the Board. This revised PDD and it's validation report are submitted with this verification report /22//24/.

The revised monitoring plan in the revised PDD changes the location of the meters, which is in accordance with the power purchase agreement (PPA) signed between the PP and the grid company /7/. Besides, in the revised monitoring plan, the functions of the meters are specified, the monitoring parameters and electricity calculation method and the CDM monitoring and management manual have been revised accordingly. The verification team confirm that the actual

monitoring activities comply with the revised monitoring plan. The changes to the registered monitoring plan described in the revised PDD are in compliance with the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.

E.4.6. Changes to the project design of a registered project activity

>>

N/A

E.4.7. Types of changes specific to afforestation and reforestation project activities

>>

N/A

E.5. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	The revised monitoring plan included in the PDD /22/ of the Project has been assessed against the monitoring methodology ACM0002 Version 13.0.0 /25/.
Findings	Through review of the revised monitoring plan against the monitoring methodology ACM0002 Version 13.0.0 /25/, the verification team confirmed that the revised monitoring plan in the PDD /22/ is in accordance with the applied monitoring methodology ACM0002 Version 13.0.0 /25/. The on-site assessment further demonstrated there are no monitoring aspects of the Project that are not specified in the methodology ACM0002 Version 13.0.0 /25/. No CARs/CLs/FARs raised in this section.
Conclusion	CTC verification team confirms that the revised monitoring plan in the PDD /22/ is in accordance with the applied methodology, i.e. ACM0002 Version 13.0.0 /25/. Therefore, the Project is also in compliance with Para. 388 of VVS Version 09.0 /26/.

E.6. Compliance of monitoring activities with the registered monitoring plan

E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	The data and parameters fixed ex-ante include the baseline emission factor ($EF_{grid,CM,y}$), Installed capacity of the hydro power plant before the implementation of the Project activity (Cap_{BL}), and Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (A_{BL}). These parameters reported in the MR /2/ have been checked against the PDD /22/ and the applied methodology /25/ by the verification team.
Findings	CAR-3 The data and parameters fixed ex ante or at renewal of crediting period, including CAP_{BL} and A_{BL} shall be included in the section D.1 of the monitoring report. The revised monitoring report has been checked and it is confirmed that the data and parameters fixed ex ante or at renewal of crediting period, including CAP_{BL} and A_{BL} have been included in the section D.1 of the monitoring report. This CAR is closed.

Conclusion	<p>In conclusion, according to Para. 392 and 393 of VVS (Version 09.0) /26/ and based on CTC's local and sectorial knowledge, CTC confirms that:</p> <p>The data and parameters fixed ex-ante have been correctly listed. Parameters fixed ex-ante for required parameters have been verified by checking the information flow and in compliance with the revised monitoring plan of the PDD /22/.</p>
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E.6.2. Data and parameters monitored

Means of verification	<p>According to Para. 390 of VVS Version 09.0 /26/, CTC verification team has performed the following activities to determine whether the monitoring of parameters related to the GHG emission reductions has been implemented in accordance with the monitoring plan.</p> <p>(a) Through the on-site inspection of the monitoring system, interview with the operation staff, document review including relevant records, procedures and technical specifications, the verification team has assessed the implementation of the monitoring plan followed by the PP;</p> <p>(b) The parameters stated in the monitoring plan have been checked by means above;</p> <p>(c) The verification team has checked the installation of the electricity meter by onsite inspection against PPA /7/, diagram of power connection system /6/ and calibration reports /16/ by qualified third party;</p> <p>(d) The Meter Readings of the Project /11/ and Electricity Transaction Notes /12/ were checked by the verification team to confirm the monitoring results;</p> <p>(e) Based on the interview with the top management and operation staff and the review of the CDM Monitoring & Management Manual /19/, CTC verification team has assessed the quality assurance and quality control procedures applied by the PP.</p> <p>No sampling plan was involved in the project activity.</p>
Findings	<p>According to the revised monitoring plan, the parameters which need to be monitored include:</p> <p>(1) Baseline emission parameters:</p> <p>$EG_{\text{feed-in},y}$ Feed-in electricity supplied by the Project to the grid in year y</p> <p>$EG_{\text{imported},y}$ Electricity imported from the grid in year y</p> <p>$EG_{\text{facility},y}$ Quantity of net electricity generation supplied by the Project to the grid in year y</p> <p>The baseline emissions of the Project is calculated as:</p> $BE_y = EG_{\text{facility},y} \times EF_{\text{grid,CM},y} = (EG_{\text{feed-in},y} - EG_{\text{imported},y}) \times EF_{\text{grid,CM},y}$ <p>According to the diagram of the power connection system /6/ and the PPA /7/ checked during the site visit, electricity generated by the Project is delivered to the China Southern Power Grid. Two bi-directional main meters with 0.2S accuracy was installed at 220KV transmission line at plant side which can record electricity both from the Project to the grid and from the grid to the Project.</p> <p>The verification team has checked on-site the location of the meters and concluded the meters have been installed in accordance with the revised PDD /22/. During this monitoring period, the meters functioned well and the</p>

	<p>replacement of the meter does not impact the accuracy and completeness, and does not impact the calculation of the emission reductions. The data from the main meter is adopted to calculate emission reductions. The electricity parameters are continuously measured and monthly recorded. The verification team has verified the data provided in the monitoring report /2/ and ER spreadsheet /3/ against the relevant documented evidences i.e. the Meter Readings of the Project /11/ and Electricity Transaction Notes /12/ and found them to be consistent with the evidences. The Meter Readings of the Project /11/ and Electricity Transaction Notes /12/ can cover this monitoring period. Monitored electricity data from Meter Readings of the Project /11/ is crosschecked with Electricity Transaction Notes /12/ and the conservative data is used to calculate emission reductions. For details of verification of values please refer to section E.8.1.</p> <p>(2) Project emission parameters:</p> <p>The Project is a hydro power generation plant with a power density higher than 10W/m^2 and the project emission is not considered as per the PDD and methodology ACM0002 Version 13.0.0.</p> <p>The Cap_{PJ} is monitored annually according to the PDD and checked against the Nameplates of the main equipments /13/ and found consistent. The A_{PJ} is monitored annually according to the PDD by a third party PowerChina Kunming Engineering Corporation Limited with the certificate No. B153000839-4/2 /15/.</p> <p>(3) Leakage emission parameters:</p> <p>No parameters related to leakage need to be considered according to ACM0002 Version 13.0.0.</p> <p>Management and operational system:</p> <p>The PP has the responsibility of overall monitoring, which has established a monitoring team for monitoring of power generation, maintenance and operation of the CDM Project activity. All the records related to generation and maintenance have been maintained.</p> <p>Responsibilities have been allocated to well-trained monitoring staff as per the revised monitoring plan.</p> <p>The QA/QC procedures are part of management system and are documented in management procedures.</p> <p>The records and all relevant paper based information are well archived by the project owner and available for verification.</p> <p>The responsibilities and the procedures included in the CDM Monitoring & Management Manual /19/ have been verified. CDM Monitoring & Management Manual /19/ and internal training records /20/ have been provided and verified by the verification team.</p>
<p>Conclusion</p>	<p>Corresponding to the paragraph 392 and 393 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> • The monitoring has been carried out in accordance with the revised monitoring plan contained in the PDD /22/. • All parameters required by the revised monitoring plan have been sufficiently monitored and correctly listed. The monitored data for

	required parameters have been verified by checking the whole information flow.
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E.6.3. Implementation of sampling plan

Means of verification	All the data and information has been checked during verification, thus no sampling plan has been applied in the project.
Findings	N/A
Conclusion	N/A

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	<p>The monitoring plan requires that accuracy of meters is 0.2S and the electricity meters shall be calibrated annually.</p> <p>The verification team has verified the calibration reports /16/ against the monitoring plan and relevant national or local standards.</p>																														
Findings	<p>CAR-4: Calibration information of the electricity meters shall be reported in the monitoring report. Serial numbers of the electricity meters shall be corrected and meter replacement information shall be reported in the monitoring report.</p> <p>The revised monitoring report has been checked and it is confirmed that the calibration information of the electricity meters, serial numbers of the electricity meters and meter replacement information have been included or corrected in the monitoring report, which are found consistent with the evidence /16//18/. It is confirmed that the replacement of the meter does not impact the accuracy and completeness by checking the meter replacement record /18/.</p> <p>This CAR is closed.</p> <p>The following electricity meters are involved in the monitoring system. During this monitoring period, all the meters have been operating well and were duly calibrated. The main meter and backup meter have been replaced on 25/07/2014. The replacement record /18/ has been checked by the verification team. Through on-site observation and checking calibration reports /16/, the verification team confirmed the information of metering equipments has been consistently reported in the MR /2/, as below :</p> <table><tr><th>Meter ID</th><th>Serial number</th><th>Accur acy</th><th>Calibration date</th><th>Validity</th><th>Calibration entity</th></tr><tr><td>main meter (before replacement)</td><td>213138106</td><td>0.2S</td><td>10/06/2014²</td><td>10/06/2014 to 09/06/2015</td><td>Yunnan Electric Power Technology Co., Ltd. /17/</td></tr><tr><td>backup meter (before replacement)</td><td>209163761</td><td>0.2S</td><td>10/06/2014²</td><td>10/06/2014 to 09/06/2015</td><td>Yunnan Electric Power Technology Co., Ltd. /17/</td></tr><tr><td>main meter (after replacement)</td><td>209163771</td><td>0.2S</td><td>20/07/2014 and 13/07/2015</td><td>20/07/2014 to 12/07/2016</td><td>Yunnan Electric Power Technology Co., Ltd. /17/</td></tr><tr><td>backup meter (after replacement)</td><td>209163762</td><td>0.2S</td><td>20/07/2014 and 13/07/2015</td><td>20/07/2014 to 12/07/2016</td><td>Yunnan Electric Power Technology Co., Ltd. /17/</td></tr></table>	Meter ID	Serial number	Accur acy	Calibration date	Validity	Calibration entity	main meter (before replacement)	213138106	0.2S	10/06/2014 ²	10/06/2014 to 09/06/2015	Yunnan Electric Power Technology Co., Ltd. /17/	backup meter (before replacement)	209163761	0.2S	10/06/2014 ²	10/06/2014 to 09/06/2015	Yunnan Electric Power Technology Co., Ltd. /17/	main meter (after replacement)	209163771	0.2S	20/07/2014 and 13/07/2015	20/07/2014 to 12/07/2016	Yunnan Electric Power Technology Co., Ltd. /17/	backup meter (after replacement)	209163762	0.2S	20/07/2014 and 13/07/2015	20/07/2014 to 12/07/2016	Yunnan Electric Power Technology Co., Ltd. /17/
Meter ID	Serial number	Accur acy	Calibration date	Validity	Calibration entity																										
main meter (before replacement)	213138106	0.2S	10/06/2014 ²	10/06/2014 to 09/06/2015	Yunnan Electric Power Technology Co., Ltd. /17/																										
backup meter (before replacement)	209163761	0.2S	10/06/2014 ²	10/06/2014 to 09/06/2015	Yunnan Electric Power Technology Co., Ltd. /17/																										
main meter (after replacement)	209163771	0.2S	20/07/2014 and 13/07/2015	20/07/2014 to 12/07/2016	Yunnan Electric Power Technology Co., Ltd. /17/																										
backup meter (after replacement)	209163762	0.2S	20/07/2014 and 13/07/2015	20/07/2014 to 12/07/2016	Yunnan Electric Power Technology Co., Ltd. /17/																										
[Instrument accuracy]																															

² This date is prior to the first operation date of the turbine generators.

	<p>The verification team has verified the calibration reports /16/. All the meters comply with those described in the revised monitoring plan and are in compliance with the industry standard Technical Administrative Code of Electric Energy Metering (DL/T 448-2000) /4/.</p> <p>[Calibration frequency]</p> <p>The calibration frequency fulfills the requirement as described in the revised monitoring plan and is in compliance with the industry standard Verification Regulation of Electrical Meters for Measuring Alternating-current Electrical Energy (JJG 596-2012) /5/.</p> <p>[Calibration validity]</p> <p>The validity of the reported calibrations covered the period from the first commissioning date to the end date of this monitoring period.</p>
Conclusion	<p>Corresponding to the paragraph 400 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> The calibration is conducted at the frequency as specified by the methodology /25/ and the revised monitoring plan contained in the PDD /22/.

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	<p>According to the Para.402 of VVS Version 09.0 /26/, the verification team has performed the following activities to assess the data and calculations of GHG emission reductions achieved by the Project as per the methodology /25/:</p> <p>(a) Through desk review and on-site inspection on the monthly electricity reports and electricity invoice, to verify that a complete set of data for the specified monitoring period is available.</p> <p>(b) Information provided in the monitoring report /2/ has been cross-checked with other sources such as Electricity Transaction Notes /12/.</p> <p>(c) Review the calculations of baseline GHG emissions have been carried out in accordance with the formulae and methods described in the PDD /22/, and the methodology /25/;</p> <p>(d) Review emission factors, IPCC default values, GWPs and other reference values as per the PDD /22/.</p>
Findings	<p>According to the PDD /22/ and the applied methodology /25/, the baseline emissions are the baseline emission factor times the net electricity supplied to the grid. Therefore,</p> <p>The baseline emissions (BE_y) of the Project is calculated as:</p> $BE_y = EG_{\text{facility},y} \times EF_{\text{grid,CM},y} = (EG_{\text{feed-in},y} - EG_{\text{imported},y}) \times EF_{\text{grid,CM},y}$ <p>Where</p> <p>$EG_{\text{feed-in},y}$ Feed-in electricity supplied by the Project to the grid in year y</p> <p>$EG_{\text{imported},y}$ Electricity imported from the grid in year y</p> <p>$EG_{\text{facility},y}$ Quantity of net electricity generation supplied by the Project to the grid in year y</p> <p>$EF_{\text{grid,CM},y}$ is the emission factor of China Southern Power Grid in year y,</p>

	<p>calculated in the PDD /22/, which has been determined ex-ante as 0.7134tCO₂/MWh for this crediting period 01/02/2013 – 31/01/2020 (renewable) and thus is applicable to this monitoring period (01/02/2013 to 31/12/2015).</p> <p>CL-1: Some documents shall be provided, including the sales receipts of electricity supplied by the Project to the grid of October 2014 and electricity imported from the grid, calibration reports and accreditation certification of the calibrator, reservoir surface area monitoring report, etc.</p> <p>The verification team has verified the requested documents, including the sales receipts of electricity supplied by the Project to the grid of October 2014 and electricity imported from the grid, calibration reports and accreditation certification of the calibrator, reservoir surface area monitoring report, and can confirm that the information in the monitoring report is consistent with these documents. This CL is closed.</p> <p>So the baseline emissions (BE_y) are calculated as follow:</p> $BE_y = EG_{\text{facility},y} \times EF_{\text{Grid,CM},y} = 1,066,637.74\text{MWh} \times 0.7134\text{tCO}_2/\text{MWh} = 760,939 \text{ tCO}_2\text{e}$ <p>The verification team confirmed the calculation of baseline emissions as reported in the MR /2/ and the ER spreadsheet /3/ is correct.</p>
Conclusion	<p>Corresponding to the paragraph 403 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> • A complete set of data for the monitoring period is available. • Information on the baseline GHG emission calculation provided in the monitoring report /2/ has been cross-checked with other sources. • Calculations of baseline emissions have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document. • There are no assumptions applied. • Appropriate emission factor of the power grid has been correctly applied.

E.8.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	The verification team has reviewed the project emission calculation as per the PDD /22/ and the applied methodology /25/.
Findings	<p>During this monitoring period, area of the reservoir when the reservoir is full (A_{PJ}) is 3,570,000m² and the total installed capacity (Cap_{PJ}) is 240,000,000W, then power density (PD) is calculated as:</p> $PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}} = (240,000,000 - 0) / (3,570,000 - 0) = 67.23\text{W/m}^2 > 10 \text{ W/m}^2$ <p>Therefore, project emissions of the Project are zero as per the methodology and the PDD.</p>
Conclusion	<p>Corresponding to the paragraph 403 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> • A complete set of data for the monitoring period is available.

	<ul style="list-style-type: none"> Information on the project GHG emission calculation provided in the monitoring report /2/ has been cross-checked with other sources. Calculations of project emissions have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document.
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E.8.3. Calculation of leakage GHG emissions

Means of verification	The verification team has reviewed the leakage calculation as per the PDD /22/ and the applied methodology /25/.
Findings	<p>No leakage needs to be considered according to ACM0002 Version 13.0.0 /25/. $L_y=0$</p> <p>No CARs/CLs/FARs raised in this section.</p>
Conclusion	<p>Corresponding to the paragraph 403 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> A complete set of data for the monitoring period is available. Information on the leakage GHG emission calculation provided in the monitoring report /2/ has been cross-checked with other sources. Calculations of leakage have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document.

E.8.4. Summary of calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	The verification team has reviewed the calculation of GHG emission reductions in the final MR /2/ and the ER spreadsheet /3/ as per the PDD /22/ and the applied methodology /25/.
Findings	<p>The emission reductions during the monitoring period (01/02/2013 to 31/12/2015) are calculated as:</p> $ER_y = BE_y - PE_y - L_y = 760,939 - 0 - 0 = 760,939 \text{ tCO}_2\text{e.}$ <p>The team confirmed the calculation of emission reductions as reported in the MR /2/ and the ER spreadsheet /3/ is correct.</p> <p>No CARs/CLs/FARs raised in this section.</p>
Conclusion	<p>Corresponding to the paragraph 403 of VVS Version 09.0 /26/, CTC verification team confirms that:</p> <ul style="list-style-type: none"> A complete set of data for the monitoring period is available. Information provided in the monitoring report /2/ has been cross-checked with other sources; Calculations of baseline emissions, and project activity emissions and leakage, as appropriate, been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document. There are no assumptions in emission reductions calculation. Appropriate emission factor of the power grid has been correctly applied.

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	The comparison of actual GHG emission reductions with estimates in PDD /22/ has been checked and re-calculated by the verification team.
Findings	<p>According to the PDD /22/, the annual emission reductions were estimated as 780,106 tCO₂e. The value of estimated emission reductions during this monitoring period in the PDD /22/ are 1,122,783 tCO₂e. This estimation is calculated with the total actual operating days of the three turbine generators. The verification team has checked the calculation of this estimation in the emission reductions calculation spreadsheet and found it is correct.</p> <p>Based on the above assessment, the emission reduction during the monitoring period (01/02/2013 to 31/12/2015) is verified as 760,939 tCO₂e, which are lower than the estimated value in the monitoring period.</p> <p>No CARs/CLs/FARs raised in this section.</p>
Conclusion	<p>Corresponding to the paragraph 256 of CDM Project Standard Version 09.0 /26/, CTC can confirm that:</p> <p>A comparison of actual GHG emission reductions or net anthropogenic GHG removal of the project activity achieved during this monitoring period with the estimates in the PDD /22/ has been provided in the Monitoring Report /2/.</p> <p>The verification team confirms that the calculation of the comparison is correct.</p>

E.8.6. Remarks on difference from estimated value in registered PDD

Means of verification	The verified emission reductions are lower than the estimated value in the monitoring period. Thus, no remarks need to be provided in the MR /2/.
Findings	<p>By checking the calculation of the estimated emission reductions, the verification team confirms this calculation is valid and reasonable. The verified emission reductions are lower than the estimated value in the monitoring period. Thus, no remarks need to be provided in the MR /2/.</p> <p>No CARs/CLs/FARs raised in this section.</p>
Conclusion	Not applicable.

E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	The verification team has reviewed the monitoring report with the meter reading records, electricity transaction notes to assess whether the GHG emission reductions or removals has been correctly calculated based on a pro-rata approach.
Findings	<p>The project started operation after 01/01/2013. For this monitoring period, the emission reductions are 0 tCO₂e during the first commitment period; and the emission reductions are 760,939tCO₂e from 01/01/2013 onwards.</p> <p>No CARs/CLs/FARs raised in this section.</p>
Conclusion	According to Para.254 of CDM Project Standard Version 09.0 /26/, CTC verification team confirms that the project participants have calculated GHG emission reductions or removals reasonably.

SECTION F. Internal quality control

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CTC has taken the following quality control measures within the verification team and of the verification process according to relevant CTC's internal procedures:

- The application review of the verification was conducted and concluded that CTC has the accredited scope and competence to verify the Project with impartiality as well;
- The verification team was selected with due considerations given in terms of the competence and impartiality;
- The verification team carried out the verification work and compiled a verification report strictly following CTC's Procedures for Implementation of Verification.

The verification report submitted by the verification team was subjected to a technical review and decision-making process, the technical reviewers and decision-makers are qualified and independent from the verification team. If any issue is raised during technical review and/or decision-making the same is to be discussed between the issue-raiser and the team leader as well as the PP. All issues must be satisfactorily addressed before the submission of the report for final approval. The persons who conducted the technical review and decision-making for the Project are shown in section B.2 this report and their Certificates of Competence can be found in Appendix 2 of this report.

The report approved by the authorized official of CTC as the final report together with relevant documents are submitted to CDM EB through the UNFCCC dedicated web-platform for request for issuance (only if an unconditioned positive verification/certification opinion is concluded).

SECTION G. Verification opinion

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The verification team assigned by the CTC concludes that the CDM Project "Yunnan Jiayan Hydropower Project" in P.R.China, as described in the revised monitoring plan contained in the PDD /22/ (Version 04.4, 10/10/2012), and Monitoring Report (Version 02, 07/11/2016) /2/, meets all relevant requirements of the UNFCCC for CDM project activities including article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakesh Accords) and the subsequent decisions by the COP/MOP and CDM Executive Board. The verification is conducted in line with the VVS /26/ requirements.

The verification was executed by taking the following methods and in the following steps so far:

- Publication of the MR on the UNFCCC website (on 06/04/2016)
- Desk review of Monitoring Report Version 01 dated 05/04/2016 and related documents
- On-site inspection and interviews (on 30/08/2016)
- Raise corrective action requests (CARs) and clarification requests (CLs)
- Desk review of revised MR (Version 02, 07/11/2016) /2/ and responses to CARs/CLs/FARs
- Issue of this version of the verification report

The Project is implemented according to selected monitoring methodology ACM0002 Version 13.0.0 /25/ and the revised monitoring plan contained in the PDD /22/. The monitoring equipment was installed, calibrated and maintained in a proper manner. The monitoring system is in place and the Project is generating GHG emission reductions as a CDM project.

CTC therefore issues the positive verification opinion expressed in the Certification statement in Section H.

SECTION H. Certification statement

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CTC has carried out the 1st periodic verification of the Project “Yunnan Jiayan Hydropower Project” (UNFCCC reference No.9031). This verification covers the period from 01/02/2013 to 31/12/2015 (first and last days included).

In the course of the verification 4 Corrective Action Request (CAR) and 1 Clarification Requests (CLs) were raised and successfully closed. The verification is based on the Monitoring Report Version 01 dated 05/04/2016 /1/, the revised Monitoring Report Version 02 dated 07/11/2016 /2/, the revised PDD /22/ and the relevant validation report, ER Spreadsheet /3/, and supporting documents available to CTC.

As the result of the 1st periodic verification, CTC confirms that:

- The project activity has been implemented and operated as per the PDD /22/ and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- The monitoring report /2/ and other supporting documents provided are complete in accordance with the latest applicable version of the completeness checklist for requests for issuance of CERs and in accordance with applicable CDM requirements;
- The actual monitoring systems and procedures are in place and functional, and comply with the monitoring systems and procedures described in the revised monitoring plan;
- The revised monitoring plan is in accordance with the applied methodology, i.e., ACM0002 Version 13.0.0 /25/;
- The installed equipment for measuring parameters required for calculating emission reductions are calibrated appropriately.
- The GHG emission reductions are calculated without material omission, errors, misstatements and in a conservative and appropriate manner.

CTC hereby certifies that the Project has achieved emission reductions as follows:

Actual emission reduction for the monitoring period up to (and including) 31 December 2012	0 tCO ₂ e
Actual emission reduction for the monitoring period from (and including) 1 January 2013	760,939 tCO ₂ e
Total amount of GHG emission reductions or net GHG removals by sinks achieved in this monitoring period (01/02/2013 to 31/12/2015)	760,939 tCO ₂ e

For and on behalf of CTC

Authorized Signature

Name: Chen Lu

Date: 07/11/2016

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline emissions
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification request
CM	Combined Margin
CO ₂ e	Carbon Dioxide Equivalent
CSPG	China Southern Power Grid
CTC	China Building Material Test & Certification Group Co., Ltd.
DOE	Designated operational entity
DNA	Designated National Authority
EB	Executive Board
EF	Emission factor
ER	Emission reductions
ETN	Electricity Transaction Notes
FAR	Forward action request
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
LE	Leakage emissions
MERs	Monthly electricity reports
MP	Monitoring Plan
MR	Monitoring report
MW/MWh	Megawatt / Megawatt hour
OM	Operating Margin
PCP	Project Cycle Procedure
PDD	Project Design Document
PE	Project emissions
PO	Project owner
PP	Project Participant
PPA	Power Purchase Agreement
PS	Project Standard
S/N	Serial Number
tCO ₂ e	Tonne of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Mr. Lucas Dou holds a bachelor degree in Polymer and a master degree in Material Science. He gained more than 7 years' experience in Clean Development Mechanism in P. R. China. He obtained the certificate of CDM Lead Verifier, Lead Auditor for ISO 14001 and Certified Measurement & Verification Professional (CMVP), and has successfully completed the course assessment for ISO 14064:2006. He has experience in CDM validation and verification for more than 100 projects that applied technologies of renewable energy, waste heat/gas recovery, biomass residues power generation, landfill gas power generation, natural gas power generation, etc. His qualification, industrial experience and experience in CDM demonstrate his sufficient sectoral competence in "Manufacturing industries (Cement and lime production)" and "Energy industries (Renewables)".

Mr. Ernesto Tan holds a bachelor degree in Geology and a master degree in Structural Geology. He gained more than 2 years' technical experience in Petroleum Exploitation and Storage & Transportation sector and more than 7 years' experience in Clean Development Mechanism in P.R China. He obtained the certificate of Climate Change Lead Verifier and Auditor for ISO 14001. He has experience in CDM validation and verification for more than 200 projects that applied technologies of renewable energy, waste heat/gas recovery, energy distribution, energy demand, N₂O abatement, oil and gas industry, coal mine methane recovery and use, SF₆ capture and destruction, etc. His qualification, industrial experience and experience in CDM demonstrate his sufficient sectoral competence in "Energy industries (Renewables)".

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Monitoring Report Version 01	Dated 05/04/2016	PP
2.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Final monitoring report Version 02	Dated 07/11/2016	PP
3.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Emission reductions calculation spreadsheet Version 02	Dated 07/11/2016	PP
4.	Industry standard	Technical Administrative Code of Electric Energy Metering (DL/T 448-2000)	/	PP
5.	Industry standard	Verification Regulation of Electrical Energy Meter with Electronics (JJG 596-2012)	/	PP
6.	/	Diagram of power connection system of the Project	/	PP
7.	/	Signed Power Purchase Agreement (PPA) with grid company	Dated 12/06/2014	PP
8.	Supervision company	Construction start order	Dated 30/06/2009	PP
9.	Grid company	Commission Completion Report	/	PP
10.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Operation log of the Project	/	PP
11.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Meter Readings of the Project	/	PP
12.	Grid company	Electricity Transaction Notes	/	PP
13.	Harbin (Kunming) Electric Machinery Company Limited, China	Nameplates of the main equipments	/	PP
14.	PowerChina Kunming Engineering Corporation Limited	Reservoir surface area monitoring report	Dated 27/12/2014 and 29/12/2015	PP
15.	Ministry of Housing and Urban-Rural Development of PRC	Qualification certificate of the organization monitoring the reservoir surface area	B153000839-4/2, valid until 17/04/2020	PP
16.	/	Calibration reports	/	PP
17.	Yunnan Administration of Quality and Technology Supervision	Certificate of metrological authorization to Yunnan Electric Power Technology Co., Ltd., whose authorized certificates are No. 2014250119Z with the valid period 03/06/2014 to 02/06/2017	/	PP
18.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Meter replacement record	Dated 25/07/2014	PP
19.	Yunnan Dianneng Luquan	CDM Monitoring and	/	PP

	Dianlin Development Co., Ltd	Management Manual		
20.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Internal Training Records and Qualification Certificate of Operation Staff	/	PP
21.	China Carbon Futures (Beijing) Asset Management Co., Ltd. (consulting company)	Registered PDD Version 04.3	Dated 25/10/2012	PP
22.	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	PDD Version 04.4	Dated 10/10/2012	PP
23.	TÜV Rheinland	Validation report Version 01.3	Dated 19/12/2012	PP
24.	CTC	Validation report for the revised PDD Version 01	Dated 04/11/2016	Others
25.	UNFCCC CDM-EB	Methodology ACM0002 Version 13.0.0	/	Others
26.	UNFCCC CDM-EB	Validation and verification standard Version 09.0	Dated 20/02/2015	Others
27.	UNFCCC CDM-EB	Project standard Version 09.0	Dated 20/02/2015	Others
28.	UNFCCC CDM-EB	Project cycle procedure Version 09.0	Dated 20/02/2015	Others
29.	UNFCCC CDM-EB	Monitoring report form Version 05.1	/	Others

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

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	N/A	Section no.	N/A	Date : N/A
Description of FAR				
N/A				
Project participant response				Date : N/A
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date: N/A
N/A				

Table 2. CL from this verification

CL ID	CL-1	Section no.	E.8	Date : 31/08/2016
Description of CL				
Some documents shall be provided, including the sales receipts of electricity supplied by the Project to the grid of October 2014 and electricity imported from the grid, calibration reports and accreditation certification of the calibrator, reservoir surface area monitoring report, etc.				
Project participant response				Date : 10/10/2016
The documents mentioned above have been sent to DOE for verification.				
Documentation provided by project participant				
Sales receipts of electricity supplied by the Project to the grid of October 2014 and electricity imported from the grid Calibration reports and accreditation certification of the calibrator Reservoir surface area monitoring report				
DOE assessment				Date : 04/11/2016
The verification team has verified the requested documents, including the sales receipts of electricity supplied by the Project to the grid of October 2014 and electricity imported from the grid, calibration reports and accreditation certification of the calibrator, reservoir surface area monitoring report, and can confirm that the information in the monitoring report is consistent with these documents. This CL is closed.				

Table 3. CAR from this verification

CAR ID	CAR-1	Section no.	E.3	Date : 31/08/2016
Description of CAR				
Commission dates of the turbine generators shall be revised according to the evidence.				
Project participant response				Date : 10/10/2016
It has been revised in the monitoring report.				
Documentation provided by project participant				
Revised monitoring report				
DOE assessment				Date : 04/11/2016
Revised commission dates of the turbine generators are checked and found consistent with the evidence /9/. Since the estimated emission reductions in the monitoring report is calculated with the total actual operating days of the three turbine generators, it is recalculated after the commission dates of the turbine generators have been revised. The verification team has checked the calculation of the estimated emission reductions and found it correct. This CAR is closed.				

CAR ID	CAR-2	Section no.	E.6.2	Date : 31/08/2016
Description of CAR				
The meter location is not consistent with the registered monitoring plan. Different functions of the meters A and A' shall be specified. CDM monitoring and management manual shall also be revised according to the actual meter location.				

Project participant response	Date : 10/10/2016
According to "clean development mechanism project standard" issued by EB, change of location of meters in accordance with a power purchase agreement (PPA) does not require prior approval by the Board. The monitoring plan has been updated in the revised PDD. In the revised PDD, there are no meters A and A', and functions of the meters have been specified (one main meter and one backup meter). CDM monitoring and management manual has been revised and sent to DOE for verification.	
Documentation provided by project participant	
Revised PDD Revised monitoring report Revised CDM monitoring and management manual	
DOE assessment	Date : 04/11/2016
The monitoring plan in the revised PDD changes the location of the meters, which is in accordance with the power purchase agreement (PPA) signed between the PP and the grid company /7/. Besides, the meters A and A' are not included in the revised monitoring plan, and the functions of the meters are specified in the revised monitoring plan. The monitoring parameters and electricity calculation method and the CDM monitoring and management manual have been revised accordingly. It is confirmed by checking the Appendix 1 of the PS version 9.0 that change of location of meters in accordance with a power purchase agreement (PPA) does not require prior approval by the Board. The verification team confirm that the actual monitoring activities comply with the revised monitoring plan. This revised PDD and it's validation report are submitted with this verification report. This CAR is closed.	

CAR ID	CAR-3	Section no.	E.6.1	Date : 31/08/2016
Description of CAR				
The data and parameters fixed ex ante or at renewal of crediting period, including CAP _{BL} and A _{BL} shall be included in the section D.1 of the monitoring report.				
Project participant response				Date : 10/10/2016
The data and parameters fixed ex ante or at renewal of crediting period, including CAP _{BL} and A _{BL} have been included in the section D.1 of the monitoring report.				
Documentation provided by project participant				
Revised monitoring report				
DOE assessment				Date : 04/11/2016
The revised monitoring report has been checked and it is confirmed that the data and parameters fixed ex ante or at renewal of crediting period, including CAP _{BL} and A _{BL} have been included in the section D.1 of the monitoring report. This CAR is closed.				

CAR ID	CAR-4	Section no.	E.7	Date : 31/08/2016
Description of CAR				
Calibration information of the electricity meters shall be reported in the monitoring report. Serial numbers of the electricity meters shall be corrected and meter replacement information shall be reported in the monitoring report.				
Project participant response				Date : 10/10/2016
Calibration information, the correct serial numbers and replacement information of the electricity meters have been reported in the monitoring report.				
Documentation provided by project participant				
Revised monitoring report				
DOE assessment				Date : 04/11/2016
The revised monitoring report has been checked and it is confirmed that the calibration information of the electricity meters, serial numbers of the electricity meters and meter replacement information have been included or corrected in the monitoring report, which are found consistent with the evidence /16//18/. This CAR is closed.				

Table 4. FAR from this verification

FAR ID	N/A	Section No.	N/A	Date : N/A
Description of FAR				
N/A				
Project participant response				Date : N/A
N/A				
Documentation provided by project participant				

N/A	
DOE assessment	Date : N/A
N/A	

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	23 March 2015	Initial publication.
Decision	Class:	Regulatory
Document	Type:	Form
Business	Function:	Issuance
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