




# 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

<b>Title of the project activity</b>	Pasak Jolasid Hydropower Project
<b>Reference number of the project activity</b>	9555
<b>Version number of the verification and certification report</b>	03
<b>Completion date of the verification and certification report</b>	18/04/2017
<b>Monitoring period number and duration of this monitoring period</b>	First monitoring period 01/07/2014-31/12/2014
<b>Version number of monitoring report to which this report applies</b>	06
<b>Crediting period of the project activity corresponding to this monitoring period</b>	Type: Seven year renewable crediting period Start date: 01/07/2014 Length: 7 years 00 months
<b>Project participant(s)</b>	Electricity Generating Authority of Thailand
<b>Host Party</b>	Thailand
<b>Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)</b>	Sectoral Scope 1 : Energy Industries (renewable sources / non – renewable resources) Methodology :AMS-I.D. ver.17: Grid connected renewable electricity generation Standardized baseline : N/A
<b>Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in the registered PDD</b>	18,392 tCO <sub>2</sub> e
<b>Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period</b>	1,755 tCO <sub>2</sub> e
<b>Name of DOE</b>	Bureau Veritas Certification Holding (BVCH) SAS
<b>Name, position and signature of the approver of the verification and certification report</b>	 Ms. Sapana Pednekar , Global Quality Manager- Climate Change Operations

**SECTION A. Executive summary**

>> Bureau Veritas Certification has conducted the 1st periodic verification of Pasak Jolasid Hydropower Project, CDM Registration Reference Number 9555, owned by Electricity Generating Authority of Thailand, which is located in Phatthananihkom District, Lopburi Province, Thailand, and applying the methodology AMS-I.D. ver. 17, on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

Pasak Jolasid Hydropower Project is a small-scale greenfield run-of-the-river hydroelectric power plant with an installed capacity of 6.465 MW at Pasak Jolasid irrigation dam. The project is implemented on the left bank of the existing Pasak Jolasid irrigation dam by using the by-pass water flow to generate the electricity which later sold to Provincial Electricity Authority (PEA).

The proposed project includes installation of generator of 6.465 MW and a 6.7 MW turbine to generate 6.465 MW of electricity to export from the Powerhouse to existing PEA transmission line. All the net generated electricity will be exported to the PEA. Since the project activity generates electricity by using renewable hydro resources with the total capacity of 6.465 MW, the project activity is fall into type I (Renewable energy project) and small scale project (the installed capacity <15 MW).

The verification scope is defined as an independent and objective review and ex-post determination of the monitored GHG emission reductions, and consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in approved/submitted revised project design documents. Installed equipments being essential for generating emission reduction run reliably and are calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reductions are calculated without material misstatements, and the emission reductions verified totalize 1,755 tons of CO<sub>2</sub>e for the monitoring period.

Our opinion relates to the projects' GHG emissions and resulting GHG emission reductions reported and related to the valid and registered project baseline, approved/submitted revised monitoring plan and its associated documents.

Reporting period:	01/07/2014 - 31/12/2014 (first and last day included)
Baseline emissions:	1,755 t CO <sub>2</sub> equivalents.
Project emissions:	0 t CO <sub>2</sub> equivalents.
Leakage emissions:	0 t CO <sub>2</sub> equivalents.
Emission Reductions:	1,755 t CO <sub>2</sub> equivalents.

**SECTION B. Verification team, technical reviewer and approver****B.1. Verification 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 review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Charnyapornpong	Natchawat	Bureau Veritas	x	x	x	x

**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	Sripraparkorn	Chumpol	Bureau Veritas Certification
2.	Approver	IR	Pednekar	Sapana	Bureau Veritas Certification Holding (SAS)

**SECTION C. Application of materiality****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.	Risk of human error in transferring monitoring data from monthly report to calculation spreadsheet. This including transferring of data for these parameter <ul style="list-style-type: none"> <li><math>EG_{\text{export},y}</math>,</li> <li><math>EG_{\text{import},y}</math></li> </ul>	Low	Based on MR version 1.0, there are only 2 main parameters. However, the data transferred generally done on manual process, there is possibility that staff and/or consultant may mistakenly transfer wrong figures to calculation spreadsheet.	Check evidences of activity data and crosschecking evidence in calculation spreadsheet against monthly report and reading export meter report/invoices. The sampling plan will be randomly conducted data sampling at square root N of total number of data as described in section C.2 below.
2.	Human error in providing incorrect calculation formulae in calculation spreadsheet	Low	The calculation spreadsheet is simple formulation with only 2 monitored parameters which monitoring equipment was used.	All formulae in ER calculation spreadsheet will be checked.
3.	Error due to delay of calibration on monitoring equipment	Low	Based on MR version 1.0, there are one main electricity meter and one backup meter. Moreover, detail of calibration for each meter seems to be in line with the frequency mentioned registered PDD	Even though the risk was determined as low level, verification plan aimed to check all of the relevant calibration record covering the whole monitoring period according to VVS version 09.0.

**C.2. Consideration of materiality in conducting the verification**

>> This project activity is small-scale CDM project activities achieving total emission reductions of <30,000 tons of CO<sub>2</sub>e per year; as such, a 5 per cent materiality threshold is applied.

During onsite inspection 28/02/2017, verification team had cross-checked data provided in ER calculation against primary data sources (e.g. internal log book, invoice, reading export meter report, monthly report, etc.). The actual sampling plan done during onsite inspection according to the sampling plan considered its level materiality was shown in below table;

Parameter	Monitoring frequency	Sampling Plan (at least $\sqrt{n}$ of total data)	Consideration of 5% Materiality Threshold (among total ER)	Actual Sampling Plan/ or Adjusted sampling plan
EG <sub>import,y</sub>	Monthly recording	Random 4 months	<b>NO</b>	Verifier was able to verify all 12 months <u>data</u> and no any inconsistency found.
EG <sub>export,y</sub>	Monthly recording	Random 4 months	<b>NO</b>	Verifier was able to verify all 12 months <u>data</u> and no any inconsistency found.

100 per cent of the data and information was checked from log book, monthly report, and cross-checked from invoices. It is observed that the values used in ER calculation were found to be consistent with the evidences.

**SECTION D. Means of verification****D.1. Desk review**

>> The assessment of the project documentation provided by the project participant is based upon both quantitative and qualitative information on emission reductions. Quantitative information comprises the reported numbers in the monitoring report (MR) version 06 dated 18/04/2017 /01/ and emission reduction calculation spreadsheet version 03 dated 28/01/2017 /02/. Qualitative information comprises information on internal management controls, calculation procedures, and procedures for transfer of data, frequency of emissions reports, and review and internal audit of calculations.

The monitoring report version 01 /03/ submitted by the project participant was also web hosted on the UNFCCC-CDM web site on 26/08/2015 and thus, was available in the public domain.

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

- The registered PDD and the monitoring plan, /04/;
- The validation report /05/
- The applied monitoring methodology /06/;
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board ;
- Revised PDD version 09 dated 09/03/2017 /07/
- Other information and references relevant to the project activity's resulting emission reductions (e.g. IPCC reports, laboratory analysis or national regulations).

During this step, 6 CARs and 5 CLs were raised to PP (See appendix 4 below).

**D.2. On-site inspection**

Duration of on-site inspection: 28/02/2017				
No.	Activity performed on-site	Site location	Date	Team member
1.	Inspection of Turbine	Lopburi	28/02/2017	Natchawat
2.	Inspection of Generator	Lopburi	28/02/2017	Natchawat
3.	Inspection of PEA meters at the entrance of the plant	Lopburi	28/02/2017	Natchawat
4.	Inspection of two-way electricity meters (main and backup meter) in control room	Lopburi	28/02/2017	Natchawat

During this step, there was no further CAR and CL raised to PP apart from pending CARs/CLs from Desk review (See appendix 4 below).

**D.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Kunawanakit	Waraporn	EGAT	28/02/2017	Project implementation	Natchawat
2.	Phaemane	Nilapha	EGAT	28/02/2017	Project implementation	Natchawat
3.	Suksamran	Worapol	EGAT	28/02/2017	Project implementation	Natchawat
4.	Utthachak	Nutdanai	EGAT	28/02/2017	Project implementation	Natchawat
5.	Sawanmontee	Supakit	EGAT	28/02/2017	Operation, Technical and Management	Natchawat
6.	Sritammaratch	Sarun	AEP (consultant)	28/02/2017	Reporting	Natchawat
7.	Aroontherawong	Chayaphol	AEP (consultant)	28/02/2017	Project implementation	Natchawat
8.	Surat	Benjawan	AEP (consultant)	28/02/2017	Project implementation	Natchawat

**D.4. Sampling approach**

>> Giving that registered PDD didn't specify any sampling approach but all monitoring parameters are subject to be verified by verifier during verification process. In this sense, at stage of onsite inspection (28/02/2017), verification team prepared sampling plan to verify accuracy and consistency of data provided in ER calculation spreadsheet against primary data sources (e.g. internal log book, invoice, monthly report etc.), as per following detail

Parameters	Sampling approach
EG <sub>export,y</sub>	Randomly sampling <u>at least</u> square root of total number (12 months) = 4 months
EG <sub>import,y</sub>	Randomly sampling <u>at least</u> square root of total number (12 months) = 4 months

However, because of number of data and time-spending were suitable for verification team to perform better data sampling, verification team was able to sampling data more than earlier proposed as detail provided in section C.2 above.

**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	-	4	-
Compliance of the project implementation with the registered PDD	-	-	-
Post-registration changes	-	1	-
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	4	-	-
Others (please specify)	-	-	-
<b>Total</b>	<b>5</b>	<b>6</b>	<b>-</b>

## SECTION E. Verification findings

### E.1. Compliance of the monitoring report with the monitoring report form

<b>Means of verification</b>	<p>Verification team conducted document review on these following document to verify whether monitoring report is compliance with monitoring report form</p> <ul style="list-style-type: none"> <li>Monitoring report (MR) version 01, dated 18/08/2015 (published for GSC) /03/ and its later revision</li> <li>Monitoring report form version 05.1 /08/</li> </ul>
<b>Findings</b>	<p>It's found that MR used the CDM-MR-FORM version 05.1 which is the latest available form published on UNFCCC website.</p> <p>However, it's found that there are some information which are missing and/or incomplete compared to the instruction including;</p> <ul style="list-style-type: none"> <li>Reference link provided in Footnote 1</li> <li>Information of relevant date e.g. construction, commissioning, and start of operation</li> <li>Description of the following; <ul style="list-style-type: none"> <li>The events or situations that occurred during the monitoring period that may impact the applicability of the applied methodology and, where applicable, the applied standardized baseline</li> <li>How the issues resulting from these events or situations have been addressed.</li> </ul> </li> <li>Name of contact person in appendix 1</li> </ul> <p>Hence, CAR01, CAR02, CAR03 and CAR06 were raised.</p> <p>Lastly, PP had corrected MR and provided evidence as appropriate, leading to closure of CAR01, CAR02, CAR03, and CAR06 at the end (see detail in Table 3 under appendix 4).</p>
<b>Conclusion</b>	It is confirmation from verification team that monitoring report version 06 dated 18/04/2017 is compliance with relevant form and instruction therein.

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

>> Not applicable. This is the 1<sup>st</sup> verification and there was no FAR raised during validation.

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

<b>Means of verification</b>	<p>Verification team conducted onsite inspection to investigate project implementation on 28/02/2017 at project site location, then compared against detail of project provided in registered PDD /04/ and MR version 01 /03/ and its later version on these following area/system;</p> <ul style="list-style-type: none"> <li>Control room</li> <li>Generator and turbine</li> <li>Main &amp; Backup electricity meters that import electricity and export powers generated (both main &amp; backup meters are two-way meter)</li> </ul>
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<b>Findings</b>	<p>As result of onsite inspection, verification team found these findings;</p> <p><b><u>Power System</u></b>  Combined with physical inspection and power connection system compared against the line diagram of the power connection system /09/ received during onsite inspection, the electricity generated by the Project is delivered to the nearby substation and then delivered to Thailand's National Grid.  With reference to findings in section E.4.6 below, there was changed in specification of generator and turbine. However, verification team reviewed the new specification of generator and turbine from actual name tag at the project site. It is confirmed that the installed capacity still remains the same as per the registered PDD. EGAT started exporting the electricity to the grid on 02/07/2014. It is also confirmed that this project activity has not been implemented as phase. This is in line with the evidence of EGAT's meeting invitation letter submitted to PEA /10/.</p> <p><b><u>Management and Operation</u></b>  The PP has operated the Project as per the registered PDD. The monitoring organization has been set up and all monitoring staffs have been trained. Meter reading records of all the meters are based on continuously measurement and monthly recorded by the PP. With reference to data logger, internal data log sheet, and invoice verified during onsite inspection, there was no major overhaul from during this monitoring period, it's confirmed that the electricity exported from PPs to the Thailand national grid.  With reference to Permanent changes from registered monitoring plan reported, it is observed that there are changed in record frequency and meter specification of parameter <math>EG_{import,y}</math> and <math>EG_{export,y}</math> from every 8 hours to monthly. However, verification team confirmed that the new record frequency is still in line with the AMS-I.D. ver.17 which required monthly record. Whereas, the new two-way electricity meter installed were changed from Type code: ZMD 402 CT44 - LANDIS + GYR stated in registered PDD to EDM1 (Mk6E). Verification team found that this meter was changed based on the requirement in Power purchase agreement (/11/) which require minimum accuracy level at <math>\pm 0.2\%</math> and accepted by both seller (EGAT) and buyer (PEA). Furthermore, the accuracy class for the actual installed meters still remains at class 0.2s the same accuracy class with the model ZMD 402 CT44 - LANDIS + GYR /12/ stated in registered PDD. The meter EDM1 (Mk6E) /13/ still is continuous monitoring and at least hourly measurement. This is in line with section 5(g) and 5 (b) of Appendix 1 under PS version 09.0 /25/. Hence, this change does not require prior approval by the Executive Board of the clean development mechanism.</p> <p><b><u>Data and variable that is different from stated in registered PDD</u></b>  Combined with document review upon current monitoring report and physical onsite inspection at the site, verification team found no any deviation from registered PDD and final MR that may cause an increase in estimated emission reduction in the future monitoring period.</p> <p><b><u>Any increase the estimates of GHG emission reduction</u></b>  Not Applicable. Based on above findings and ER claimed in the final MR, it is found that the actual ER achieved in this monitoring period is less than estimation in registered PDD.</p>
<b>Conclusion</b>	<p>Corresponding to the paragraph 385 of VVS version 09.0 /24/, Bureau Veritas Certification can confirm that:</p> <ul style="list-style-type: none"> <li>- The implementation of the Project is consistent with the registered PDD.</li> <li>- The Project is operated as per the registered PDD by the PP since from 02/07/2014.</li> <li>- There is no data and variable provided in this MR that is different from that stated in the registered PDD and has caused an increase in estimated emission reduction in the future monitoring period</li> <li>- The project activity has been implemented and operated in accordance with the approved revised PDD /07/;</li> <li>- The monitoring plan complies with the monitoring methodology and the actual monitoring complies with the monitoring plan, including compliance with any guidance provided by the Board regarding deviations from the provisions of a</li> </ul>

	registered plan and/or methodology;
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	- The data and calculation of GHG emission reductions have been assessed to correctly support the emission reductions being claimed.
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**E.4. Post-registration changes****E.4.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline**

>> Not Applicable. It is confirmation from verification team based on objective evidences found onsite and fact discovered from document review that there is no temporary deviation from registered monitoring, monitoring methodology or standardized baseline.

**E.4.2. Corrections**

>> Not Applicable. There are no corrections to a registered project activity.

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

>> With reference to revised MR version 02 dated on 14/01/2016, verification team found that there was change to the start date of crediting period which was not mentioned in MR version 01 dated on 18/08/2015. Verification team reviewed para 10 and 11 of AMS-I.D version 17 and CERs calculation during verification process, it is confirmed that the change to the start date of the crediting period does not result in a less conservative baseline.

The change to start date of crediting period from 01/01/2014 was postponed by 6 months to 01/07/2014. This date was not prior to the date of registration on 01/02/2013. This is found to be in accordance with para 279 (b) of PS version 09.0 /25/. This type of change does not require requesting for prior approval by the board. Moreover, PP had shown the email evidence of notification to the secretariat on 23 November 2015 and confirmation of receipt by CDM registration on 26 November 2015 /14/. This is in line with the procedure under para 149 of PCP version 09.0. Hence, this is accepted. The start date of crediting period at 01/07/2014 was used until revised MR version 06 dated 18/04/2017.

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

>> Not Applicable. There is no inclusion of monitoring plan to a registered project activity.

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

>> Based on desk reviewed, there are permanent changes from registered monitoring plan as follows;

**EG<sub>export,y</sub> (B.7.1)**

Data	Registered monitoring plan	Permanent changed from registered monitoring plan
Source of data	Energy meter reading from plant records	Measured value from electricity meter
Measurement methods and procedures	There will be one meter for the generator (Type code: ZMD 402 CT44 - LANDIS + GYR) with Automated meter reading installed inside EGAT's control room. The meter is two-way meter through which export and import data will be continuously monitored. These data will be printed and recorded on a monthly basis. Additionally, one back up meter will also be installed for the generator.  Moreover, a logbook will be maintained	Measured continuously by using electricity meter (accuracy class 0.2). There is one main electricity meter and one back up electricity meter installed inside EGAT's control room. Consolidated reading is recorded in monthly basis.



	on site to record hourly readings from the energy meter. The readings will be taken by the shift supervisor. This hourly data will be signed off at the end of every shift by the engineer in charge of the shift and again at the end of each day by the power plant manager.	
QA/QC procedures	Data measured by meters and recorded in logbook will be cross checked by electricity sales receipt. This will act as a check against the electricity export-import meter readings. The energy meter will be calibrated at least once in two year subject to national standards.	The reading data from the electricity meter is recorded in the monthly report and it will be cross checked against the reading export meter report. The reading export meter report is an official document to confirm the quantity of power supplied as indicated in the PPA. In case of main meter failure, the data from back up meter will be applied in such period. The energy meter will be calibrated at least once in two years subject to national standards.

**Verification opinion:*****- Source of data:***

There is no significant change and this is similarly the same. Hence, this is accepted.

***- Measurement methods and procedures:***

PP had provided the evidence to confirm that the changes of monitoring equipment were done according to the Power Purchase Agreement (PPA) /11/ with Provincial Electricity Authority (PEA) which requires the minimum requirement accuracy level at  $\pm 0.2\%$ . Validation team also found that PPA was revised on 30/07/2013. PPA reviewed under validation stage was dated on 22/12/2005 /15/ with the reason to update information to be consistent with current situation. However, the requirement on accuracy level remains unchanged. It is found that the accuracy class of meter (Type code: ZMD 402 CT44 - LANDIS + GYR /12/) indicated in registered PDD are the same with requirement on PPA and also the same with the actual meter installed EDMI Mk6E /13/ at class 0.2S. Hence, this change fell under section 5(b) of appendix 1 of Project Standard version 09.0 which do not require prior approval by the Executive Board.

With reference to recording frequency, it was changed from hourly to monthly. Verification team found that this is still within applied methodology AMS-I.D. ver.17 which required recording on monthly basis. Hence, this change fell under section 5(g) of appendix 1 of Project Standard version 09.0 which do not require prior approval by the Executive Board.

***- QA/QC procedures:***

As both EGAT and PEA are state-owned, therefore the quantity of power supplied from EGAT to PEA is summarized and charged to PEA in overall of all power plants not only this project but all related plant between EGAT and PEA. Therefore the amount of electricity supplied to the grid for individual power plant or this project activity is not specifically provided in the receipt/tax invoice. During the verification process, verification team had reviewed the receipt/tax invoice raised by EGAT on PEA. It is confirmed that the information provided in the evidence is consistent with the justification from PP that the amount of electricity supplied to the grid from this project activity is not specifically provided. However, it is found that parameter  $EG_{\text{export},y}$  which referred from monthly report (internal document) had still been cross-checked with the reference of the receipt/tax invoice called 'reading export meter report'. Validation team reviewed the evidence 'reading export meter report' and found that this is official document according to section 8 of PPA dated on 30/07/2013. The reading export meter report was used for confirmation on the quantity of power supplied to PEA on monthly basis at 12.00 A.M. in the end of each month. This document was verified and signed by both EGAT officer and PEA officer. Both parties would have the copy of this document, and later it was used as one of the reference with receipt/tax invoice by both EGAT and PEA. Validation team found that there is no significant change on cross-checking procedure and this is similarly the same process with registered PDD. Hence, this is accepted.

**EG<sub>import,y</sub> (B.7.1)**

Data	Registered monitoring plan	Permanent changed from registered monitoring plan
Source of data	Energy meter reading from plant records	Measured value from electricity meter
Measurement methods and procedures	<p>There will be one meter for the generator (Type code: ZMD 402 CT44 - LANDIS + GYR) with Automated meter reading installed inside EGAT's control room. The meter is two-way meter through which export and import data will be continuously monitored. These data will be printed and recorded on a monthly basis. Additionally, one back up meter will also be installed for the generator.</p> <p>Moreover, a logbook will be maintained on site to record hourly readings from the energy meter. The readings will be taken by the shift supervisor. This hourly data will be signed off at the end of every shift by the engineer in charge of the shift and again at the end of each day by the power plant manager.</p>	Measured continuously by using electricity meter (accuracy class 0.2). There is one main electricity meter and one back up electricity meter installed inside EGAT's control room. Consolidated reading is recorded in monthly basis.
QA/QC procedures	<p>Data measured by meters and recorded in logbook will be cross checked against electricity invoice sent by PEA for electricity import. The energy meter will be calibrated at least once in two years subject to national standards.</p>	<p>The reading data from the electricity meter is recorded in the monthly report and it will be cross checked against electricity invoice sent by PEA for electricity import.</p> <p>In case of main meter failure, the data from back up meter will be applied in such period.</p> <p>The energy meter will be calibrated at least once in two years subject to national standards.</p>

**Verification opinion:****- Source of data:**

There is no significant change and this is similarly the same. Hence, this is accepted.

**- Measurement methods and procedures:**

Same with findings for EG<sub>export,y</sub> above.

**- QA/QC procedures:**

There is no significant change and this is similarly the same. Hence, this is accepted.

**EG<sub>BL,y</sub> (B.7.1)**

Data	Registered monitoring plan	Permanent changed from registered monitoring plan
Measurement methods and procedures	<p><b>EG<sub>BL,y</sub></b> will be calculated by taking readings from <b>both</b> meter installed in the Control room.</p> <p>EG<sub>BL,y</sub> is calculated as (EG<sub>export,y</sub> – EG<sub>import,y</sub>).</p> <p>EG<sub>export,y</sub> and EG<sub>import,y</sub> will be monitored continuously by the meter. This reading (export-import) will act as the basis for calculation of emission reductions.</p>	<p><b>EG<sub>BL,y</sub></b> will be calculated by taking readings from <b>the</b> meter installed in the Control room.</p> <p>EG<sub>BL,y</sub> is calculated as (EG<sub>export,y</sub> – EG<sub>import,y</sub>).</p> <p>EG<sub>export,y</sub> and EG<sub>import,y</sub> will be monitored continuously by the meter. This reading (export-import) will act as the basis for calculation of emission reductions.</p>
QA/QC procedures	This can be cross checked against the electricity invoices. The energy meter	The meter will be calibrated as described in parameter EG <sub>export,y</sub> and EG <sub>import,y</sub>

	will be calibrated at least once in two years subject to national standards.	
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**Verification opinion:***- Measurement methods and procedures:*

There is no significant change and this is similarly the same. There are 2 meters in control room; main meter and backup meter. Both meters are two-way meter and main meter was used for monitoring of  $EG_{\text{export},y}$  and  $EG_{\text{import},y}$  according to registered PDD. This is confirmed during onsite inspection on 28/02/2017. Hence, this is accepted.

*- QA/QC procedures:*

With reference to methodology AMS-I.D. ver. 17,  $EG_{BL,y}$  is calculated parameter between  $EG_{\text{import},y}$  and  $EG_{\text{export},y}$ . Furthermore, the detail of cross-checking and meter calibration had already been provided in parameter  $EG_{\text{import},y}$  and  $EG_{\text{export},y}$ . Hence, this is accepted.

**Monitoring Procedure**

Data	Registered monitoring plan	Permanent changed from registered monitoring plan
<b>Monitoring Procedure (B.7.2)</b>	There will be three 8 hour shifts and the readings from energy meters will be taken on an hourly basis by the shift supervisor and recorded in logbooks. This hourly data will be signed off at the end of every shift by the engineer in charge of the shift and again at the end of each day by the power plant manager. The power plant manager will analyze the data every month and report to the head office. The data will be archived electronically every month and invoices of electricity sales will be maintained.	EGAT is well aware of the importance of having a good operational and management team in order to execute a well-defined monitoring plan for the project activity. So, it has an operational and management structure created exclusively for monitoring data. The responsibilities of data monitoring, archiving and analyzing will fall on different members of the monitoring team. This team will be composed of head office, power plant manager and shift supervisor. The shift supervisor will record the monitoring data. The power plant manager will cross-check the monitoring data and system to be properly functional and the head office will analyze the power plant performance through the monitoring data.

**Verification opinion:**

Based on monthly report received, it is confirmed that the recording frequency which was changed from daily to monthly. Verification team found that this is still within applied methodology AMS-I.D. ver. 17 which required recording on monthly basis. Hence, this change fell under section 5(g) of appendix 1 of Project Standard version 09.0 which do not require prior approval by the Executive Board.

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

>> There are changes in actual turbine specification observed as follows;

**Turbine specification**

<b>Turbine</b>	<b>Registered PDD</b>	<b>Revised PDD and MR</b>
Type	GZJG502-WZ-275	GZJG502-WZ-275
Rated Power	6.7 MW	6.7 MW
Rated Head	13.5 m	13.5 m
Rated Flow	55 m <sup>3</sup> /s	55 m <sup>3</sup> /s
Rated Speed	187.5 r/min	187.5 r/min
<b>Runaway Speed</b>	<b>536 r/min</b>	<b>534 r/min</b>
Layout Type	Horizontal Axis (S- Type)	Horizontal Axis (S- Type)
<b>Manufacturer</b>	<b>Not indicated</b>	<b>LingLing Heng Yuan Generating Equipment Co., Ltd.</b>

**Generator specification**

<b>Generator</b>	<b>Registered PDD</b>	<b>Revised PDD and MR</b>
Type	SFW6465-32/3450	SFW6465-32/3450
<b>Rated Capacity</b>	<b>7,265.9 kVA</b>	<b>7,606 kVA</b>
Rated Power	6,465 kW	6,465 kW
Rated Voltage	6,600V	6,600V
<b>Rated Current</b>	<b>799 A</b>	<b>665.34 A</b>
Rated Frequency	50Hz	50Hz
<b>Manufacturer</b>	<b>Not indicated</b>	<b>LingLing Heng Yuan Generating Equipment Co., Ltd.</b>

With reference to the new generator and turbine's specification received and actual name plate observed during on-site inspection on 28/02/2017, it is confirmed that the only change was on the value of 'Runaway speed' of turbine and 'Rated capacity' & 'Rated current' of generator. There is no change on the installed capacity of the generator and turbine which was calculated based on rated power of generator. This means that there is no changed in the scale and applicability and application of the applied methodology AMS-I.D. ver.17. Verification team also reviewed IRR calculation /16/ with the EPC contract (16 Dec 2008) /17/. It is found that the new generator and turbine cost are the same with the data used in IRR calculation during validation process. Moreover, it is confirmed by PP that there was no changed in contract price. Hence, it is confirmed that this change do not affect to the additionality of the project activity and the project activity still remains additional. With reference to above findings, it is confirmed that this actual changes to the project design of a registered CDM project activity do not adversely impact any of the following:

- (a) The applicability and application of the applied methodology and, where applicable, the applied standardized baseline under which the project activity has been registered;
- (b) The additionality of the project activity;
- (c) The scale of the project activity.

With reference to findings above, this change fell under section 6 of appendix 1 of Project Standard version 09.0 which do not require prior approval by the Executive Board.

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

>> Not applicable. This project is not afforestation and reforestation project activities.

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

<b>Means of verification</b>	Verification team conducted document review on these following documents to verify the compliance of monitoring plan indicated in MR version 01 (first GSC) /03/ (and its later revision) as per following detail. <ul style="list-style-type: none"> <li>• MR version 06 dated 18/04/2017 (final approval) /01/</li> <li>• Registered PDD and its defined monitoring plan /04/</li> <li>• AMS-I.D. ver. 17 /06/</li> </ul>
<b>Findings</b>	With reference to findings in section E.4.6 above, verification team found that all monitoring parameters defined in MR, which are shown below, are still in compliance with applied methodology AMS-I.D. ver. 17,

	<ul style="list-style-type: none"> <li>• <math>EG_{export,y}</math></li> <li>• <math>EG_{import,y}</math></li> </ul> <p>For emission factor of the electricity grid (<math>EF_{CO_2,y}</math>), this parameter is defined in applied methodology to be monitored but PP declared in registered PDD to not monitor it each monitoring period. In response to this, verification had review validation report /05/ and then agreed with previous validation team that PP had correctly chose ex ante option in step 3 and option (1) in step 5 (please refer to Tool to calculate the emission factor for an electricity system), therefore PP is not required to monitored and updated this grid emission factor every year.</p>
<b>Conclusion</b>	Corresponding to the paragraph 388 of VVS version 09.0 /24/, Bureau Veritas Certification can confirm that the monitoring plan is in accordance with the approved methodology including applicable tool(s) applied by the Project.

## 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

<b>Means of verification</b>	<p>Verification team conducted document review on these following documents to ensure compliance of monitoring activities with registered monitoring plan as per following detail.</p> <ul style="list-style-type: none"> <li>• MR version 01 dated 18/08/2015 (first GSC) /03/, later revisions during course of verification, and final approval MR version 06 dated 18/04/2017 /01/</li> <li>• ER Calculation Spreadsheet version 03 dated 28/01/2017 /02/</li> <li>• Registered PDD and monitoring plan /04/</li> <li>• ER Calculation Spreadsheet version 01 dated 03/07/2015 /18/</li> </ul>								
<b>Findings</b>	<p>At stage of document review, verification team found that value applied in ER calculation spreadsheet, which are fixed ex ante, had been correctly applied.</p> <p>These are in line with the figures earlier defined in registered PDD.</p> <table border="1"> <thead> <tr> <th>Parameter</th><th>Verification finding</th></tr> </thead> <tbody> <tr> <td><math>EF_{grid,OM}</math></td><td>Figure of "0.543" is correctly applied</td></tr> <tr> <td><math>EF_{grid,BM}</math></td><td>Figure of "0.569" is correctly applied</td></tr> <tr> <td><math>EF_{grid,CM}</math></td><td>Figure of "0.556" is correctly applied</td></tr> </tbody> </table> <p>However, it was observed that description and value of parameter <math>EF_{grid,CM}</math> under MR version 01 was not correct. Hence, CAR05 was raised. Later, PP had revised the description and value of parameter <math>EF_{grid,CM}</math> under MR version 02. Verification team revised the revised MR and had no further issue. Hence, CAR05 was closed.</p>	Parameter	Verification finding	$EF_{grid,OM}$	Figure of "0.543" is correctly applied	$EF_{grid,BM}$	Figure of "0.569" is correctly applied	$EF_{grid,CM}$	Figure of "0.556" is correctly applied
Parameter	Verification finding								
$EF_{grid,OM}$	Figure of "0.543" is correctly applied								
$EF_{grid,BM}$	Figure of "0.569" is correctly applied								
$EF_{grid,CM}$	Figure of "0.556" is correctly applied								
<b>Conclusion</b>	It's confirmation from verification team that parameter fixed ex ante are correctly applied in ER calculation spreadsheet which are in line with figures earlier defined in registered PDD								

### E.6.2. Data and parameters monitored

Means of verification	<p>Verification team conducted document review on these following documents;</p> <ul style="list-style-type: none"><li>• MR version 01 dated 18/08/2015 (first GSC) /03/, later revisions during course of verification, and final approval MR version 06 dated 18/04/2017 /01/</li><li>• ER Calculation Spreadsheet version 03 dated 28/01/2017 /02/</li><li>• Registered PDD and monitoring plan /04/</li><li>• Revised PDD version 09 dated 09/03/2017 /07/</li><li>• ER Calculation Spreadsheet version 01 dated 03/07/2015 /18/</li></ul> <p>In addition, verification team conducted onsite inspection (28/02/2017) at location of project site in order to verify data in ER calculation spreadsheet against primary data sources stored at site (monthly report, plant log sheet, reading export meter report, and invoice) and also their management and operation system. The verification finding can be demonstrated as per following detail.</p>						
Findings	<p>Table below provides detail on verification finding in each monitoring parameters.</p> <table><tr><th>Parameters</th><th>Evidence Checked</th><th>Verification Findings</th></tr><tr><td>EG<sub>export,y</sub></td><td><ul style="list-style-type: none"><li>• Monthly reports for Jul-Dec 2014 /19/</li><li>• Reading export meter</li></ul></td><td>The data found to be consistent with Monthly reports for all 6 months. Furthermore, verification</td></tr></table>	Parameters	Evidence Checked	Verification Findings	EG <sub>export,y</sub>	<ul style="list-style-type: none"><li>• Monthly reports for Jul-Dec 2014 /19/</li><li>• Reading export meter</li></ul>	The data found to be consistent with Monthly reports for all 6 months. Furthermore, verification
Parameters	Evidence Checked	Verification Findings					
EG <sub>export,y</sub>	<ul style="list-style-type: none"><li>• Monthly reports for Jul-Dec 2014 /19/</li><li>• Reading export meter</li></ul>	The data found to be consistent with Monthly reports for all 6 months. Furthermore, verification					

		<p>report (countersigned by both EGAT and PEA) for Jul-Dec 2014 /20/</p>	<p>team also reviewed the cross-check evidence under AMS-I.D. ver.17 and the monitoring plan 'Reading export meter report' for the period of Jul-Dec 2014, it is confirmed that there is no material discrepancy between the data on monthly report, reading export meter report, and ER calculation spreadsheet in this verification period.</p> <p>However, it was observed that the amount of electricity export was not consistence in each month and no electricity exported in September and October 2014. Hence, CL02 was raised for clarification. In response to this, PP had provided the justification with monthly report which showed the maintenance during September and October 2014. This is accepted and CL02 was closed.</p> <p>According to para 357 (c) of VVS version 09.0, verification team tried to cross-check the data with other sources than those used in the monitoring report by checking with the publicly available data from the following organization:</p> <ul style="list-style-type: none"> <li>- Energy Regulatory Commission (ERC).</li> <li>- Energy Policy &amp; Planning Office, Thailand (EPPO)</li> <li>- Ministry of Energy</li> </ul> <p>However, there was no available data which are in the same monitoring period or specific to this project activity to be reviewed.</p>
	EG <sub>import,y</sub>	<ul style="list-style-type: none"> <li>• Monthly reports for Jul-Dec 2014 /19/</li> <li>• Electricity Invoices for Jul-Dec 2014 (cross-check) /21/</li> </ul>	<p>The data found to be consistent with the evidences for all 6 months.</p>

	$EG_{BL,y}$ (Calculated value from $EG_{export,y}$ and $EG_{import,y}$ )	ER Calculation spreadsheet	The formula used in ER calculation spread sheet is correct. The value from $EG_{export,y}$ and $EG_{import,y}$ is correctly applied for $EG_{BL,y}$ calculation.
	<p><b><u>Management and operation system</u></b></p> <p>With reference to interview session with personnel involved in the project (see name list in section D.3 above), verification team found that operation and management structure had been created extensively for monitoring of relevant parameters. The responsibility of data monitoring, archiving and analysing had been subjected to monitoring team, which is comprising of these following staffs;</p> <ul style="list-style-type: none"> <li>- Power Plant manager</li> <li>- Shift Supervisor</li> </ul> <p>This structure is in line with their description in current MR.</p>		
<b>Conclusion</b>	<p>Corresponding to the paragraph 390 of VVS version 09.0 /24/, Bureau Veritas Certification can confirm that:</p> <p>(a) The registered monitoring plan has been properly implemented and followed by the project participants or the coordinating/managing entity;</p> <p>(b) All parameters stated in the registered monitoring plan and relevant Board decisions 41 have been monitored and updated as applicable, including:</p> <ul style="list-style-type: none"> <li>(i) Project emission parameters;</li> <li>(ii) Baseline emission parameters;</li> <li>(iii) Leakage parameters;</li> <li>(iv) Management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the registered monitoring plan;</li> </ul> <p>(c) The equipment used for monitoring is in accordance with section 11.4.5 of VVS version 09.0 and is controlled and calibrated in accordance with the registered monitoring plan, the applied methodology, the applied standardized baseline, Board guidance, local/national standards, or as per the manufacturer's specification;</p> <p>(d) Monitoring results are consistently recorded as per approved frequency;</p> <p>(e) Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.</p>		

### E.6.3. Implementation of sampling plan

<b>Means of verification</b>	Not Applicable. Verification team conducted document review on registered PDD /04/ in order to verify on how sampling plan had been originally proposed in their registered PDD
<b>Findings</b>	Not Applicable. It's found in registered PDD that there is no sampling plan to be conducted but all monitoring parameter are subjected to be verified by verifier during verification process.
<b>Conclusion</b>	Not Applicable. Combined with detail provided in registered PDD, it's confirmation from verification team that there is no sampling plan originally proposed by Project Participant in registered PDD, but all monitored data are subjected to be verified during verification process.

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

<b>Means of verification</b>	Verification team conducted document review and found that monitoring instrument, electricity meters, for both $EG_{import,y}$ and $EG_{export,y}$ are subjected to be calibrated as per description in the monitoring plan. Hence, verification team request for the certificate of calibration and cross-checked their serial number with monitoring equipment during onsite inspection (28/02/2017).
<b>Findings</b>	With reference to MR version 01 /03/, exporting meter was referred to PEA meter installed at the front gate of the project activity. Hence, CL01 was raised. However, with reference to PP's response, the exporting meter referred was changed back to two-way electricity meters in control room (Main meter no. 212500666 & Back up meter no.210278028) in line with the registered PDD. Based on interview result and internal log sheet, verification team confirmed that the meter in control room were

	<p>used during this monitoring period and the calibration record for these meter were provided as follows;</p> <p>Table 1 below provides detail of verification finding for each monitoring equipment. Table 1 : The calibration records of the meters</p> <table><tr><th>Meter ID</th><th>Serial number</th><th>Accuracy</th><th>Calibration date</th><th>Validity in this monitoring period</th><th>Verification Opinion</th></tr><tr><td>1) Electricity Meter (Main)</td><td>212500666</td><td>0.2S</td><td>17/06/2014 /22/</td><td>Yes (once in 2 year)</td><td>Verification team reviewed calibration record. This is accepted.</td></tr><tr><td>2) Electricity Meter (Backup)</td><td>210278028</td><td>0.2S</td><td>17/06/2014 /23/</td><td>Yes (once in 2 year)</td><td>Verification team reviewed calibration record. This is accepted.</td></tr></table> <p>With reference to findings above, there is no calibration delay and the calculation of adjusted value had been removed from calculation. Hence, CL01 was closed.</p>	Meter ID	Serial number	Accuracy	Calibration date	Validity in this monitoring period	Verification Opinion	1) Electricity Meter (Main)	212500666	0.2S	17/06/2014 /22/	Yes (once in 2 year)	Verification team reviewed calibration record. This is accepted.	2) Electricity Meter (Backup)	210278028	0.2S	17/06/2014 /23/	Yes (once in 2 year)	Verification team reviewed calibration record. This is accepted.
Meter ID	Serial number	Accuracy	Calibration date	Validity in this monitoring period	Verification Opinion														
1) Electricity Meter (Main)	212500666	0.2S	17/06/2014 /22/	Yes (once in 2 year)	Verification team reviewed calibration record. This is accepted.														
2) Electricity Meter (Backup)	210278028	0.2S	17/06/2014 /23/	Yes (once in 2 year)	Verification team reviewed calibration record. This is accepted.														
Conclusion	<p>Corresponding to the paragraph 394 of VVS version 09.0 /24/, Bureau Veritas Certification can confirm that monitoring equipment's are well calibrated at the frequencies defined in methodology, and monitoring plan of registered PDD.</p>																		

## 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	Verification team review calculation of baseline emission as per below equation $BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$ Where BE <sub>y</sub> : Baseline emissions in year 'y' (tCO <sub>2</sub> /yr) EG <sub>BL,y</sub> : Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh). The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export (EG <sub>export,y</sub> ) and the import (EG <sub>import,y</sub> ) EF <sub>CO<sub>2</sub>,grid,y</sub> : CO <sub>2</sub> emission factor of the grid in year y (t CO <sub>2</sub> /MWh) estimated using “Tool to calculate emission factor for an electricity systems”.			
Findings	Verification team verified each input data as per following detail.			
	Parameter	Figures applied in ER Calculation spreadsheet	Verification Finding	Opinion
	1) BE <sub>y</sub>	1,755 tCO <sub>2</sub> /yr	Formula embedded in ER calculation had been checked and it's found that the calculation is in line with applied methodology.	OK. Calculation is correct.
	2) EG <sub>export,y</sub>	3,314 MWh/yr	Jul-Dec 2014 data correctly applied in the ER calculation.	OK. Calculation is correct and input values are based on reliable evidences.
	3) EG <sub>import,y</sub>	156 MWh/yr	Jul-Dec 2014 data are correctly applied in the ER calculation.	OK. Calculation is correct and input values are based on



				reliable evidences.
	4) $EG_{BL,y}$	3,158 MWh/yr	Formulae embedded in ER calculation had been checked and it's found that the calculation is in line with applied methodology.	OK. Calculation is correct.
	5) $EF_{CO_2, grid,y}$	0.556 tCO <sub>2</sub> /MWh	The value applied in ER calculation had been cross-checked with "Tool to calculate the emission factor for an electricity system", it's found that option 1 is selected for calculation of 'Build Margin', therefore, the grid EF is fix ex-ante throughout 1 <sup>st</sup> crediting period. It's confirmed that this value is in line with the tool and also compliance with value applied in registered PDD.	OK. Calculation is correct and input values are based on reliable evidences.
<b>Conclusion</b>	<p>Corresponding to the paragraph 403 of VVS version 09.0 /24/, Bureau Veritas Certification can confirm that:</p> <ul style="list-style-type: none"> <li>- Data used for the determination of the emission reductions are available and monitored in accordance with the monitoring plan contained in the registered PDD.</li> <li>- Information and data provided in the monitoring report have been cross-checked with other sources such as invoices, B forms, calibration records, etc.</li> <li>- Appropriate methods and formulae for calculating emission reductions have been followed.</li> <li>- Assumptions, emission factors and default values that were applied in the calculations have been justified.</li> </ul>			

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

<b>Means of verification</b>	Verification team verified calculation and justification of project emission against para 20 and 21 of applied methodology (AMS-I.D. ver. 17).
<b>Findings</b>	<p>With reference to para 20 of applied methodology, for most renewable energy project activities, <math>PE_y = 0</math>. However, for the following categories of project activities, project emissions have to be considered;</p> <ul style="list-style-type: none"> <li>• Emissions related to the operation of geothermal power plants (e.g. non-condensable gases, electricity/fossil fuel consumption);</li> <li>• Emissions from water reservoirs of hydro power plants.</li> </ul> <p>Base on desk review and observation during onsite inspection, this project activity is neither geothermal power plants nor hydro power plants with reservoirs. This hydro power plant is run-of-the-river hydroelectric power plant. There is no reservoir observed. Hence, verification team accepted the figure <math>PE_y = 0</math>.</p> <p>CL03 was raised because both registered PDD and MR did not mentioned about on-site consumption of fossil fuel due to the project activity. With reference to PP justification, there is no on-site consumption of fossil fuel. This is re-confirmed by onsite inspection on 28/02/2017. Hence, this is accepted.</p>
<b>Conclusion</b>	With reference to 28/02/2017, verification team confirmed that project emission is zero (0) for this project activity.

### E.8.3. Calculation of leakage GHG emissions

<b>Means of verification</b>	Verification team reviewed registered PDD against para 22 of applied methodology (AMS-I.D. ver. 17)
<b>Findings</b>	With reference to para 21 of AMS-I.D. ver. 17, verification team raised CL04 to ask for the evidence whether the equipment was transferred or not. Verification team received EPC contract /17/ from PP, it is found that the generator and turbine from installed in this project activity is the new one and were not transferred from another activity. This is in line with registered PDD.
<b>Conclusion</b>	With reference to AMS-I.D. ver. 17, verification team confirmed that leakage emission is not applicable for this project activity.

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

<b>Means of verification</b>	Verification team reviewed ER calculation spreadsheet against calculation of GHG emission reduction defined by applied methodology (AMS-I.D. ver. 17).
<b>Findings</b>	<p>The total emission reductions during the monitoring period from 01/07/2014-31/12/2014 are correctly calculated as:</p> $ER_y = BE_y - PE_y - LE_y$ $ER_y = 1,755 - 0 - 0$ $ER_y = 1,755 \text{ tCO}_2\text{e}$
<b>Conclusion</b>	<p>Corresponding to the paragraph 403 of VVS version 09.0 /24/, Bureau Veritas Certification can confirm that:</p> <ul style="list-style-type: none"> <li>- Data used for the determination of the emission reductions are available and monitored in accordance with the monitoring plan contained in the registered PDD.</li> <li>- Information and data provided in the monitoring report have been cross-checked with other sources such as invoices, B forms, calibration records, etc.</li> <li>- Appropriate methods and formulae for calculating emission reductions have been followed.</li> <li>- Assumptions, emission factors and default values that were applied in the calculations have been justified.</li> </ul>

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

<b>Means of verification</b>	Verification team reviewed ER calculation spreadsheet and monitoring period against registered PDD
<b>Findings</b>	<p>As per description in registered PDD, the annual emission reduction is estimated at 18,392 tCO<sub>2</sub>e per year or equivalent to 9,196 tCO<sub>2</sub>e per 6 months.</p> <p>Verification team reviewed the monthly report and the amount of electricity generation from the project activity. It is confirmed that the emission reductions during the monitoring period from 01/07/2014-31/12/2014 or first 6 months was at 1,755 tCO<sub>2</sub>e per year.</p>
<b>Conclusion</b>	Verification team confirmed that lower GHG emission reduction than registered PDD is reasonable and accepted.

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

<b>Means of verification</b>	Verification team reviewed ER calculation spreadsheet and monitoring period against registered PDD
<b>Findings</b>	<p>According to E.8.5 above, the amount of emission reduction is not higher than what was estimated in registered PDD. With reference to MR version 01 dated 18/08/2015 /03/, verification team raised CL05 because there was conflict in description that the water in Chao Phraya irrigation dam affected to the emission reduction calculation for this project activity which located near Pasak irrigation dam. In response to CL05, PP had corrected the typo from Chao Phraya irrigation dam to Pasak irrigation dam. Verification team revised the correction in revised MR and had no further question on this. Hence, CL05 was closed.</p>
<b>Conclusion</b>	Verification team confirmed that emission reduction in this monitoring period is not exceed level of ER earlier proposed in registered PDD

#### 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

<b>Means of verification</b>	Verification team reviewed ER calculation spreadsheet and monitoring period against registered PDD.
<b>Findings</b>	While the estimated amount of emission reduction from registered PDD was 18,392 tCO <sub>2</sub> e, while the amount of emission reduction in this 1 <sup>st</sup> monitoring period during (01/07/2014-31/12/2014) is 1,755 tCO <sub>2</sub> e
<b>Conclusion</b>	It's confirmed that emission reduction in this monitoring period is correct. The data and calculation of GHG emission reductions have been assessed to correctly support the emission reductions being claimed.

**SECTION F. Internal quality control**

>> The verification report underwent an Internal Technical Review (ITR) before requesting issuance of CERs for the project activity.

The ITR is an independent process performed to examine thoroughly that the process of verification has been carried out in conformance with the requirements of the verification scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the verification report to the reviewer, including any necessary verification documentation. The reviewer reviews the submitted documentation for conformance with the verification scheme. This will be a comprehensive review of all documentation generated during the verification process.

When performing an Internal Technical Review, the reviewer ensures that:

- The verification activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs, CLs and FARs during the verification exercise, review of sample documents.

The reviewer may raise Clarification Requests to the verification team and discusses these matters with Team Leader.

After the agreement of the responses on the Clarification Requests from the verification team as well as the PP(s), the finalized verification report is accepted for further processing such as uploading via the UNFCCC interface.

**SECTION G. Verification opinion**

>> Bureau Veritas Certification has performed the 1st periodic verification of Pasak Jolasid Hydropower Project, CDM Registration Reference Number 9555, which is located in Phatthananikhom District, Lopburi Province, Thailand, and applying the methodology AMS-I.D. ver. 17. The verification was performed based on the requirements set by the CDM and relevant guidance provided by CMP and the CDM Executive Board.

The verification consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of Electricity Generating Authority of Thailand is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions of the project on the basis set out within the monitoring plan contained in the approved/submitted revised PDD. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification has verified the project Monitoring Report version 06 dated 18/04/2017 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as described in the approved/submitted revised project design documents. Installed equipment being essential for generating emission reductions run reliably and are calibrated appropriately. The monitoring system is in place and the Project is generating GHG emission reductions as a CDM project.

Corresponding to the paragraph 403 of VVS version 09.0, Bureau Veritas Certification can confirm that:

- Data used for the determination of the emission reductions are available and monitored in accordance with the monitoring plan contained in the registered PDD.
- Information and data provided in the monitoring report have been cross-checked with other sources such as invoice, plant logbooks, and monthly report.
- Appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed.
- The emission factor that was applied in the calculations had been appropriately justified.

#### SECTION H. Certification statement

>> Bureau Veritas Certification can confirm that the GHG emission reductions are calculated without material misstatements. Our opinion relates to the projects' GHG emissions and resulting GHG emission reductions reported and related to the validated and registered project baseline, approved/submitted revised monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, Bureau Veritas Certification confirms the following statement:

Reporting period:	01/07/2014-31/12/2014
Baseline emissions:	1,755 t CO <sub>2</sub> equivalents
Project emissions:	0 t CO <sub>2</sub> equivalents
Leakage emissions:	0 t CO <sub>2</sub> equivalents
Emission Reductions:	1,755 t CO <sub>2</sub> equivalents



Dr Chumpol SRIPRAPARKORN  
Internal Technical Reviewer  
18/04/2017



Mr Natchawat CHARNYAPORNPONG  
Team Leader  
18/04/2017

## Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
FAR	Forward Action Request
GHG	Green House Gas(es)
MP	Monitoring Plan
MR	Monitoring Report
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VVS	CDM Validation and Verification Standard

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

Mr. Natchawat Charnyapornpong	Bureau Veritas Certification, Thailand	<p><u>Current Position:</u> Team Leader, Climate Change Verifier.</p> <p><u>CDM Technical Area#:</u></p> <ul style="list-style-type: none"> <li>- T.A 1.2 (Energy generation from renewable energy)</li> <li>- T.A. 13.1 (Solid Waste and waste water)</li> <li>- T.A. 13.2 (Manure)</li> <li>- T.A. 15.2 (Agriculture)</li> </ul> <p><u>Education</u></p> <p>He was graduated from M.Sc. Environmental Management, Chulalongkorn University and Bachelor degree in Micro-biology from Chulalongkorn University.</p> <p><u>Related Work Experiences</u></p> <p>He has 5 years experiences in Carbon Business area while he was employed as CDM consultant prior to join Bureau Veritas Thailand. In this present time, he is responsible to CDM business and non-CDM business (i.e., VCS, GS, and Carbon Footprint).</p> <p><b>Remark #</b> Obtained by technical training, education and related work experiences</p>
Dr. Chumpol Sripraparkorn	Bureau Veritas Certification, Thailand	<p><u>Current Position:</u> Technical Reviewer, Climate Change Lead Verifier.</p> <p><u>CDM Technical Area#:</u></p> <ul style="list-style-type: none"> <li>- T.A 1.2 (Energy generation from renewable energy)</li> <li>- T.A. 13.1 (Solid Waste and waste water)</li> </ul> <p><u>Education</u></p> <p>He has PhD education background in Environmental Management (Hazardous Waste Management) Chulalongkorn University, 2009 with core research: Transportation policy, traffic mode, vehicle emission, air quality. His thesis title is Application of The Air Pollution Model (TAPM) for Bangkok air quality management policy with focus on bus route management, traffic management, mass rapid transportation impact, vehicle profile, vehicle emission and its impact on air quality. His master degree in Environmental Science – Chulalongkorn University, 2002 with core research on Urban transportation system, traffic mode, vehicle emission. His thesis title is Application of CALINE4 air quality model for prediction of roadside air quality.</p> <p><u>Related Work Experiences</u></p> <p>He has more than 12-year experiences in environmental business and research area. His work experiences prior to join Bureau Veritas Certification (Thailand) was at Agency for Science, Research and Technology (A*STAR), Singapore also with Environmental Consulting firm (conducting Environmental Impact Study) and CDM Consulting firm. He is now working for Bureau Veritas (Thailand) for 5 years and in charge of CDM service.</p> <p><b>Remark #</b> Obtained by technical training, education and related work experiences</p>

### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	EGAT	Monitoring report version 06 dated 18/04/2017 (final version)	Completion date 18/04/2017	PP
2	EGAT	ER Calculation spreadsheet version 03 dated 28/01/2017	Completion date 28/01/2017	PP
3	EGAT	Monitoring report version 01 dated 18/08/2015 (first published for Global Stakeholder consultation)	Completion date 18/08/2015	PP
4	Agrinergy Pte Ltd.	Registered PDD version 05 dated 29/01/2013	<a href="http://cdm.unfccc.int/Projects/DB/RWTUV1359567174.34/view">http://cdm.unfccc.int/Projects/DB/RWTUV1359567174.34/view</a>	Others
5	Tuv Nord Certification	Validation report	<a href="http://cdm.unfccc.int/Projects/DB/RWTUV1359567174.34/view">http://cdm.unfccc.int/Projects/DB/RWTUV1359567174.34/view</a>	Others
6	UNFCCC CDM	AMS-I.D. ver. 17	<a href="http://cdm.unfccc.int/methodologies/SSCmethodologies/approved">http://cdm.unfccc.int/methodologies/SSCmethodologies/approved</a>	Others
7	EGAT	Revised PDD version 09 dated on 09/03/2017	Completion date 09/03/2017	PP
8	UNFCCC CDM	Monitoring report form version 05.1	<a href="https://cdm.unfccc.int/Reference/PDDs/Forms/index.html">https://cdm.unfccc.int/Reference/PDDs/Forms/index.html</a>	Others
9	EGAT	Line diagram of power connection system	N/A	PP
10	EGAT	EGAT's meeting invitation letter submitted to PEA	Completion date 29/05/2014	PP
11	EGAT and PEA	Power Purchase Agreement Dated 30/07/2013	Completion date 30/07/2013	PP
12	Landis +Gyr Ltd.	Specification of electricity meter model ZMD 402 CT44 – LANDIS + GYR	N/A	PP
13	EDMI	Specification of electricity meter model EDM1 Mk6E	N/A	PP
14	EGAT and UNFCCC	Notification to Secretariat and Confirmation of receiving	N/A	PP
15	EGAT and PEA	Power Purchase Agreement Dated 22/12/2005 (at validation stage)	Completion date 22/12/2005	PP
16	Agrinergy Pte Ltd.	Appendix 4 - 9555 IRR & CER Calculations	<a href="http://cdm.unfccc.int/Projects/DB/RWTUV1359567174.34/view">http://cdm.unfccc.int/Projects/DB/RWTUV1359567174.34/view</a>	Others
17	EGAT and ST power Engineering Corp., Ltd.	EPC contract No. EGAT 45-034655-2-3-6D-EGAT 4/2550-PSHP dated 16 Dec 2008	Completion date 16/12/2008	PP
18	EGAT	ER Calculation spreadsheet dated 03/07/2015	Completion date 03/07/2015	PP
19	EGAT	Monthly report from Jul to Dec 2014	N/A	PP
20	EGAT and PEA	Reading export meter report from Jul to Dec 2014	N/A	PP
21	PEA	Electricity invoice from Jul 2014 to Dec 2014	N/A	PP
22	EGAT	Certificate of Calibration for meter 212500666	Issue date 18/06/2014	PP
23	EGAT	Certificate of Calibration for meter 210278028	Issue date 18/06/2014	PP
24	UNFCCC CDM	VVS version 09.0	<a href="http://cdm.unfccc.int/Reference/Standards/index.html">http://cdm.unfccc.int/Reference/Standards/index.html</a>	Others
25	UNFCCC	PS version 09.0	<a href="http://cdm.unfccc.int/Reference/">http://cdm.unfccc.int/Reference/</a>	Others

	CDM		<a href="#">Standards/index.html</a>	
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## Appendix 4. Clarification requests, corrective action requests and forward action requests

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

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

Table 2. CL from this verification

<b>CL ID</b>	01	<b>Section no.</b>	E.7	<b>Date:</b> 17/09/2015
<b>Description of CL</b>				
<i>Please provide the evidence to confirm as follows</i> <i>- Electricity meter (EDMI GENIUS) SN. 20666198 is belonging to PEA</i> <i>- the statement that "... the meters will be calibrated according to PEA's regulation...."</i>				
<b>Project participant response</b>				<b>Date:</b> 14/01/2016
<i>The two statements mentioned above have been removed which then the energy meter will be calibrated at least once in two years subject to national standards as indicated in the registered PDD</i>				
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> 21/01/2016
- Please clarify why the monitoring equipment proposed for EG <sub>import,y</sub> (SN:20666198) in MR version 01 was revised to 2 meters (1 main and 1 back-up) in MR version 02. - With reference to the change of monitoring equipment between MR version 01 and MR version 02, please clarify which monitoring equipment were actually used to collect the data of EG <sub>import,y</sub> during this monitoring period.  CL01 is pending.				
<b>Project participant response</b>				<b>Date:</b> 08/02/2017
- There are 3 meters to measure the import electricity from the grid which are listed as follows; a. One (1) PEA's meter which is installed outside the plant with accuracy class 0.5S b. Two (2) EGAT's meters (1 Main meter and 1 Backup meter) which are installed inside the plant with accuracy class 0.2S For MR version 1, PEA's meter was used for EG <sub>import,y</sub> (SN:20666198) due to it was thought that the third party meter would be the most reliable meter. However, it was found later that the accuracy class of the meter is reduced from the registered PDD. Therefore, the EGAT's meters have been used for the parameter EG <sub>import,y</sub> .  - This is to confirm that the EGAT's meters (1 Main meter and 1 Backup meter) are used to collect the data of EG <sub>import,y</sub>				
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> 03/06/2017

With reference to on-site inspection on 28/02/2017, verification team confirmed that the actual installed meters are consistent with the PP's justification in the response. All meters had been installed in the same electricity line and all meters were functioned. With reference to the revision in MR version 02, activity data was referred to the monitoring equipment which was located at the EGAT's control room same as registered PDD. PP also provided the evidences of the specification for the main meter and back up meter according to the registered PDD and specification of actual meters installed. It is confirmed that the level of accuracy does not changed and still remained the same at Class 0.2S according to PPA. Verification team cross-checked the imported electricity recording from main meter with the electricity invoices which were based on PEA meter. It is found that the data is materiality the same with no error found.

CL01 is closed.

CL ID	02	Section no.	E.8.1	Date:	17/09/2015
<b>Description of CL</b>					
<i>With reference to ER calculation spreadsheet, please clarify on monitoring data as follows</i> <i>- why there is no electricity exported (<math>EG_{\text{export},y}</math>) to the grid in September and October 2014</i> <i>- why the amount of electricity export (<math>EG_{\text{export},y}</math>) in December 2014 at 2,484.77 MWh is significantly higher than others month which have maximum value on July 2014 at 562.24 MWh</i>					
<b>Project participant response</b>					<b>Date:</b> 14/01/2016
<i>-The power plant is shut downed for maintenance during period of September and October</i> <i>-Due to the period of July- November is in the beginning period of operation, therefore there were some maintenance or fine tuning events of the power plant in those periods which cause of low amount of electricity export. In addition, As per registered PDD, the expected amount of electricity export was 2,900 MWh per month, hence the actual amount of electricity export 2,484.77 MWh in December 2014 is still lower than the expected.</i>					
<b>Documentation provided by project participant</b>					
<b>DOE assessment</b>					<b>Date:</b> 21/01/2016
- Please provide the evidence of the maintenance on September and October 2014. - Verification team reviewed the estimation in registered PDD and agreed with the justification from PP.					
CL02 is pending					
<b>Project participant response</b>					<b>Date:</b> 08/02/2017
<i>- The maintenance details are described in the monthly report which has been submitted as file "Monthly report 2014.pdf"</i>					
<b>Documentation provided by project participant</b>					
Monthly report 2014.pdf					
<b>DOE assessment</b>					<b>Date:</b> 06/03/2017
Verification team reviewed the evidence monthly report on September and October 2014. It is found that the power plant had been under maintenance from 01/09/2014 – 23/11/2014. Verification team accepted the PP's justification and had no further question.					
CL02 is closed.					

CL ID	03	Section no.	E.8.2	Date:	17/09/2015
<b>Description of CL</b>					
<i>With reference to AMS-I.D version 17 and section E.2 of MR, please clarify whether there is on-site consumption of fossil fuels due to the project activity during this monitoring period or not.</i>					
<b>Project participant response</b>					<b>Date:</b> 14/01/2016
<i>There is no on-site consumption of fossil fuel for the project activity</i>					
<b>Documentation provided by project participant</b>					
<b>DOE assessment</b>					<b>Date:</b> 06/03/2017
With reference to on-site inspection on 28/02/2017, there is no on-site consumption of fossil fuel due to the project activity observed. Hence, the justification is accepted.					
CL03 is closed.					

CL ID	04	Section no.	E.8.3	Date:	17/09/2015
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Description of CL	
<i>With reference to AMS-I.D version 17, please submit the evidence to confirm that all energy generating equipments were not transferred as stated in section E.3.</i>	
<b>Project participant response</b>	<b>Date:</b> 14/01/2016
<i>The document to support that the equipments were not transferred as stated in section E.3 has been provided as file "EPC contract Pasak.pdf"</i>	
Documentation provided by project participant	
<i>EPC contract Pasak.pdf</i>	
<b>DOE assessment</b>	<b>Date:</b> 21/01/2016
Verification team accepted the evidence "EPC contract Pasak.pdf" from PP with no further question.	
CL04 is closed.	

CL ID	05	Section no.	E.8.6	Date: 17/09/2015
Description of CL				
<i>Please clarify how the water in Chao Phraya irrigation dam had affected to the emission reduction from the project activity which implemented on the Pasak Jolasid dam.</i>				
Project participant response				Date: 14/01/2016
<i>It is typo error, therefore it has been revised</i>				
Documentation provided by project participant				
DOE assessment				Date: 21/01/2016
Verification team reviewed the revision in section E.6 of revised MR version 02 dated on 14/01/2016. It is confirmed that the information is now corrected.				
This revision is satisfied and CL05 is closed.				

Table 3. CAR from this verification

CAR ID	01	Section no.	E.1	Date: 17/09/2015
Description of CAR				
<i>It is unable to access the reference link provided in Footnote 1 (<a href="http://cdm.unfccc.int/filestorage/V/9/L/V9LRSXKP24Q7YT6HZDUBO3C0ING8AJ.1/EB61_repan17_Revision_AMSI.D_ver17.pdf?t=bzV8bm8wbXI0fDCmODUDX60Ts2GX4YnfQ2YP">http://cdm.unfccc.int/filestorage/V/9/L/V9LRSXKP24Q7YT6HZDUBO3C0ING8AJ.1/EB61_repan17_Revision_AMSI.D_ver17.pdf?t=bzV8bm8wbXI0fDCmODUDX60Ts2GX4YnfQ2YP</a>) to confirm the exact reference of the applied methodology.</i>				
Project participant response				Date: 14/01/2016
<i>The reference link for the footnote 1 has been updated “<a href="http://cdm.unfccc.int/methodologies/SSCmethodologies/approve">http://cdm.unfccc.int/methodologies/SSCmethodologies/approve</a>”</i>				
Documentation provided by project participant				
DOE assessment				Date: 21/01/2016
Verifier is unable to access the reference link provided ( <a href="http://cdm.unfccc.int/methodologies/SSCmethodologies/approve">http://cdm.unfccc.int/methodologies/SSCmethodologies/approve</a> )				
CAR01 is still pending.				
Project participant response				Date: 08/02/2017
<i>The reference link for the footnote 1 has been updated as follow “<a href="http://cdm.unfccc.int/methodologies/SSCmethodologies/approved">http://cdm.unfccc.int/methodologies/SSCmethodologies/approved</a>”</i>				
Documentation provided by project participant				
DOE assessment				Date: 06/03/2017
Verification team found that the correction in MR version 03 dated 28/01/2017 was not consistent with the justification provided.				
CAR01 is still pending.				
Project participant response				Date: 24/03/2017
<i>It was typo error of the link, so the link has been updated as follow “<a href="http://cdm.unfccc.int/methodologies/SSCmethodologies/approved">http://cdm.unfccc.int/methodologies/SSCmethodologies/approved</a>”</i>				
Documentation provided by project participant				

<b>DOE assessment</b>	<b>Date:</b> 27/03/2017
Verification team reviewed MR version 04 dated 24/03/2017. It is confirmed that the information is now corrected.	
CAR01 is closed.	

<b>CAR ID</b>	02	<b>Section no.</b>	E.1	<b>Date:</b> 17/09/2015
<b>Description of CAR</b>				
<i>With reference to para 244(b), PS version 09.0 and section B.1 of MR, there is no information of relevant date e.g. construction, commissioning, and start of operation provided.</i>				
<b>Project participant response</b>				<b>Date:</b> 14/01/2016
<i>"EGAT signed an EPC agreement to implementation/construction of the project on 16/12/2008. The project activity was constructed and installed and then export the electricity to the grid on 02/07/2014" has been added</i>				
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> 21/01/2016
Please provide the evidence 'EGAT's meeting invitation letter' to confirm the constructed and installed and then export the electricity to the grid on 02/07/2014.				
CAR02 is pending.				
<b>Project participant response</b>				<b>Date:</b> 08/02/2017
<i>The evidence has been submitted as file "First exporting date to the grid 02072014.pdf"</i>				
<b>Documentation provided by project participant</b>				
<i>First exporting date to the grid 02072014.pdf</i>				
<b>DOE assessment</b>				<b>Date:</b> 06/03/2017
Verification team accepted the evidence " <i>First exporting date to the grid 02072014.pdf</i> " from PP with no further question.				
CAR02 is closed.				

<b>CAR ID</b>	03	<b>Section no.</b>	E.1	<b>Date:</b> 17/09/2015
<b>Description of CAR</b>				
<i>With reference to para 244(c) of Project Standard version 09.0 and section B.1 of MR version 01, there is no description of the following</i>				
<ul style="list-style-type: none"> <li><i>- The events or situations that occurred during the monitoring period that may impact the applicability of the applied methodology and, where applicable, the applied standardized baseline</i></li> <li><i>- How the issues resulting from these events or situations have been addressed.</i></li> </ul>				
<b>Project participant response</b>				<b>Date:</b> 14/01/2016
<i>"There are no events or situations that occurred during the monitoring period that may impact the applicability of the applied methodology AMS-I.D version 17" has been added</i>				
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> 21/01/2016
Verification team reviewed the revision in section B.1 of MR version 02 dated on 14/01/2016. It is confirmed that description had been added. There is no further issue on this.				
This revision is satisfied and CAR03 is closed.				

<b>CAR ID</b>	04	<b>Section no.</b>	E.4.6	<b>Date:</b> 17/09/2015
<b>Description of CAR</b>				
<i>With reference to para 245 of Project Standard version 09.0 and section B.1 of MR version 01, there is no description whether any request for prior approval by the Board of changes to the registered CDM project activity has been submitted and if applicable the detail of the date of approval</i>				
<b>Project participant response</b>				<b>Date:</b> 14/01/2016

<p>There are two changes of project design which are</p> <ol style="list-style-type: none"> <li>1) Rated capacity and Rated current of generator</li> <li>2) Runaway speed of turbine</li> </ol> <p>and Change of monitoring plans of the project activity</p> <p>These changes are described in section B.2.5 and B.2.6 respectively. These changes have been submitted to this monitoring report as they are not required prior approval by the Executive Board due to the changes does not adversely impact to a) The applicability and application of the applied methodology and, where applicable, the applied standardized baseline under which the project activity has been registered, b) The additionality of the project activity, c) The scale of the project activity as indicated in Appendix 1 (6) of CDM project standard version 09.0</p>	
<b>Documentation provided by project participant</b>	
<b>DOE assessment</b>	<b>Date:</b> 21/01/2016
<p>Verification team reviewed the revision in section B.1 of MR version 02 dated on 14/01/2016. It is confirmed that description whether any request for prior approval by the Board of changes to the registered CDM project activity has been submitted and if applicable the detail of the date of approval had been added.</p> <p>This revision is satisfied and CAR04 is closed.</p>	

<b>CAR ID</b>	05	<b>Section no.</b>	E.6.1	<b>Date:</b> 17/09/2015
<b>Description of CAR</b>				
<p><i>With reference to parameter <math>EF_{grid,CM}</math> in section D.1 of MR, the following information/data is not consistent with information provided in registered PDD as follows;</i></p> <p><i>- Description</i></p> <p><i>- Value(s) applied</i></p>				
<b>Project participant response</b>				<b>Date:</b> 14/01/2016
<p>The description and Value(s) applied have been revised to be consistent with information provided in registered PDD as following "Description: Carbon emissions factor for the Thailand grid" and "Value(s): 0.556"</p>				
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> 21/01/2016
<p>Verification team reviewed the revision in section D.1 of revised MR version 02 dated on 14/01/2016. It is confirmed that the information is now corrected.</p> <p>This revision is satisfied and CAR05 is closed.</p>				

<b>CAR ID</b>	06	<b>Section no.</b>	E.1	<b>Date:</b> 17/09/2015
<b>Description of CAR</b>				
<p><i>With reference to appendix 1 of MR, there is no name of contact person of project participant provided.</i></p>				
<b>Project participant response</b>				<b>Date:</b> 14/01/2016
<p>Name of contact person of project participant as been added as following "Ms. Waraporn Kunawanakit"</p>				
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> 21/01/2016
<p>Verification team reviewed the revision in Appendix 1 of revised MR version 02 dated on 14/01/2016. It is confirmed that the information is now corrected.</p> <p>This revision is satisfied and CAR06 is closed.</p>				

Table 4. FAR from this verification

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