VERIFICATION AND CERTIFICATION REPORT

-GOLD STANDARD PRE CDM VER –

INNOVATIVE CARBON INVESTMENT CORPORATION

EVERBRIGHT ZHENJIANG BUNDLED SOLAR PV POWER GENERATION PROJECT_PRECDM VER

GOLD STANDARD REF. NO. : 2403

Monitoring Period: 2011-08-27 to 2012-03-31

(incl. both days)

Report No: QT-SHC03004/13 - 13/113

Date: 2013-11-06

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Verification Report:	***Report No.***	***Rev. No.***	***Date of 1st issue:***	***Date of this rev.***
	QT-SHC03004/13 - 13/113	0	2013-09-24	2013-11-06
Project:	***Title:***		***GS Registration date:***	***GS-No.:***
	Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER		2013-08-26	2403
			UNFCCC-No.: 5945	
			Verification No.: - Pre-CDM VER verification	
	GS Crediting period:		***From:***	***To:***
	☒ *Renewable (7y)* ☐ *Fixed (10y)*		2012-04-01	2019-03-31
	Project Scale:			
	☐ *Large Scale* ☒ *Small Scale*			
Project Participant(s):	***Client:***			
	Innovative Carbon Investment Corporation			
Applied methodology/ies:	***Title:***		***No.:***	***Scope(s) / TA(s)***
	Grid connected renewable electricity generation		AMS-I.D ver. 17.0	1 / 1.2
Monitoring period and monitoring report	***Pre-CDM Monitoring period (MP):***		***Monitoring Report:***	
	From: / ***To:*** / ***No. of days:***		***Draft version:***	***Final version:***
	2011-08-27 / 2012-03-31 / ***218***		2013-08-30	2013-11-06
Verification team / Technical Review and Final Approval:	***Verification Team:***		***Technical review:***	***Final approval:***
	TL: Yu Miao TM: Zhao Xuejiao			
Key dates of verification:	***Publication of Wok Plan :***	***DVerR issued:***	***On-site (from):***	***On-site (to):***
	2013-09-02	2013-09-09	2013-09-06	2013-09-06
Summary of Verification opinion	Innovative Carbon Investment Corporation has commissioned the TÜV NORD JI/CDM Certification Program to carry out the Gold Standard Pre-CDM VER verification of the project: "Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER", with regard to the relevant requirements for Gold Standard project activities. As a result of this verification, the verifier confirms that: ☒ all operations of the project are implemented and installed as planned and described in the GS registered project design document, ☒ the monitoring plan is in accordance with the applied approved CDM methodology, ☒ the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately, ☒ the monitoring system is in place and functional. The project has generated GHG emission reductions, and ☒ the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as listed below (verified amount).			
Emission reductions: [t CO_{2e}]	***Total verified amount***	***As per draft MR:***	***As per GS PDD:***	
	2,533 tCO_2e	2,533 tCO_2e	4,162 tCO_2e	
Document information:	***Filename:***		***No. of pages:***	
	2013-11-06 FVerR_Pre CDM VER_Zhenjiang Bundled Solar		80	

Abbreviations:

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon dioxide
CO_{2eq}	Carbon dioxide equivalent
DVerR	Draft Verification Report
ECPG	East China Power Grid
EIA	Environmental Impact Assessment
EPB	Environmental Protection Bureau
ER	Emission Reduction
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse gas(es)
GS	Gold Standard
GSP	Gold Standard Passport
GS PDD	Gold Standard Project Design Document
GS-TAC	Gold Standard Technical Advisory Committee
GSTK	Gold Standard Toolkit
IPCC	Intergovernmental Panel on Climate Change
LSC	Local Stakeholder Consultation
LSCR	Local Stakeholder Consultation Report
MDG	Millennium Development Goals
MP	Monitoring Plan
MR	Monitoring Report
NDRC	National Development and Reform Commission of the People's Republic of
NGO	Non Government Organisation
PA	Project Activity
PDD	Project Design Document
PP	Project Participant

QA/QC	Quality Assurance / Quality Control
SD	Sustainable Development
SFR	Stakeholder Feedback Round
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
XLS	Emission Reduction Calculation Spread Sheet

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1. INTRODUCTION

Innovative Carbon Investment Corporation has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the GS Pre-CDM VER verification of the project

"Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER"

with regard to the relevant requirements for Gold Standard project activities. The verifiers have reviewed the implementation of the monitoring plan (MP) in the registered Gold Standard project.

GHG data for the monitoring period was verified in detailed manner applying the set of requirements, audit practices and principles as required under the Gold Standard Requirements version 2.2, the Gold Standard Toolkit version 2.2 and respective Annexes, Validation and Verification Standard /VVS/ of the UNFCCC.

This report summarizes the findings and conclusions of this GS Pre-CDM VER verification of the above mentioned Gold Standard registered project activity.

1.1. Objective

The objective of the verification is the review and ex-post determination by an independent entity of the GHG emission reductions. It includes the verification of the:

- implementation and operation of the project activity as given in the GS PDD,
- compliance with applied approved methodology and the provisions of the monitoring plan,
- data given in the monitoring report by checking the monitoring records, the emissions reduction calculation and supporting evidence,
- accuracy of the monitoring equipment,
- quality of evidence,
- significance of reporting risks and risks of material misstatements.

1.2. Scope

The verification of this registered project is based on the validated GS project design document /PDD/, the monitoring report /MR/, emission reduction calculation spread sheet /XLS/, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The verification is carried out on the basis of the following requirements, applicable for this project activity:

- Article 12 of the Kyoto Protocol /KP/,

- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1 /MA/, and subsequent decisions made by the Executive Board and COP/MOP,
- other relevant rules, including the host country legislation,
- CDM Validation and Verification Standard /VVS/,
- monitoring plan as given in the registered GS PDD /PDD/,
- Approved CDM Methodology,
- Gold Standard Requirements version 2.2,
- Gold Standard Toolkit version 2.2.

2. GHG PROJECT DESCRIPTION

2.1. Technical Project Description

The project is a renewable solar PV electricity generation project activity that will displace electricity generation in the East China Power Grid (ECPG), displacing fossil fuel dominated electricity generation and thus resulting in greenhouse gases emission reductions.

The project is a grid connected solar photovoltaic (PV) project with a total installed capacity of 13.3MW (3.5MW+9.8MW).

The bundled project includes 2 small-scale PV power generation projects as follows:

Jiangsu Zhenjiang PV Power Plant Phase I: The total installed capacity is 3.5 MWp. The estimated annual net electricity generation is 3,797 MWh. The generated electricity will be delivered to East China Power Grid (ECPG).

Jiangsu Zhenjiang PV Power Plant Phase II: The total installed capacity is 9.8 MWp. The estimated net electricity generation for the first year is 10,837 MWh. The generated electricity will be delivered to East China Power Grid (ECPG).

The key parameters of the project are given in Table 2-1:

Table 2-1: Technical data of the project activity

Parameter		Unit	Value			
			Phase I		Phase II	
Solar Cells	Type		DA 100	DA102	TW240(28)P	JKM235P-60
	Manufacturer		DuPont Apollo (Shenzhen) Limited		Tianwei Solution (Beijing) Co., Ltd	Zhejiang Jingke Energy Co.,Ltd
	Material		amorphous silicon thin film		polycrystalline silicon	
	Peak power	W/Wp	100 ± 5%	102±5%	240	235
	Rated power voltage	V	74.1~76.96	74.26~78.06	30.3	29.6
	Open circuit voltage	V	98.5~99.2	99.38~100.68	37.1	36.8
	Rated power current	A	1.3~1.35	1.3~1.37	7.92	7.78
	Short circuit current	A	1.55~1.66	1.55~1.66	8.88	8.35
	Conversion Efficiency	%	6.4	6.5	14.59	N/A
	Number of module	Pieces	23600	10776	34,625	6340
Inverter	Type		SG500-KTL		SG500-KTL / SG630-KTL	Solar Lake 10000TL / Solar Lake 15000TL
	Manufacturer		Sungrow Power Supply		Sungrow Power	Samil New

			Co., Ltd	Supply Co., Ltd		energy Co., Ltd	
	Rated capacity	kW	500	500	630	10	15
	Maximum DC Power	kW	550	550	700	10.4	15.6
	MPPT voltage range	Vdc	450~820	450~820	500~820	320~800	380~800
	Rated output voltage	V	270	270	315	400	
	Maximum Input current	A	1200	1200	1400	16/16, 20/20	
	Number of units	units	7	13	1	9	73
	Maximum Efficiency	%	98.7	98.7		98	

2.2. Project Location

The details of the project location are given in Table 2-1:

Table 2-1: Project Location

No.	Project Location
Host Country	China
Region:	Jiangsu Province
Project location address:	Zhenjiang city
Latitude:	32°10'13"~32°10'34"N (Phase I) 32°10'17"~32°11'37"N (Phase II)
Longitude:	119°38'55"~119°39'37"N (Phase I) 119°30'22"~119°31'04"N (Phase II)

2.3. Project Verification History

Essential events since the registration of the project are presented in the following Table 2-2.

Table 2-2: Status of previous Monitoring Periods

#	Item	Time	Status
1	Date of CDM registration	2012-03-26	-
2	Date of GS registration	2013-08-26	
3	Start of GS crediting period	2012-04-01	-

#	Item	Time	Status
4	GS Pre-CDM VER	2010-12-23 to 2012-03-31	On-going

An overview of all Post Registration Changes is given in the following table.

Table 2-3: Overview Post Registration Changes

#	Applicable from – to / as of	MP	Type of post registration change [1)]	Description	Status[2)] / Date
1	N/A	-	TDfrMP	N/A	N/A
2	N/A	-	TDfMM	N/A	N/A
3	N/A	-	CrPDD	N/A	N/A
4	N/A	-	PCfrMP	N/A	N/A
5	N/A	-	PCfMM	N/A	N/A
6	N/A	-	CoPD	N/A	N/A

1) TDfrMP : Temporary deviation from registered monitoring plan
TDfMM : Temporary deviation from the monitoring methodology
CrPDD : Corrections to the registered GS PDD
PCfrMP : Permanent changes from registered Monitoring Plan
PCfMM : Permanent changes from Monitoring Methodology
CoPD : Changes to the project design of a registered project activity

2) Approval (by EB) or Acceptance (by DOE)

3. METHODOLOGY AND VERIFICATION SEQUENCE

3.1. Verification Steps

The verification consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- A desk review of the Monitoring Report /MR/ submitted by the client and additional supporting documents with the use of customised verification protocol /CPM/ according to the Gold Standard Requirements version 2.2, the Gold Standard Toolkit version 2.2 and respective Annexes, Validation and Verification Standard /VVS/,
- Verification Planning,
- Publication of Verification Workplan,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft verification reporting
- Resolution of corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the verification.

3.2. Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the verification can be provided,
- Impartiality issues are clear and in line with the GS accreditation requirements

a contract review was carried out before the contract was signed.

3.3. Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consisting of one team leader was appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the Table 3-1 below.

Table 3-1: Involved Personnel

	Name	Company	Function [1]	Qualification Status [2]	Scheme competence [3]	Technical competence [4]	Verification competence [5]	Host country Competence	On-site visit
☐ Mr. ☒ Ms.	Yu Miao	TÜV NORD China	TL	LA	☒	1.2	☒	☒	☐
☐ Mr. ☒ Ms.	Zhao Xuejiao	TÜV NORD China	TM	LA	☒	1.2	☒	☒	☒
☐ Mr. ☒ Ms.	Katja Beyer	TÜV NORD Cert GmbH	TR[B]	LA	☒		☒	☐	-
☒ Mr. ☐ Ms.	Jochen Schubert	TÜV NORD Cert GmbH	TR/ FA[B]	SA	☒	1.2	☒	☐	-

1) TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval
2) GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert
3) GHG auditor status (at least Assessor)
4) As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, …)
5) In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE
B) No team member

Team Leader contributed to the review of documents, the assessment of the project activity and to the preparation of this report.

Team Leader and team member contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

Statements of competence for the above mentioned involved personnel are enclosed in annex 2 of this report.

3.4. Verification Planning

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Risk analysis and detailed audit testing planning

For the identification of potential reporting risks and the necessary detailed audit testing procedures for residual risk areas table A-1 is used. The structure and content of this table is given in Table 3-2 below.

Table 3-2: Table A-1; Identification of verification risk areas

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing				
Identification of potential reporting risk	**Identification, assessment and testing of management controls**	**Areas of residual risks**	**Additional verification testing performed**	**Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)**
The following potential risks were identified and divided and structured according to the possible areas of occurance.	*The potential risks of raw data generation have been identified in the course of the monitoring system implementation.* *The following measures were taken in order to minimize the corresponding risks.* *The following measures are implemented:*	*Despite the measures implemented in order to reduce the occurrence probability the following residual risks remain and have to be addressed in the course of every verification.*	*The additional verification testing performed is described. Testing may include:* - *Sample cross checking of manual transfers of data* - *Recalculation* - *Spreadsheet 'walk throughs' to check links and equations* - *Inspection of calibration and maintenance records for key equipment* - *Check sampling analysis results* *Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.*	*Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.*

The completed table A-1 is enclosed in Annex 1 (table A-1) to this report.

Project specific periodic verification checklist

In order to ensure transparency and consideration of all relevant assessment criteria, a project specific verification protocol has been developed. The protocol shows, in a transparent manner, criteria and requirements, means and results of the verification. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements a GS project is expected to meet for verification

- It ensures a transparent verification process where the verifying DOE documents how a particular requirement has been proved and the result of the verification.

The basic structure of this project specific verification protocol for the periodic verification is described in Table 3-3.

Table 3-3: Table A-2; Structure of the project specific periodic verification checklist

Table A-2: Periodic verification checklist				
Checklist Item	***Reference***	***Verification Team Comments***	***Draft Conclusion***	***Final Conclusion***
The checklist items in Table A-2 are linked to the various requirements the monitoring of the project should meet. The checklist is organised in various sections as per the requirements of the topic and the individual project activity. It further includes guidance for the verification team.	*Gives reference to the information source on which the assessment is based on.*	*The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the verification team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.*	*Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft verification stage.*	*In case of a corrective action or a clarification the final assessment at the final verification stage is given.*

The periodic verification checklist (verification protocol) is the backbone of the complete verification starting from the desk review until final assessment. Detailed assessments and findings are discussed within this checklist and not necessarily repeated in the main text of this report.

The completed verification protocol is enclosed in Annex 1 (table A-2) to this report.

3.5. Desk review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the last revision of the GS Passport and GS PDD including the monitoring plan[/GSP/&/PDD/],
- the last revision of the GS validation report[/VAL/],
- the monitoring report, including the claimed emission reductions for the project[/MR/],
- the emission reduction calculation spreadsheet[/XLS/].

Other supporting documents, such as publicly available information on the UNFCCC website and GS website, and background information were also reviewed.

3.6. On-site assessment

As most essential part of the verification exercise it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission reductions. The main tasks covered during the site visit include, but are not limited to:

- The on-site assessment included an investigation of whether all relevant equipment is installed and works as anticipated.
- The operating staff was interviewed and observed in order to check the risks of inappropriate operation and data collection procedures.
- Information processes for generating, aggregating and reporting the selected monitored parameters were reviewed.
- The duly calibration of all metering equipment was checked.
- The monitoring processes, routines and documentations were audited to check their proper application.
- The monitoring data were checked completely.
- The data aggregation trails were checked via spot sample down to the level of the meter recordings.

Before and during the on-site visit the verification team performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Representatives of Everbright Photovoltaic Energy (Zhenjiang) Limited (Project owner) and Innovative Carbon Investment Corporation (project buyer) including the operational staff of the plant were interviewed. The main topics of the interviews are summarised in Table 3-4.

Table 3-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
1. Projects & Operations Personnel: Everbright Photovoltaic Energy (Zhenjiang) Limited /IM01/ 2. Project buyer: Innovative Carbon Investment Corporation/IM02/	- General aspects of the project - Technical equipment and operation - Changes since validation / previous verification - Monitoring and measurement equipment - Remaining issues from validation/ previous verification - Calibration procedures - Quality management system - Involved personnel and responsibilities - Training and practice of the operational personnel - Implementation of the monitoring plan - Monitoring data management - Data uncertainty and residual risks

Interviewed Persons / Entities	Interview topics
	- GHG emission reduction calculation - Procedural aspects of the verification - Maintenance - Environmental aspects - Sustainable development issues

The list of interviewees is included in chapter 7.4.

3.7. Draft verification reporting

On the basis of the desk review, the on-site visit, follow-up interviews and further background investigation the verification protocol is completed. This protocol together with a general project and procedural description of the verification and a detailed list of the verification findings form the draft verification report. This report is sent to the client for resolution of raised CARs, CLs and FARs.

3.8. Resolution of CARs, CLs and FARs

Nonconformities raised during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

Corrective Action Requests (CARs) are issued, if:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- Issues identified in a FAR during validation or previous verifications requiring actions by the project participants to be verified during verification have not been resolved.

The verification team uses the term Clarification Request (CL), which is be issued if:

- information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Forward Action Requests (FAR) indicate essential risks for further periodic verifications. Forward Action Requests are issued, if:

- the monitoring and reporting require attention and / or adjustment for the next verification period.

For a detailed list of all CARs, CLs and FARs raised in the course of the verification pl. refer to chapter 4.

3.9. Final reporting

Upon successful closure of all raised CARs and CLs the final verification report including a positive verification opinion can be issued. In case not all essential issues could finally be resolved, a final report including a negative verification opinion is issued.

The final report summarizes the final assessments w.r.t. all applicable criteria.

3.10. Technical review

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

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

3.11. Final approval

After successful technical review an overall (esp. procedural) assessment of the complete verification will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the request for issuance can be started.

4. VERIFICATION FINDINGS

In the following paragraphs the findings from the desk review of the monitoring report/MR/, the calculation spreadsheet/XLS/, GS PDD/PDD/, the Validation Report/VAL/ and other supporting documents, as well as from the on-site assessment and the interviews are summarised.

The summary of CAR, CL and FAR issued are shown in Table 4-1:

Table 4-1: Summary of CAR, CL and FAR

Verification topic	No. of CAR	No. of CL	No. of FAR
A – Description of project activity	0	0	0
B – Implementation of project activity	0	0	0
C – Description of monitoring system	0	0	0
D – Data and parameters	0	0	0
E - Calculation of Emission Reductions	0	0	0
F- Monitoring of Sustainable Indicators	0	0	0
SUM	**0**	**0**	**0**

5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CRs are closed out. For details of the assessments pl. refer to the discussion of the verification findings in chapter 4 and the verification protocol (Annex 1).

5.1. Involved Parties and Project Participants

The following project participants are involved in this project activity.

Table 5-1: Project Parties and project participants

Party	Project Participant
P. R. China	Everbright Photovoltaic Energy (Zhenjiang) Limited
United Kingdom of Great Britain and Northern Ireland	Innovative Carbon Investment Corporation

5.2. Implementation of the project

During the verification a site visit was carried out. On the basis of this site visit and the reviewed project documentation it can be confirmed that w.r.t. the realized technology, the project equipments, as well as the monitoring and metering equipment, the project has been implemented and operated as described in the registered PDD/PDD/.

The project utilizes solar power to generate electricity by installing PV modules and inverters. The generated power is measured by meters. The project exported electricity to the East China Power Grid (ECPG), which contains Shanghai, Jiangsu Province, Zhejiang Province, Anhui Province and Fujian province. The meter readings/LOG/, meter calibration certificates/CAL/, monthly electricity sale/purchase-invoices, electricity transaction notes/INO/ and plant operation records/O&M/ were verified by the verification team during the on-site visit.

- Jiangsu Zhenjiang PV Power Plant Phase I: The power generation starts on 2010-12-23/APO/.
- Jiangsu Zhenjiang PV Power Plant Phase I: The power generation starts on 2011-12-22/APO/.

All required equipments and necessary monitoring instruments are installed. The measuring devices are well known and state-of-the-art. All required instruments including stand by and operating procedures for the same have been implemented in an appropriate manner.

For the metering purpose, one sealed meters is installed for measuring the net electricity delivered to the grid for phase I; and two sealed meters are installed for measuring the net electricity delivered to the grid for phase II/PPA/. The three bidirectional meters with accuracy of 0.5s each are used as invoice meters measuring the imported and exported power. The meter reading records are confirmed by the Grid Company and PP together.

During the pre-CDM monitoring period, the three meters were in normal condition.

The three meters mentioned above are calibrated yearly by Metering Centre of Jiangsu Province Power Company Zhenjiang Power Supply Company, which is authorized by Jiangsu Province Bureau of Quality and Technical Supervision /CAL/. Neither mistakes nor malfunction have been observed during this monitoring period.

The technical information of meters is as below:

Table 5-1: Key meters information

	Type	Serial No.	Accuracy	Calibration Date	Calibration Validity
M1	DSSD331	20080515040016	0.5S	2011-03-17	2012-03-16
				2012-03-15	2013-03-14
M2	DSSD331	20080515050060	0.5S	2011-03-17	2012-03-16
				2012-03-15	2013-03-14
M3	DSSD331	20080515040158	0.5S	2011-03-17	2012-03-16
				2012-03-15	2013-03-14

The calibration reports/CAL/ have been checked by the verification team. It is confirmed that there were no errors in the measuring equipments.

The submitted monitoring report which forms the basis of the verification was prepared by summarizing consolidated monthly data and cross-checked with sold/purchase electricity invoices over the whole monitoring period in accordance with the registered PDD/PDD/.

During the monitoring period, the project exported 3,205 MWh of net electricity. The net electricity supplied was verified by the verification team during the on-site visit by checking the Monthly Meter reading records/MMR/ and transaction note /INO/. The data was also cross-checked with the electricity sale and purchase invoices.

Through interviews with operation personnel/IM01/, checking the operation log/LOG/ and maintenance records/O&M/, the verification team can confirm that no significant incident, deviant operation modes and/or downtimes of the equipments occurred.

5.3. Project history

The project was registered as CDM project on 2012-03-26 and registered as GS project on 2013-08-26. The first renewable crediting period (7 years) of CDM started

on 2012-04-01. According to Para. V.a.2.3 of Gold Standard Requirements Version 2.2, “Project activities proceeding under the retroactive project cycle, may be eligible for retroactive crediting for realized emission reductions prior to Gold Standard registration of a maximum period of two years”, the project is a retroactive project, hence, the PP choose the start of The Gold Standard crediting period as 2012-04-01.

According to Para. V.a.5 of Gold Standard Requirements Version 2.2, “Projects Representatives can claim Gold Standard Pre-CDM VERs for a maximum of two years prior to the start of the CDM or JI crediting period (date of registration/determination under UNFCCC)”, hence, the PP choose to claim Gold Standard Pre-CDM VERs from 2011-08-27.

This is the GS Pre-CDM VER verification. During the validation the validating DOE did not raise issues that could not be closed or resolved during the validation stage/VAL/.

5.4. Post registration changes

No post registration changes applicable for this monitoring period have been observed during the monitoring period.

5.5. Compliance with the monitoring plan

On the basis of the site visit and reviewed project documentation, such as technical specification of the main equipment/TS/, calibration record/CAL/, meter reading records/LOG/, operation log/LOG/, power purchase agreement/PPA/ and staff training records/PTR/, it can be confirmed that the monitoring system to conduct the monitoring activities are in compliance with the registered monitoring plan. The monitoring system and all applied procedures are completely in compliance to the registered monitoring plan/PDD/.

5.6. Compliance with the monitoring methodology

The monitoring system is in compliance with the applied monitoring methodology (AMS-I.D version 17.0).

5.7. Monitoring parameters

Parameters for Emission Reduction

During the verification all relevant monitoring parameters (as listed in chapter 7.1 of the PDD) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist.

According to the monitoring plan contained in the registered PDD, the net generated electricity delivered to the grid in year y ($EG_{BL,y}$) is the total of net electricity generated by Zhenjiang phase I and Zhenjiang phase II. The net electricity is calculated as the difference of the exported electricity ($EG_{ex,y,Zhenjiang\ phase\ I}$; $EG_{ex,y,Zhenjiang\ phase\ II}$) and imported electricity ($EG_{in,y,Zhenjiang\ phase\ I}$; $EG_{in,y,Zhenjiang\ phase\ II}$). The quantity of exported electricity and imported electricity are measured continuously by three bidirectional meters (i.e. M1, M2 and M3). After confirming the electricity quantity, the project owner provides sales invoices to the grid company for the settlement of the electricity revenue. The project owner conducts the payment after confirming imported electricity and then obtains purchasing receipts from the grid company.

The quantity of net electricity supplied to the grid by the proposed project in year y is calculated by the following formula:

$$EG_{BL,y} = EG_{facility,y,Zhenjiang\ phase\ I} + EG_{facility,y,Zhenjiang\ phase\ II}$$
$$= (EG_{ex,y,Zhenjiang\ phase\ I} - EG_{in,y,Zhenjiang\ phase\ I}) + (EG_{ex,y,Zhenjiang\ phase\ II} - EG_{in,y,Zhenjiang\ phase\ II})^{/MP/}.$$

To ensure conservativeness and crosscheck all monitoring data used for emission reduction calculations, the following parameters are monitored:

- $EG_{facility,y,Zhenjiang\ phase\ I}$: Net electricity supplied to the grid by Zhenjiang Phase I Project, which is calculated from $EG_{ex,y,Zhenjiang\ phase\ I}$ and $EG_{in,y,Zhenjiang\ phase\ I}$;

- $EG_{facility,y,Zhenjiang\ phase\ II}$: Net electricity supplied to the grid by Zhenjiang Phase II Project, which is calculated from $EG_{ex,y,Zhenjiang\ phase\ II}$ and $EG_{in,y,Zhenjiang\ phase\ II}$;

- $EG_{ex,y,Zhenjiang\ phase\ I}$: Electricity supplied to the grid by Zhenjiang phase I project, which is measured by M1 installed at the gate way;

- $EG_{in,y,Zhenjiang\ phase\ I}$: Electricity consumed by Zhenjiang phase I project importing from the grid, which is measured by M1 installed at the gate way;

- $EG_{ex,y,Zhenjiang\ phase\ II}$: Electricity supplied to the grid by Zhenjiang phase II project, which is measured by M2 and M3 installed at the gate way of Qingfangyuan substation and Kejixincheng substation respectively;

- $EG_{in,y,Zhenjiang\ phase\ II}$: Electricity consumed by Zhenjiang phase II project importing from the grid, which is measured by M2 and M3 installed at the gate way of Qingfangyuan substation and Kejixincheng substation respectively;

Staff records meter readings every month at 24:00 of the last day. All records needed for monitoring are archived. This is in line with the requirements of the monitoring manual[/MM/] and the registered monitoring plan[/MP/]. No significant lack of evidence and missing data were detected during the on-site verification.

It could be evidenced that the monitoring system ensures a continuous operation. It could be confirmed that all monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements.

SD Indicators

According to the requirements of the Gold Standard vesrion 2.2 and the registered GS passport, during the monitoring period, there are 7 and 6 sustainable development indicators of the Zhenjiang phase I project and Zhenjiang phase II project respectively.

1. Quality of employment (Zhenjiang phase I project & phase II project)

The operation and maintenance regulations have been established and the trainings have been conducted about every 6 months including knowledge about CDM, the operation of project equipments/computer operations, emergency and safety procedures.
The regulations and training records have been checked. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

2. Access to affordable and clean energy services(Zhenjiang phase I project & phase II project)

The annual net electricity supplied to the grid by the Zhenjiang Phase I Project & phase II project has been recorded through meter reading at 24:00 of the last day every month. The monthly meter reading records have been checked. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

3. Quantitative employment and income generation(Zhenjiang phase I project & phase II project)

Zhenjiang Phase I Project: 17 job positions were offered by the project. A total of 65,000 RMB/year was paid to the 17 employees and the salary is above the local average salary level of 45,487 RMB / year.

Zhenjiang Phase II Project: 17 job positions were offered by the project. A total of 65,000 RMB/year was paid to the 17 employees and the salary is above the local average salary level of 45,487 RMB / year.

The project owners have been interviewed. The organization chart and the labor payrolls are checked by DOE. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport..

4. Air quality(Zhenjiang phase I project & phase II project)

The mitigation measures including wet damping and sprinkler are applied to control the dust emission during the construction have been checked and examined by the Zhenjiang City Environmental Protection Bureau.

The validation team has checked the Examination and Acceptance of Environmental Protection for the Zhenjiang Phase I Project issued by the Zhenjiang City Environmental Protection Bureau on 2011-05-04, and Examination and Acceptance of Environmental Protection for the Zhenjiang Phase II Project issued by the Zhenjiang City Environmental Protection Bureau on 2012-11-14. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport..

5. Water quality and quantity(Zhenjiang phase I project & phase II project)

The mitigation measure i.e. washing wastewater is treated in waste water management system before discharged has been checked and examined by the Zhenjiang City Environmental Protection Bureau.

The validation team has checked the Examination and Acceptance of Environmental Protection for the Zhenjiang Phase I Project issued by the Zhenjiang City Environmental Protection Bureau on 2011-05-04, and Examination and Acceptance of Environmental Protection for the Zhenjiang Phase II Project issued by the Zhenjiang City Environmental Protection Bureau on 2012-11-14. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport..

6. Other pollutants (Zhenjiang phase I project & phase II project)

The mitigation measures (i.e. construction operations and movement of traffic are restricted to daylight hours to avoid any discomfort for the nearby resident, and use equipment with low noise emissions during the construction) have been checked and examined by the Zhenjiang City Environmental Protection Bureau.

The validation team has checked the Examination and Acceptance of Environmental Protection for the Zhenjiang Phase I Project issued by the Zhenjiang City Environmental Protection Bureau on 2011-05-04, and Examination and Acceptance of Environmental Protection for the Zhenjiang Phase II Project issued by the Zhenjiang City Environmental Protection Bureau on 2012-11-14. The parameter has been monitored in line with the Gold Standard vesrion 2.2 and the registered GS passport..

7. Soil condition(Zhenjiang phase I project)

The mitigation measure i.e. replantation in the affected places is conducted after the completion of the construction work has been checked and examined by the Zhenjiang City Environmental Protection Bureau.

The validation team has checked the Examination and Acceptance of Environmental Protection for the Zhenjiang Phase I Project issued by the Zhenjiang City Environmental Protection Bureau on 2011-05-04. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

5.8. Monitoring report

A draft monitoring report was submitted to the verification team by the project participants. The team has made this report publicly available prior to the start of the verification activities. No comments were received.

During the verification, mistakes and needs for clarification were identified. The PP has carried out the requested corrections so that it can be confirmed that the Monitoring report is complete and transparent and in accordance with the registered PDD and other relevant requirements.

5.9. Sampling

5.9.1. Implementation of the sampling plan

No sampling was required to determine the monitored parameters.

5.9.2. Sampling approaches during verification

No sampling approaches were taken during the verification.

5.10. ER Calculation

The ER calculation spreadsheet had been provided by PP and has been verified by verification team as reproducible, thus it is confirmed that the ER calculation is overall correct.

The GHG emission reduction is calculated as baseline emission minus project emission and leakage emission.

For the calculation of baseline emissions the ex-ante determined value of baseline parameters, i.e., ECPG Emission Factor is taken into account which is a validated value.

Baseline Emissions:

The formula used for the determination of baseline emissions which is consistent with the PDD and Monitoring Report:

Baseline Emissions:

BE_y = Grid Emission Factor X quantity of net electricity exported to the ECPG

= $EF_{CO2,\ grid,y}$ X $EG_{BL,y}$

= 0.7905 tCO_2/MWh X 3,205.396MWh

= 2,533 tCO_2

Where:

BE_y	Baseline emissions in year y (tCO2)
$EG_{BL,y}$	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
$EF_{CO2,grid,y}$	CO2 Emission Factor of the grid in year y. (tCO_2/MWh)

The baseline emissions (BE) during this monitoring period are 2,533 tCO_2.

In accordance with AMS-I.D. ver.17, the registered PDD/PDD/ and the validation report/VAL/, project emission and leakage were ignored.

Following documents/records were verified by the verification team:
- Monthly electricity transaction notes issued by the Power Grid Company;
- Monthly meter readings.

All figures as per the monitoring report were cross-checked by the verification team against basic monitored data. The data used for the emission reduction calculation were derived from the monthly electricity balance sheets as well as meter readings depending on the more conservative value. All the data were issued or confirmed by the Power Grid Company and cross checked by the monthly invoices.

Project Emission & Leakage:

According to AMS-I.D. ver.17, the project emission and leakage are zero.

Emissions Reduction:

$ER_y=BE_y=2,533\ tCO_2$.

5.11. Quality Management

Quality Management procedures for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel in the framework of this CDM project activity have been defined in the monitoring manual and relevant procedures. The procedures defined can be assessed as appropriate for the purposes indicated above. No significant deviations thereof have been observed during the verification.

The data recorder list was established and all monitored data are archived both in physical (daily data) and in electronic form. The data will be kept for the whole crediting period and additional 2 years as given in the PDD.

Meters calibration plan was established and followed, the meters will be calibrated yearly. The calibration records covering the monitoring period were maintained. No major non-conformity was found in the internal audit which was checked via on-site interviews.

5.12. Actual emission reductions during the first commitment period and the period from 1 January 2013 onwards

The MR includes actual ER values achieved from 2011-08-27 to 2012-03-31 as follows:

Table 5-2: Emission reductions before and after the end of 2012

	Before 2012-12-31 [1)]	from 2013-01-01 [1)]	Sum
Emission reductions [tCO_{2e}]	2,533	0	2,533

[1)] Both days included

5.13. Comparison with ex-ante estimated emission reductions

During the monitoring period (2011-08-27 to 2012-03-31) the actual ER of the project is 2,533 tCO_2e, which is 39.14% lower than the estimated value as per registered GS PDD 4,162 tCO2e annually.

The calculated value was found to be lower than the ex-post determined value, thus no further justification was required.

5.14. Overall Aspects of the Verification

All necessary and requested documentation was provided by the project participants so that a complete verification of all relevant issues could be carried out.

Access was granted to all installations of the plant which are relevant for the project performance and the monitoring activities.

No issues have been identified indicating that the implementation of the project activity and the steps to claim emission reductions are not in compliance with the UNFCCC criteria and relevant guidance provided by the COP/CMP and the CDM EB (clarifications and/or guidance).

5.15. Hints for next periodic Verification

No Hints for next periodic Verification.

6. VERIFICATION AND CERTIFICATION STATEMENT

Innovative Carbon Investment Corporation has commissioned the TÜV NORD JI/CDM Certification Program to carry out the GS Pre-CDM VER verification of the project: "Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER", with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to the displacement of fossil-fuel based grid connected power generation. This verification covers the period from 2011-08-27 to 2012-03-31 (including both days).

In the course of the verification 0 Corrective Action Requests (CARs) and 0 Clarification Requests (CLs) were raised and successfully closed. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the registered PDD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AMS-I.D ver 17.0.
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the GS Pre-CDM VER verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **2,533** t CO_{2e}

Shanghai, 2013-09-24

Yu Miao

TÜV NORD JI/CDM Certification Program

Verification Team Leader

Essen, 2013-09-24

Dr. Jochen Schubert

TÜV NORD JI/CDM Certification Program

Final Approval

7. REFERENCES

Table 7-1: Documents provided by the project participant(s)

Reference	Document
/AEIA/	Approval of Environment Impact Assessment 1. Approval for Zhenjiang Phase I Project, issued by Zhenjiang City Environmental Protection Bureau, Ref. No.: Zhen Huan Shen [2010] 185, dated 2010-08-30 2. Approval for Zhenjiang Phase II Project, issued by Zhenjiang City Environmental Protection Bureau, Ref. No.: Zhen Huan Shen [2011] 89, dated 2011-05-18
/AFSR/	Approval of Feasibility Study: 1. Approval for Zhenjiang Phase I Project, issued by Jiangsu Province Development and Reform Commission, Ref. No.: Su Fa Gai Neng Yuan Fa [2010] 1373, dated 2010-10-14 2. Approval for Zhenjiang Phase II Project, issued by Jiangsu Province Development and Reform Commission, Ref. No.: Su Fa Gai Neng Yuan Fa [2011] 1003, dated 2011-06-30
/APO/	Approval of plant debugging operation issued by Jiangsu Province Power Company Zhenjiang Power Supply Company
/BL/	"Everbright Photovoltaic Energy (Zhenjiang) Limited" Business License, Operation time from 2010-09-07 until 2040-09-06, issued by Jiangsu Province Zhenjiang Commercial Administration Bureau.
/EAEP/	Examination and Acceptance of Environmental Protection for the Zhenjiang Phase I Project issued by the Zhenjiang City Environmental Protection Bureau on 2011-05-04, and Examination and Acceptance of Environmental Protection for the Zhenjiang Phase II Project issued by the Zhenjiang City Environmental Protection Bureau on 2012-11-14.
/CAL/	Meters calibration certificates covering the monitoring period 1. Calibration Report for M1, M2 and M3, issued by Metering Centre of Jiangsu Province Power Company Zhenjiang Power Supply Company, dated on 2011-03-17, valid to 2012-03-16, and dated on 2012-03-15, valid to 2013-03-14. 2. Certificate of Metering Centre of Jiangsu Province Power Company Zhenjiang Power Supply Company issued by Jiangsu Province Bureau of Quality and Technical Supervision, Certificate No.: (Su) Fa Ji (2008) 2011, dated 2008-10-09, valid to 2011-10-08; and Certificate No.: (Su) Fa Ji (2012) 2011, dated 2012-01-31, valid to 2015-01-30; 3. PT,CT Calibration Certificate

Reference	Document
/EIA/	Environment Impact Assessment: 1. EIA of Zhenjiang Phase I Project, issued by Jiangsu Province Environmental Science Research Institute, dated 2010-08-10 2. Construction Project Environmental Impact Assessment Qualification Certificate of Jiangsu Province Environmental Science Research Institute, Certificate No.: Guo Huan Ping Zheng Jia Zi Di 1902 Hao, issued by State Environmental Protection Administration, valid to 2010-12-24 3. EIA of Zhenjiang Phase II Project, issued by Beijing Zhong'an Zhihuan Technology Assessment Centre Co., Ltd., May 2011 4. Construction Project Environmental Impact Assessment Qualification Certificate of Beijing Zhong'an Zhihuan Technology Assessment Centre Co., Ltd, Certificate No.: Guo Huan Ping Zheng Yi Zi Di 1029 Hao, issued by State Environmental Protection Administration, valid to 2011-12-31
/INO/	Electricity Sales Invoice covering the monitoring period
/LOG/	Log of each sub-project • Power plant daily operation log. • Power plant daily dispatch log. • Maintenance plan and records. • Electric equipments operation records. • Duty shift records. • Hourly power generation statistics from DCS. • Daily power generation statistics from DCS. • Monthly power generation statistics from DCS.
/LP/	Labor payrolls
/MM/	Monitoring Manuals for the project site of each sub-project
/MR/	– Pre-CDM Monitoring Report of Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER, dated 2013-08-30, version 01 – Pre-CDM Monitoring Report of Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER, dated 2013-11-06, version 02 – Pre-CDM GS Sustainability Monitoring Report of Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER, dated 2013-08-30, version 01 – Pre-CDM GS Sustainability Monitoring Report of Everbright Zhenjiang Bundled Solar PV Power Generation Project_preCDM VER, dated 2013-11-06, version 02
/MMR/	1. Daily meter reading records 2. Monthly meter reading records

Reference	Document
/O&M/	Project Operation and Maintenance Records of each sub-project 1. Sample copy of O&M records 2. Solar PV power Operation Safety Management Regulations
/PHT/	Photographs of Project Site, Central Control Room, DCS System, all the meters and nameplate of the equipments of each sub-project.
/PPA/	Power Purchase Agreement signed between Jiangsu Province Power Company and Everbright Photovoltaic Energy (Zhenjiang) Limited on 2010-12-21
/PWD/	Power Wiring Diagrams of each sub-project
/QA/	Monitoring manual and QA/QC procedures of each sub-project
/TCR/	Project Responsibilities, Training and Competence Records of each sub-project 1. Project Organization Chart and responsibilities 2. The operation and maintenance regulations 3. Staff Training Records 4. Sample Copy of Operator Certificates 5. Internal audit record covering this monitoring period
/TS/	Technical Particulars of Solar PV cell and Inverter – the annex of equipment purchase contract of each sub-project
/XLS/	Emission Reduction Calculation sheets provided by the project participant(related to MR) dated 2013-04-01, version 01

Table 7-2: Background investigation and assessment documents

Reference	Document
/AMS-I.D/	AMS-I.D Ver.17.0: Grid connected renewable electricity generation
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/GLMP/	Guidelines for completing the monitoring report form (Version 03.2, EB70)
/GSR/	The Gold Standard Requirements Version 2.2
/GST/	The Gold Standard Toolkit Version 2.2
/IPCC/	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work

Reference	Document
	book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book
/JJG/	Verification regulation of electric watt-hour meters (JJG596-1999)
/KP/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)
/MRT/	Monitoring Report Form (F-CDM-MR) Version 03.1
/NS-METER/	DL/T 448-2000 technical administration code of electricity energy metering
/PDD/	– Project Design Document for CDM project: “Everbright Zhenjiang Bundled Solar PV Power Generation Project ” version 2, dated 2012-02-03 – GS Project Design Document for CDM project: “Everbright Zhenjiang Bundled Solar PV Power Generation Project ” version 1, dated 2013-05-10
/PS/	Project Standard (Version 04.0)
/VAL/	Validation Report for CDM project “Everbright Zhenjiang Bundled Solar PV Power Generation Project” dated 2012-03-22
/VVS/	UNFCCC Validation and Verification Standard (Version 03.0, EB 70, Annex 3)

Table 7-3: Websites used

Reference	Link	Organisation
/dna-HP/	www.cdm.ccchina.gov.cn	DNA of China
/dna-SP/	http://www.environmentagency.gov.uk/business/topics/pollution/129666.aspx	DNA of United Kingdom of Great Britain and Northern Ireland
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications
/mep/	http://www.zhb.gov.cn/	Ministry of Environmental Protection of China
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms	Chang Hua	Everbright Photovoltaic Energy (Zhenjiang) Limited / General Manager
/IM01/	V	☒ Mr. ☐ Ms	Li Jiayu	Everbright Photovoltaic Energy (Zhenjiang) Limited / Engineer
/IM01/	V	☐ Mr. ☒ Ms	Sun Ao	Hong Kong China Everbright International Limited Beijing Representative Office / Officer
/IM02/	V	☐ Mr. ☒ Ms	Yang Sui	Innovative Carbon Investment Corporation / Project Manager
/IM02/	V	☐ Mr. ☒ Ms	Liu Jingrui	Innovative Carbon Investment Corporation / Project Manager

[1)] Means of Interview: (**T**elephone, **E**-Mail, **V**isit)

ANNEX

A1: Verification Protocol

A2: Statements of Competence of involved Personnel

ANNEX 1: VERIFICATION PROTOCOL

Table A-1: GHG calculation procedures and management control testing / detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
Raw data generation				
• Installation of measuring equipment • Dysfunction of installed equipment • Maloperation by operational personnel • Downtimes of equipment • Exchange of equipment • Change of measurement equipment characteristic • Insufficient accuracy • Change of technology	• Installation of modern and state of the art equipment • Process control automation • Internal data review • Regular visual inspect-ions of installed equip-ment • Only skilled and trained personnel operates the relevant equipment • Daily raw data checks • Immediate exchange of dysfunctional equipment • Stand-by duty is	• Inadequate installation / operation of the monitoring equipment • Inadequate exchange of equipment • Change of personnel • Undetected measurement errors • Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies) • Non-application of management system procedures • Insufficient accuracy • Inappropriate QA/QC	• Site – visit • Check of equipment • Check of technical data sheets • Check of suppliers information / guarantees • Check of calibration records, if applicable • Check of maintenance records • Counter-check of raw data and commercial data • Check of CDM management system • Check of CDM related procedures	• **See Table A-2**

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
• Accuracy of values supplied by Third Parties	organized • Training • Internal audit procedures • Internal check of QA/QC measures of involved Third Parties	measures of Third Parties	• Application of CDM management system procedures • Check of trainings • Check of responsibilities • Check of QA/QC documentation / evidences of involved Third Parties	
Raw data collection and data aggregation				
• Wrong data transfer from raw data to daily and monthly aggregated reporting forms • IT Systems • Spread sheet programming • Manual data transmission • Data protection • Responsibilities	• Cross-check of data • Plausibility checks of various parameters. • Appropriate archiving system • Clear allocation of responsibilities • Application of CDM Management system procedures • Usage of standard software solutions	• Unintended usage of old data that has been revised • Incomplete documentation • Ex-post corrections of records • Ambiguous sources of information • Non-application of management system procedures • Manual data transfer mistakes	• Check of data aggregation steps • Counter-calculation • Data integrity checks by means of graphical data analysis and calculation of specific performance figures • Check of management system certification • Check of data archiving system	• **See Table A-2**

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
	(Spreadsheets) • Limited access to IT systems • Data protection procedures	• Unintended change of spread sheet programming or data base entries • Problems caused by updating/upgrading or change of applied software	• Check of application of Management system procedures	
Other calculation parameters				
• Emission factors, oxidation factors, coefficients	• The values and data sources applied are defined in the PDD and monitoring plan	• Unintended or intended Modification of calculation parameters • Wrong application of values • Misinterpretations of the applied methodology and/ or the PDD • Missing update of applicable regulatory framework (e.g. IPCC values)	• Update-check of regulatory framework • Countercheck of the applied MP in the MR against the methodology and the PDD	• **See Table A-2**
Calculation Methods				

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
• Applied formulae • Miscalculation • Mistakes in spread-sheet calculation	• Advanced calculation and reporting tools • A CDM coordinator is in charge of the CDM related calculations • Usage of tested / counterchecked Excel spreadsheets • Involvement of external consultants	• The danger of miscal-culation can only be minimized.	• Countercheck on the basis of own calculation. • Spread sheet walk-trough. • Plausibility checks • Check of plots	• **See Table A-2**
Monitoring reporting				
• Data transfer to the author of the monitoring report • Data transfer to the monitoring report • Unintended use of outdated versions	• An experienced CDM consultant is responsible for monitoring reporting. • CDM QMS procedures are defined	• The danger of data transfer mistakes can only be minimized • Inappropriate application of QMS procedures	• Counter check with evidences provided. • Audit of procedure application	• **See Table A-2**

Table A-2: (Project specific) Periodic Verification Checklist

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
A. Description of the project activity				
A.1. Purpose and general description of the project activity ***(EB 70, Annex 11, A.1)*** *Check if section A.1 of the MR includes the following:* - *Purpose of the PA and the measures taken to reduce GHG emissions* - *Brief description of the installed technology and equipment* - *Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc.)* - *Total emission reductions achieved in this monitoring period*	/MR/	The verification team has checked section A.1 of the MR and confirms that the information provided is complete and correct with regards to the following: ☒ Purpose of the PA and the measures taken to reduce GHG emissions ☒ Brief description of the installed technology and equipments ☒ Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc ☒ Total emission reductions achieved in this monitoring period In this context the following findings have been identified: N/A	OK	OK
A.2. Location of project activity ***(EB 70, Annex 11, A.2)*** *Check if section A.2 of the MR reflects correctly the following:* - *Host Party(ies)* - *Region / State / Province etc.* - *City / Town / Community etc.*	/MR/ /PDD/ /IM01/	The verification team has checked section A.2 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following: ☒ Host Party(ies) ☒ Region / State / Province ☒ City / Town / Community	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
- *Physical / geographical location (e.g. Latitude and Longitude)*		☒ Physical / Geographical location In this context the following findings have been identified: N/A		
A.3. Parties and Project Participants ***(EB 70, Annex 11, A.3)*** *Check if section A.3 of the MR includes the following:* - *All PPs as displayed on the UNFCCC website* - *A correctly filled table as per the MR template*	/MR/ /unfccc/	The verification team has checked section A.3 of the MR as well as the UNFCCC website and confirms that: ☒ all PPs as displayed on the project related UNFCCC website are correctly listed ☒ the table as per the template MR has been correctly filled In this context the following findings have been identified: N/A	OK	OK
A.4. Reference of applied methodology ***(EB 70, Annex 11, A.4)*** *Check if section A.4 of the MR correctly describes / includes the following:* - *Reference to the applicable version of the methodology* - *Reference to the applicable version(s) of relevant methodological tools* - *Relevant EB decisions, if applicable*	/MR/ /PDD/ /unfccc/	The verification team has checked section A.4 of the MR and confirms by means of comparison with the information given in the PDD and displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: ☒ Number, title and version of the applicable CDM Methodology ☒ Name and version of applicable CDM methodological tools ☒ Relevant EB decisions In this context the following findings have been identified:	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		N/A		
A.5. Crediting period of project activity ***(EB 70, Annex 11, A.5)*** *Check if section A.5 of the MR correctly includes the following:* - *Start date of the crediting period. In this context please check, if applicable, whether post registration changes to the start date have been accepted by the EB.* - *Length and type of the crediting period*	/MR/ /unfccc/	The verification team has checked section A.5 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: ☒ Start date of the crediting period. ☒ Type and length of the crediting period In this context the following findings have been identified: N/A	OK	OK
A.6. Publication of the Monitoring Report ***(EB70, Annex 3, § 207)*** *Check if the monitoring report has been made publicly available on the UNFCCC website before the verification commenced.* *Check if comments have been received and if yes, how they have been addressed.*	/unfccc/	The verification team has ensured and confirms by means of checking the respective project information on the UNFCCC website that: ☒ The draft monitoring report, as received from the project participants, has been made publicly available prior to the start of the verification activities. ☒ No comments have been received. In this context the following findings have been identified: N/A	OK	OK
A.7. Compliance with standardized format of the Monitoring Report	/MRT/	The verification team has checked all sections of the MR and confirms by means of comparison with the MR template that:	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
(EB70, Annex 3, § 212 e) *Check (only) if the latest applicable MR template has been used.For compliance assessment with the MR guideline pl. refer to the respective MR sections.*		☒ the standardized MR template has been used In this context the following findings have been identified: N/A		
B. Implementation of project activity				
B.1. Description of implemented registered project activity ***(EB 70, Annex 11, B.1)*** *Check if section B.1 of the MR correctly describes / includes the following:* - *Implementation status of the PA* - *Detailed description of installed technology(ies) / technical processes and equipment applied* - *Diagrams (where appropriate)*	/MR/ /PDD/ /PS/ /IM01/	The verification team has checked section B.1 of the MR and confirms by means of comparison with the information given in the PDD, the project standard and information gathered during the site visit that: ☒ the description of the implementation status of the PA is in line with the applicable provisions of the project standard ☒ an appropriate description of the installed technology(ies), technical process and equipment incl.diagrams, where applicable, has been included In this context the following findings have been identified:	OK	OK
B.1.1. Initial project implementation ***(EB70, Annex 3; § 225 a, 226)*** *Assess whether the project has been implemented and operated as per the registered PDD and are all physical features of the project in place?* *Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.* *Check if the project is still in compliance with the*	/PDD/ /APO/ /PPA/ /TS/ /INO/	*Description:* The project phase I started fully operation on 2010-12-23. The project phase II started fully operation on 2011-12-22. The project involves the installation solar cell module, providing a total capacity of 13.3MW (3.5MW+9.8MW). The electricity generated is delivered to East China Power Grid (ECPG). *Verifier´s action:* By means of on-site observation, interview and cross checking the PDD, the construction and equipment contracts and project information on UNFCCC website.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
applicability conditions of the methodology. *Also, discuss – if applicable – the necessity of PRC notifications / approvals.*		*Conclusion:* The project has been implemented and operated as per the registered PDD and all physical features of the project are in place.		
B.1.2. Technical equipment changes ***(EB70, Annex 3; § 225 a, 226)*** *Check if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period. Further ensure that consistent notations of key equipment (meters etc.) in PDD, MR and calculation spreadsheet are applied* *Consider e.g. interviews with operational personnel, QMS records, maintenance records, instrument specifications.* *In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission reduction calculation.* *In case of post registration changes pl. refer to chapter B.2.*	/IM01/ /TS/ /PG/ /PDD/ /MR/ /LOG/	*Description:* The solar cell modules and inverters are installed at the project site. The grid connection is in line with the registered PDD. The key parameters of the main equipment are listed in Table B-1 of the report. *Verifier´s action:* By means of cross checking the technical specifications of the key equipments against PDD and MR and information published on the UNFCCC website, and further evidenced by on-site interview and observation. *Conclusion:* No exchange or modification of technical equipment has been detected during the monitoring period.	OK	OK
B.1.3. Operation of the project activity ***(EB70, Annex 3; § 225 a, 226)*** *Check if relevant operation modes of the project activity have been exchanged or modified during the monitoring period.*	/IM01/ /PDD/ /LOG/	*Description:* The operation modes, i.e. power generation, transmission, connection and supply are in line with the modes described in the registered PDD. *Verifier´s action:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
Consider e.g. interviews with operational personnel, operation log sheets, data management system records. *In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission reduction calculation.* *In case of post registration changes pl. refer to chapter B.2.*		It was verified by means of random sampling and cross check with operation log sheets, data management system records covering this monitoring period and cross evidenced by on-site operator interview. *Conclusion:* No modification and exchanges on operation modes were detected during this monitoring period.		
B.1.4. Incidents ***(EB70, Annex 3; § 225 a, 226)*** *Identify if there have been any significant incidents, deviant operation modes and / or downtimes of the equipment?* *Consider e.g. interviews with operational personnel, operational log sheets, analysis of performance data.*	/IM01/ /LOG/	*Description:* No significant incidents deviant operation modes and further downtimes of the equipment have occurred. *Verifier´s action:* It was verified by means of site observation, the plant operation logs check, equipments check & maintenance log check. An interview has also been undertaken with the plant operators. *Conclusion:* Incidents during the monitoring period have not been observed.	OK	OK
B.1.5. Legislation Find out – esp. in the context of methodological requirements - whether relevant legislation with effect on the project activity in the host country has been changed. Assess, in case of changes, whether consequences for the PA with regard to relevant CDM requirements	/IM01/ /dna/ /mep/	*Description:* Relevant changes incl. electricity generation and transmission, related environmental protection laws, sectoral policies and relevant regulations did not change. *Verifier´s action:* It was verified through consulting official governmental website	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
have been accounted for. In case of changes data sources shall be referenced.		and as per the local and sectoral expertise of the verification team. *Conclusion:* No relevant changes since the validation were identified.		
B.1.6. Open issues from validation ***-(EB70, Annex 3; § 213)*** *Check (esp. in case of 1st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR)?*	/VAL/	☒ There were no open issues addressed in the validation report ☐ All open issues from the validation have been appropriately addressed. ☐ The following issues related to the validation have not yet been appropriately addressed:	OK	OK
B.1.7. Open issues from previous verification ***-(EB70, Annex 3; §§ 213; 284 h)*** *Check in case of further periodic verifications whether there are any open issues indicated in previous verification reports (FAR) and take into consideration the guidance as specified in VVS.*	/VER/	☒ There were no open issues addressed in the previous verification report ☐ All open issues from the previous verification have been appropriately addressed. ☐ The following issues related to the previous verification have not yet been appropriately addressed:	OK	OK
B.2. Post registration changes				
B.2.1. Are post registration changes applicable to the proposed project activity?	/IM01/ /PDD/	☒ No, by means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology. (Please proceed with section C)	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		☐ Yes, post registration changes have been identified and are assessed in detail in the subsequent steps. (Please proceed with B.2.2.)		
B.2.2. Temporary deviations from the registered monitoring plan or applied methodology (TDfrMP; TDfMM) ***(EB 70, Annex 11, B.2.1; EB70, Annex 3; §§ 251 - 256)*** *Indicate whether any temporary deviations have been applied during this monitoring periods.* *In cases where approval has been sought from the EB please provide reference.* *If applied, provide a description of the deviation(s).* *This should include the reasons for the deviation(s), how it deviates from the monitoring plan and/or applied methodology(ies), the duration for which the deviation(s) is(are) applicable and justification on the conservativeness of the approach. Indicate if the deviation will lead to a reduction in the accuracy and if so, which conservative assumptions and discount factors have been applied.* *For deviation(s) that require prior approval by the Board, include the date of approval and reference number.*	/PS/ /unfccc/	☒ No TDfrMP or TDfMM.have been submitted to the UNFCCC prior to the current monitoring period ☐ The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC 1 Title Status ☐ under approval; ☐ approved Appr.date Ref. No. 2 Title Status ☐ under approval; ☐ approved Appr.date Ref.No. ☒ During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA ☐ An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		☐ 1 Issue: ; 2 Issue: ; ☐ The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied: 1 Issue: ; 2 Issue: *In cases of approved TDfrMP or TDfM the EB guidance has been applied as follows:* *Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:* In this context the following findings have been identified: N/A		
B.2.3. Corrections ***(EB 70, Annex 11, B.2.2; EB70, Annex 3; §§ 257 - 259)*** *Indicate whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report.*	/PS/ /unfccc/	☒ During the verification of the current MP no need for corrections has been identified. ☐ The following corrections have been applied: 1 Issue:	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
In cases where the correction(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD. *Please check and report that the corrected information is an accurate reflection of the actual project information and that the corrected parameters are in accordance with the applied methodology and the monitoring plan.*		☐ 2 Issue: *Detailed description and justification each correction:* In this context the following findings have been identified: N/A		
B.2.4. Permanent changes from the registered monitoring plan or applied methodology (PCfrMP; PCfMM) ***(EB 70, Annex 11, B.2.3; EB70, Annex 3; §§ 262 - 268)*** *Indicate whether any permanent changes from the registered monitoring plan or applied methodologies have been approved during this monitoring period or submitted with this monitoring report.* *In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.*	/PS/ /unfccc/	☒ No PCfrMP or PCfMM.have been submitted to the UNFCCC prior to the current monitoring period ☐ The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC 1 Title Status ☐ under approval; ☐ approved Appr.date Ref. No. 2 Title Status ☐ under approval; ☐ approved Appr.date	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.

		Ref.No.	
☒	During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
☐	An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
☐	The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

In cases of approved PCfrMP or PCfMM *the EB guidance has been applied as follows:*

Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:

In this context the following findings have been identified:

N/A

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
B.2.5. Changes to the project design of the registered project activity (CoPD) ***(EB 70, Annex 11, B.2.4; EB70, Annex 3; §§ 269 - 282)*** *Indicate whether any changes to the project design of the project activity have been approved during this monitoring period or submitted with this monitoring report.* *In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.*	/PS/ /unfccc/	☒ No CoPD has been submitted to the UNFCCC prior to the current monitoring period ☐ The following CoPD has been approved or are under approval by the UNFCCC 1 Title: Status: ☐ under approval; ☐ approved Appr.date: Ref. No.: 2 Title: Status: ☐ under approval; ☐ approved Appr.date: Ref.No.: ☒ During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA ☐ An approval of the following CoPD.is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply. 1 Issue: 2 Issue:	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		☐ The following CoPD for which appendix 1 of the PS is applicable have been applied: 1 Issue: 2 Issue: *In cases of approved CoPD the EB guidance has been applied as follows:* *Detailed description and justification each CoPD for which appendix 1 of the CDM Project Standard is applicable:* In this context the following findings have been identified: N/A		
C. Description of monitoring system				
C.1. Monitoring Plan – PDD Compliance ***(EB 70 Annex 3, §§ 233-236)*** *Check if the monitoring plan is in accordance with the monitoring plan contained in the registered PDD (or any accepted revised MP).* *Please check esp. if* - *all parameters stated in the MP of the registered PDD have been monitored and updated as*	/MR/ /PDD/ /IM01/ /PG/	By means of comparison of the MR with the registered PDD (or any revisions thereof) the verification team has checked whether the MP is in compliance with the registered PDD. The outcome is as follows: ☒ The MP is completely in accordance with the last registered/approved version of the PDD / MP. In this context the following findings have been identified:	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
applicable - *the monitoring equipment has been controlled and calibrated as per the MP* - *the monitoring results are consistently recorded as per the approved frequency* - *QA/QC procedures have been applied in accordance with the MP*		N/A		
C.2. Monitoring Plan – Meth Compliance ***(EB 70 Annex 3, §§ 229-232)*** *Check if the monitoring plan is in accordance with the applied methodology.* *In case the methodology references applicable tools it has to be ensured that the MP is also compliant with those tools.* *Also please specify if monitoring aspects have been identified that are not specified in the methodology but may encance the level of accuracy and completeness of the monitoring plan – this esp. applies for SSC PAs.*	/MR/ /PDD/ /AMS-I.D/	By means of comparison of the MR with the applied CDM methodology and related tools the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology. The outcome is as follows: ☒ The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD) ☒ The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows: 1 Title (of the tool): Tool to calculate baseline, project and/or leakage emissions from electricity consumption Version: 02.2 MP compliance: ☐ full compliance ☐ findings have been raised	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		☐ ☐ ☐ ☒ N/A (for MP) In this context the following findings have been identified: Regarding aspects that are not specified in the methodology the following issues have been identified which may enhance the level of accuracy and completeness of the MP: N/A		
C.3. Management System ***(EB 70 Annex 3, § 217 (iii))*** *Check if the GHG data monitoring system can be assessed as appropriate.* *In case reference is made to a (certified) company quality management system, check if all CDM related monitoring procedures have been fully integrated in the project participant's quality management system.* *In case of a stand-alone system, check how the GHG management system has been implemented and effectiveness is ensured.*	/LOG/ /PTR/ /IM01/ /IM02/	*Description:* The project is not integrated in any quality management system of the plant. The project owner set up a QA/QC procedure to ensure the daily operation and maintenance log meets the requirement of CDM. All applicable procedures within the GHG monitoring system have been summarized in relevant QC/QA procedures, which address the processes for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance. Furthermore an experienced CDM consulting company has been contracted by the PP in order to heighten the quality monitoring process. *Verifier´s action:* The responsible person of the CDM monitoring has been interviewed onsite and operation and maintenance log has been checked. The QA procedures were checked by the verification team during on site visit. *Conclusion:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		The GHG management system has been implemented.		
C.4. Metering diagram ***(EB 70, Annex 11, C; EB 70 Annex 2 §193)*** *Check first if the MR includes a metering diagram showing all relevant monitoring points.* *Check further if this diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.*	/PS/ /MR/ /IM01/ /PG/	*Description:* The metering diagram included in the MR shows all actual relevant monitoring points. *Verifier´s action:* The MR has been verified against on-site observation and interview with project operators. *Conclusion:* The MR includes a metering diagram showing all relevant monitoring points which reflects the actual situation and is in line with the registered PDD and applied methodology.	OK	OK
C.5. Roles and Responsibilities ***(EB 70, Annex 11, C; EB 70 Annex 2 §193)*** *Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan. Please consider the complete data trail from raw data generation to submission of the final data.* *Identify, if relevant personnel w.r.t. monitoring has been exchanged?* *If so, have appropriate training measures been carried out.* *In case of changes, assure that the implemented monitoring procedures have not been affected.*	/PS/ /MR/ /IM01/ /IM02/ /PTR/ /LOG/	*Description:* Responsibilities for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel have been introduced. All appointed persons involved are duly qualified for the task assigned. Furthermore, an experienced consultancy company i.e. China National Water Resources & Electric Power Materials & Equipment Co.,Ltd has been contracted by the project participants in order to enable a high quality monitoring process. *Verifier´s action:* By means of onsite interview and documents check, like certificates of operation staff. *Conclusion:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		Only duly qualified personnel are involved in the monitoring procedures. Roles and positions are clearly defined.		
C.6. Emergency procedures for the monitoring system ***(EB 70 Annex 11, C; EB 70 Annex 2 §193)*** *Check, as appropriate, whether relevant emergency procedures for the monitoring system have been included in the MR and assess whether these procedures have been implemented, when required*	/IM01/ /LOG/	*Description:* Emergency procedures for CDM purposes are in this case considered as essential part of ordinary plant operations. *Verifier´s action:* The project operation records have been checked and responsible staff has been interviewed. *Conclusion:* The relevant emergency procedures for the monitoring system have been included in the MR and assess as appropriate.	OK	OK
C.7. Data archive and data protection ***(EB 70 Annex 2 §56 b)*** Check whether all records of monitoring parameters are archived according to the monitoring plan. Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data.	/IM01/ /LOG/ /PDD/ /INO/	*Description:* All relevant monitoring data was available and procedures are in place so that relevant monitoring data will be retained at least 2 years after the end of the current crediting period. The monthly record was cross checked by ETNs at the end of every month. The danger of unintended or intended data manipulation can be considered as low, since: 1. The meters were calibrated by a qualified third party;. 2. The measured data will be cross checked by the monthly electricity inovices. 3. The meter records can be remotely read by the grid company while it is also recorded by the project owner.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		Verifier´s action: The records of the monitoring data have been checked. The operational daily log, daily and monthly electricity record, monthly receipts and electricity transaction notes are checked. *Conclusion:* All records of monitoring parameters are archived according to the monitoring plan. Appropriate measures in the description have been taken in order to avoid unintended or intended manipulation of the measured data.		
D. Data and parameters				
D.1. Data and Parameters fixed ex ante				
a) Compliance with registered PDD ***(EB 70 Annex 11; D1)*** *Check whether the value applied is in compliance with the registered PDD.*	/MR/ /XLS/ /PDD/	*Description:* The value of ex-ante $EF_{CM,grid,y}$ is inconsistent with the value in the registered PDD. *Verifier´s action:* The MR and the ER calculation spreadsheet were checked against the registered PDD. *Conclusion:* The value applied is in compliance with the registered PDD.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
b) Compliance with the applied methodology ***(EB 70 Annex 11; D1)*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/MR/ /XLS/ /PDD/ /AMS-I.D/	*Description:* According to the applied methodology, it is applicable to use the ex-ante determined emission factor for ex-post ER calculation for this crediting period. *Verifier´s action:* The applied methodology was checked. *Conclusion:* It is in compliance with the applied methodology.	OK	OK
D.2. Data and Parameters monitored				
D.2.1. $EG_{facility,y,Zhenjiang\ phase\ I}$		**Description: Quantity of net electricity supplied to the grid by Zhenjiang phase I project in year y**		
a) Measurement / Determination method ***(EB 70 Annex 3, §§ 233, 236)*** *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/IM01/ /PDD/ /AMS-I.D/ /PG/ /LOG/	*Description:* The parameter is calculated by applying: $EG_{facility,y,Zhenjiang\ phase\ I} = EG_{ex,y,Zhenjiang\ phase\ I} - EG_{in,y,Zhenjiang\ phase\ I}$ /MP/. *Verifier´s action:* This was verified by conducting on-site interviews and observations and by cross checking with registered PDD and applied methodology against the ER calculation spreadsheet. *Conclusion:* The measurement of this monitoring parameter is in line with the registered monitoring plan and applied methodology.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
b) Accuracy and QA/QC Procedure ***(EB 70 Annex 3, §§ 237-241)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.* *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*	/CAL/ /LOG/ /PDD/ /PTR/ /MM/	*Description:* The value is calculated. *Verifier´s action:* The PDD, ER calculation spreadsheet and MR have been checked. *Conclusion:* The applicable QA/AC procedures are met and the calibration of meters has been carried out in line with the EB guidance.	OK	OK
c) Correctness ***(EB 70 Annex 3, §§ 233, 236)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/ /LOG/ /XLS/	☐ Correct ☒ Not correct (initial assessment) *Description:* The parameter is calculated by applying: $EG_{facility,y,Zhenjiang\ phase\ I} = EG_{ex,y,Zhenjiang\ phase\ I} - EG_{in,y,Zhenjiang\ phase\ I}$ /MP/. *Verifier´s action:* The ER calculation spreadsheet was checked against the MR. *Conclusion:* The value given in the monitoring report is verified as correct.	OK	OK
D.2.2. $EG_{ex,y,Zhenjiang\ phase\ I}$		**Description: Electricity supplied to the grid by Zhenjiang**		

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		phase I project in year y		
a) Measurement / Determination method ***(EB 70 Annex 3, §§ 233, 236)*** *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/IM01/ /PDD/ /AMS-I.D/ /MMR/ /CAL/ /LOG/ /INO/	*Description:* $EG_{ex,y,Zhenjiang\ phase\ I}$ is measured continuously by Main Meter M1. The Grid Company and the project owner read the Main Meters jointly, and record the data at 24:00 h on the last day of every month. After confirming the electricity quantity, the project owner provides sales invoices to the grid company for the settlement of the electricity revenue/INO/. Neither mistakes nor malfunction of main meter have been observed during this monitoring period. The data aggregation procedure applied by the PP is shown as follow: 1. The $EG_{ex,y,Zhenjiang\ phase\ I}$ is monitored by Meter M1, the operators read the value from the Meter M1 at 24:00 per day. Based on the difference between the two meter values on 0:00 (24:00 of yesterday) and 24:00 for that day the power supplied for that day is determined. Accordingly the operator issues the daily reports. The daily reports record the quantities of gross power supplied per day (DAL-2=ODL). 2. Based on the daily reports for a month, the PP issues a corresponding monthly report. The sum of the quantities of gross power supplied per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). *Verifier´s action:* It was verified by on-site interview and observations and cross checking with calibration records, record of change meter,	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		registered GS PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on monthly reports and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. 100% of the daily and monthly reports have been verified. The values have been crosscheck with electricity sales invoices. *Conclusion:* The measurement method is in line with the registered GS PDD and the applied methodology AMS-I.D version 17.0.		
b) Accuracy and QA/QC Procedure ***(EB 70 Annex 3, §§ 237-241)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.* *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the*	/CAL/ /LOG/ /PTR/ /MM/ /MR/ /MMR/ /O&M/ /INO/	*Description:* Meter M1 have an accuracy of 0.5s. The calibration of M1 was performed yearly by a qualified 3rd party entity according to national industry standard /CAL/ and records maintained. QA/QC procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site verification. In case the main meter is out of order the backup meter readings will be applied.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
monitoring equipment has been carried out in line with the latest EB guidance.		QA/QC procedure for check the electricity supply was done by the internal audit of the project. *Verifier´s action:* It was verified by cross checking the monthly power invoices, clarification by the grid company, meter readings and calibration records against the MR, Internal audit record and ER sheet against the MR. *Conclusion:* The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan. And the relevant QA/QC procedure has been met.		
c) Correctness ***(EB 70 Annex 3, §§ 233, 236)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/ /LOG/ /XLS/ /MMR/ /INO/	☒ Correct ☐ Not correct (initial assessment) *Description:* The power supplied to the grid by the Project Zhenjiang phase I ($EG_{ex,y,Zhenjiang\ phase\ I}$) during period 2012-04-01 to 2013-03-31 is reported in the MR based on the monthly reports. The sales invoices were used as cross-check. *Verifier´s action:* By means of checking the ER-spreadsheet against the monthly invoices, monthly power balance sheets confirmed by grid company and meter reading records, the internal audit record and daily log. *Conclusion:* The correctness is confirmed.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
D.2.3. $EG_{in,y,Zhenjiang\ phase\ I}$		**Description: Electricity consumed by Zhenjiang phase I project importing from the grid in year y**		
a) Measurement / Determination method ***(EB 70 Annex 3, §§ 233, 236)*** *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/IM01/ /PDD/ /AMS-I.D/ /MMR/ /CAL/ /LOG/ /INO/	*Description:* ***$EG_{in,y,Zhenjiang\ phase\ I}$*** is measured continuously by Main Meter M1. The Grid Company and the project owner read the Main Meters jointly, and record the data at 24:00 h on the last day of every month. After confirming the electricity quantity, the project owner provides sales invoices to the grid company for the settlement of the electricity revenue[/INO/]. Neither mistakes nor malfunction of main meter have been observed during this monitoring period. The data aggregation procedure applied by the PP is shown as follow: 1. The ***$EG_{in,y,Zhenjiang\ phase\ I}$*** is monitored by Meter M1, the operators read the value from the Meter M1 at 24:00 per day. Based on the difference between the two meter values on 0:00 (24:00 of yesterday) and 24:00 for that day the power supplied for that day is determined. Accordingly the operator issues the daily reports. The daily reports record the quantities of gross power supplied per day (DAL-2=ODL). 2. Based on the daily reports for a month, the PP issues a corresponding monthly report. The sum of the quantities of gross power supplied per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). *Verifier´s action:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		It was verified by on-site interview and observations and cross checking with calibration records, record of change meter, registered GS PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on monthly reports and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. 100% of the daily and monthly reports have been verified. The values have been crosscheck with electricity sales invoices. *Conclusion:* The measurement method is in line with the registered GS PDD and the applied methodology AMS-I.D version 17.0.		
b) Accuracy and QA/QC Procedure ***(EB 70 Annex 3, §§ 237-241)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.*	/CAL/ /LOG/ /PTR/ /MM/ /MR/ /MMR/ /O&M/	*Description:* Meter M1 have an accuracy of 0.5s. The calibration of M1 was performed yearly by a qualified 3rd party entity according to national industry standard /CAL/ and records maintained. QA/QC procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.	/INO/	verification. In case the main meter is out of order the backup meter readings will be applied. QA/QC procedure for check the electricity supply was done by the internal audit of the project. *Verifier´s action:* It was verified by cross checking the monthly power invoices, clarification by the grid company, meter readings and calibration records against the MR, Internal audit record and ER sheet against the MR. *Conclusion:* The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan. And the relevant QA/QC procedure has been met.		
c) Correctness ***(EB 70 Annex 3, §§ 233, 236)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/ /LOG/ /XLS/ /MMR/ /INO/	☒ Correct ☐ Not correct (initial assessment) *Description:* The power supplied to the grid by the Project Zhenjiang phase I ($EG_{in,y,Zhenjiang\ phase\ I}$) during period 2012-04-01 to 2013-03-31 is reported in the MR based on the monthly reports. The sales invoices were used as cross-check. *Verifier´s action:* By means of checking the ER-spreadsheet against the monthly invoices, monthly power balance sheets confirmed by grid company and meter reading records, the internal audit record and daily log. *Conclusion:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		The correctness is confirmed.		
D.2.4. $EG_{facility,y,Zhenjiang\ phase\ II}$		**Description: Quantity of net electricity supplied to the grid by Zhenjiang phase II project in year y**		
a) Measurement / Determination method ***(EB 70 Annex 3, §§ 233, 236)*** *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/IM01/ /PDD/ /AMS-I.D/ /PG/ /CAL/ /LOG/	*Description:* $EG_{facility,y,Zhenjiang\ phase\ II} = EG_{ex,y,Zhenjiang\ phase\ II} - EG_{in,y,Zhenjiang\ phase\ II}$ /MP/. *Verifier´s action:* This was verified by conducting on-site interviews and observations and by cross checking with registered PDD and applied methodology against the ER calculation spreadsheet. *Conclusion:* The measurement of this monitoring parameter is in line with the registered monitoring plan and applied methodology.	OK	OK
b) Accuracy and QA/QC Procedure ***(EB 70 Annex 3, §§ 237-241)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.* *Describe whether all applicable QA/QC procedures*	/CAL/ /LOG/ /PDD/	*Description:* The value is calculated. *Verifier´s action:* The PDD, ER calculation spreadsheet and MR have been checked. *Conclusion:* The applicable QA/AC procedures are met and the calibration of meters has been carried out in line with the EB guidance.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.	/PTR/ /MM/			
c) Correctness ***(EB 70 Annex 3, §§ 233, 236)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/ /LOG/ /XLS/	☒ Correct ☐ Not correct (initial assessment) *Description:* The value is listed in section E.1. of the MR with sum and monthly value. *Verifier´s action:* By means of checking the ER spreadsheet against the receipts, monthly invoices confirmed by grid company and meter reading records. *Conclusion:* The value given in the monitoring report is verified as correct.	OK	OK
D.2.5. $EG_{ex,y,Zhenjiang\ phase\ II}$		**Description: Electricity supplied to the grid by Zhenjiang phase II project in year y**		
a) Measurement / Determination method ***(EB 70 Annex 3, §§ 233, 236)*** *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the*	/IM01/ /PDD/ /AMS-I.D/ /MMR/ /CAL/ /LOG/	*Description:* ***$EG_{ex,y,Zhenjiang\ phase\ II}$*** is measured continuously by Main Meter M2 and M3. The Grid Company and the project owner read the Main Meters jointly, and record the data at 24:00 h on the last day of every month. After confirming the electricity quantity, the project owner provides sales invoices to the grid company for the settlement of the electricity revenue/INO/. Neither mistakes nor malfunction of main meter have been observed during this monitoring period. The data aggregation procedure applied by the PP is shown as follow:	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
frequency of measurements as per the requirements. *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/INO/	1. The $EG_{ex,y,Zhenjiang\ phase\ II}$ is monitored by Meter M2 and M3, the operators read the value from the Meter M2 and M3 at 24:00 per day. Based on the difference between the two meter values on 0:00 (24:00 of yesterday) and 24:00 for that day the power supplied for that day is determined. Accordingly the operator issues the daily reports. The daily reports record the quantities of gross power supplied per day (DAL-2=ODL). 2. Based on the daily reports for a month, the PP issues a corresponding monthly report. The sum of the quantities of gross power supplied per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). *Verifier´s action:* It was verified by on-site interview and observations and cross checking with calibration records, record of change meter, registered GS PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on monthly reports and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. 100% of the daily and monthly reports have		

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		been verified. The values have been crosscheck with electricity sales invoices. *Conclusion:* The measurement method is in line with the registered GS PDD and the applied methodology AMS-I.D version 17.0.		
b) Accuracy and QA/QC Procedure ***(EB 70 Annex 3, §§ 237-241)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.* *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*	/CAL/ /LOG/ /PTR/ /MM/ /MR/ /MMR/ /O&M/ /INO/	*Description:* Meter M2 and M3 have an accuracy of 0.5s. The calibrations of M2 and M3 were performed yearly by a qualified 3rd party entity according to national industry standard /CAL/ and records maintained. QA/QC procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site verification. In case the main meter is out of order the backup meter readings will be applied. QA/QC procedure for check the electricity supply was done by the internal audit of the project. *Verifier´s action:* It was verified by cross checking the monthly power invoices, clarification by the grid company, meter readings and calibration records against the MR, Internal audit record and ER sheet against the MR. *Conclusion:* The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		And the relevant QA/QC procedure has been met.		
c) Correctness ***(EB 70 Annex 3, §§ 233, 236)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/ /LOG/ /XLS/ /MMR/ /INO/	☒ Correct ☐ Not correct (initial assessment) *Description:* The power supplied to the grid by the Project Zhenjiang phase II ($EG_{ex,y,Zhenjiang\ phase\ II}$) during period 2012-04-01 to 2013-03-31 is reported in the MR based on the monthly reports. The sales invoices were used as cross-check. *Verifier´s action:* By means of checking the ER-spreadsheet against the monthly invoices, monthly power balance sheets confirmed by grid company and meter reading records, the internal audit record and daily log. *Conclusion:* The correctness is confirmed.	OK	OK
D.2.6. $EG_{in,y,Zhenjiang\ phase\ II}$		**Description: Electricity consumed by Zhenjiang phase II project importing from the grid in year y**		
a) Measurement / Determination method ***(EB 70 Annex 3, §§ 233, 236)*** *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the*	/IM01/ /PDD/ /AMS-I.D/ /MMR/ /CAL/ /LOG/	*Description:* $EG_{in,y,Zhenjiang\ phase\ II}$ is measured continuously by Main Meter M2 and M3. The Grid Company and the project owner read the Main Meters jointly, and record the data at 24:00 h on the last day of every month. After confirming the electricity quantity, the project owner provides sales invoices to the grid company for the settlement of the electricity revenue/INO/. Neither mistakes nor malfunction of main meter have been observed during this monitoring period. The data aggregation procedure applied by the PP is shown as	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
frequency of measurements as per the requirements. *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/INO/	follow: 4. The $EG_{in,y,Zhenjiang\ phase\ II}$ is monitored by Meter M2 and M3, the operators read the value from the Meter M2 and M3 at 24:00 per day. Based on the difference between the two meter values on 0:00 (24:00 of yesterday) and 24:00 for that day the power supplied for that day is determined. Accordingly the operator issues the daily reports. The daily reports record the quantities of gross power supplied per day (DAL-2=ODL). 5. Based on the daily reports for a month, the PP issues a corresponding monthly report. The sum of the quantities of gross power supplied per day is the final result as shown in the monthly report (DAL-1). 6. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). *Verifier´s action:* It was verified by on-site interview and observations and cross checking with calibration records, record of change meter, registered GS PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on monthly reports and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation		

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		provided by the PP. 100% of the daily and monthly reports have been verified. The values have been crosscheck with electricity sales invoices. *Conclusion:* The measurement method is in line with the registered GS PDD and the applied methodology AMS-I.D version 17.0.		
b) Accuracy and QA/QC Procedure ***(EB 70 Annex 3, §§ 237-241)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.* *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*	/CAL/ /LOG/ /PTR/ /MM/ /MR/ /MMR/ /O&M/ /INO/	*Description:* Meter M2 and M3 have an accuracy of 0.5s. The calibration of M2 and M3 was performed yearly by a qualified 3rd party entity according to national industry standard /CAL/ and records maintained. QA/QC procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site verification. In case the main meter is out of order the backup meter readings will be applied. QA/QC procedure for check the electricity supply was done by the internal audit of the project. *Verifier´s action:* It was verified by cross checking the monthly power invoices, clarification by the grid company, meter readings and calibration records against the MR, Internal audit record and ER sheet against the MR. *Conclusion:* The accuracy of equipment used for monitoring is checked as	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		controlled and calibrated in accordance with the monitoring plan. And the relevant QA/QC procedure has been met.		
c) Correctness ***(EB 70 Annex 3, §§ 233, 236)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/ /LOG/ /XLS/ /MMR/ /INO/	☒ Correct ☐ Not correct (initial assessment) *Description:* The power supplied to the grid by the Project Zhenjiang phase II (***$EG_{in,y,Zhenjiang\ phase\ II}$***) during period 2012-04-01 to 2013-03-31 is reported in the MR based on the monthly reports. The sales invoices were used as cross-check. *Verifier´s action:* By means of checking the ER-spreadsheet against the monthly invoices, monthly power balance sheets confirmed by grid company and meter reading records, the internal audit record and daily log. *Conclusion:* The correctness is confirmed.	OK	OK
D.3. Sampling				

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
a) Implementation of sampling plan ***(EB70 Annex 11; D3)*** *Check whether the PP has applied a sampling approach to determine the monitored values (as per section D.2 above).* *If this is the case, please provide an assessment whether the PPs have correctly and sufficiently described the implemented sampling plan including* *a) Description of the implemented sampling design* *b) Collected data* *c) Analysis of collected data* *d) Demonstration on whether the required confidence/precision has been met.*	/PDD/ /AMS-I.D/	☒ No sampling approach has been used by the PP to determine the monitored parameters **OR**. ☐ A sampling approach has been taken for the following monitored parameter: ***Parameter: Name_of Parameter*** *Description:* *Verifier´s action:* *Conclusion:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
b) Sampling during verification *In case the VT has applied a sampling approach in the course of the verification the approach shall be described for each parameter.*	/PDD/ /AMS-I.D/	☒ No sampling approach has been used by the VT to verify the monitored parameters **OR**. ☐ A sampling approach has been applied by the VT for the following monitored parameter: ***Parameter: Name_of Parameter*** *Description:* *Conclusion:*	OK	OK
E. Calculation of Emission reductions				
E.1. Traceability ***(EB 70 Annex 3, §§ 212, 214)*** *Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spread-sheet shall be used. All applied formulae must be visible.*	/XLS/	*Description:* An unprotected ER calculation spreadsheet has been provided. All applied formulas are visible. *Verifier´s action:* The ER calculation spreadsheet has been checked. *Conclusion:* The calculation is completely traceable.	OK	OK
E.2. Parameter consistency ***(EB 70 Annex 3, § 214)*** *Assess whether all internal and external parameters and data used for calculation are applied consistently*	/XLS/ /PDD/ /MR/	*Description:* The emission factor is used as combined margin (CM), determined as combination of operating margin (OM) and build margin (BM) and calculated ex-ante in the validated PDD and	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
in the monitoring report and the calculation spreadsheet? *Consider only the correct data exchange between the monitoring report and the calculation spreadsheet (if any). Further ensure the consistency of notations for all parameters in the PDD, MR, calculation spreadsheet.*		remains fixed throughout the first crediting period. The net electricity supplied by project activity in the ER spreadsheet is consistent with the MR as well as the project and baseline emission and leakage. *Verifier´s action:* The values in the ER calculation spreadsheet were checked against the registered PDD and the MR *Conclusion:* All internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet.		
E.3. Correctness of calculation ***(EB 70 Annex 3, §§ 235-236)*** *Check if the applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and / or the approved methodology.* *Assess whether the provided calculations are complete and reflect all requirements of the monitoring plan.* *Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.*	/XLS/ /MR/ /PDD/ /AMS-I.D/	*Description:* According to applied methodology, the emission reduction is calculated as follows: ER_y (tCO_{2e}/y) = BE_y – PE_y - LE_y Where: BE_y is the baseline emission during year y. PE_y is the project emission during year y. LE_y is the leakage of the project during year y. Baseline emission: $BE_y = EG_{BL,y} \times EF_{CO2,grid,y}$ Where: $EF_{CO2,grid,y}$ is the emission factor in year y. EG_y is the net power supply by the project in year y. Project emission: $PE_y = 0$	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		Leakage: $LE_y = 0$ ER_y (tCO_{2e}/y) = BE_y – *0 - 0* The emission reduction is based on the monitored data measured during this monitoring period. The baseline emissions are calculated as a product of net supplied electricity and the emission factor. The net supplied electricity was calculated through the monthly data of meter readings. The emission factor is fixed for the first crediting period. The project emissions and leakage are considered as zero according to the applied methodology and registered PDD. *Verifier´s action:* The ER calculation spreadsheet and MR were checked with the MP and applied methodology. *Conclusion:* The applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and / or the approved methodology.		
E.4. Emission reductions table ***(EB 70, Annex 11, E.4)*** *Check if the MR includes a summary table of the emission reductions calculation specifiying separately* - *Total baseline emissions* - *Total project emissions:* - *Total leakage*	/MR/	☒ The MR includes in section E.4 a summary table of the emission reductions calculation. ☒ The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately. ☒ The values as specified in the ER summary table are correct; no issues have been identified during the verification which require changes in the ER calculation.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
- *Total emission reductions.* *Assess whether the values are correct or need to be revised as a consequence of issues identified above.*		☐ During the verification issues with impact on the ER calculation have been identified. Thus subject to the closure of above listed findings the summary table in E.4 needs to be revised. In this context the following additional findings have been identified:		
E.5. Comparison with ex-ante determined emission reductions ***(EB 70, Annex 11, E.5; E.6)*** *Check if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.* *Check further whether in case of an increase an appropriate explanation is included in the MR.* *Assess in case of a significant increase whether this is due to technical or organisational changes within or outside the control of the PP and – if this is case – whether the PRC have been considered appropriately.*	/XLS/ /MR/ /PDD/	*Description:* The MR includes a comparison of actual values of the monitoring period with the estimations in the registered GS PDD. The actual ER is lower than the value estimated in the GS PDD for the bundled project and the actual ER of each sub-project is also lower than the value estimated in the GS PDD separately (from 2011-08-27 to 2012-03-31). *Verifier´s action:* By means of MR, ER sheet, Electricity balance sheet and registered GS PDD check. *Conclusion:* The MR includes a comparison of actual values of the monitoring period with the estimations in the registered GS PDD and it is concluded that there is no risk of the great increase.	OK	OK
E.6. ER during the 1st commitment period and the period from 1 January 2013 onwards	/XLS/ /MR/	☒ The MR in section E.7 includes a summary table of the ER breakdown *a) ER up to 2012-12-31 and*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
(EB 70, Annex 11, E.7) *Check if the MR includes in chapter E.7 a breakdown of the actual ER into* *a) ER up to 2012-12-31 and* *b) ER from 2013-01-01 onwards* *The ERs for each period should be determined as per the actual generation. In cases where this is not possible or a cap has been applied a proportional (time related) approach should be chosen.*		*b) ER from 2013-01-01 onwards* ☒ The breakdown of the ERs during the first commitment period and from 2013-01-01 onwards is as follows: ☐ The ER have completely been generated during the first commitment period ☐ The ERs have completely been generated from 2013-01-01 onwards, ☒ The ERs have partly been generated during the first commitment period and partly from 2013-01-01 onwards. ☒ The breakdown of the ERs is correct, considering the applicable guidance. In this context the following additional findings have been identified:		

ANNEX 2: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL