GS VALIDATION REPORT

for the VER Project Activity

Dongdongtan 9MWp Solar PV Project

in

P. R. China

Report No. 01 997 9105077913

Version No.04, 2014-05-12

Designated Operational Entity (DOE)

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I. Project description:

Project title:	Dongdongtan 9MWp Solar PV Project		**Report No.:** 01 997 9105077913
Host Country:	P. R. China		**Current revision No.:** 04
Methodology:	AMS-I.D Version 17	☐ Large Scale ☒ Small Scale	**Date of current revision:** 2014-05-12 **Date of first issue:** 2014-01-21
Annual average emission reductions (estimate):			12,373 tCO_2e/yr
GHG reducing measure/technology:	Utilizing the renewable solar energy for electric power generation		

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Party	Project Participants	Contract Project Participant
P. R. China (Host)	Three Gorges New Energy Jiuquan Power Generation Co., Ltd.	☐
United Kingdom of Great Britain and Northern Ireland	Carbon Invcap International Trading Co., Ltd.	☒

II. Validation Team:

Validation Team			Role									
Full name	**Affiliation TÜV Rheinland**	**Appointed for Sectoral Scopes (Technical Areas)**	Team leader	Acting Team Leader	Local Expert	Team Member (Auditor)	Technicla Expert	Acting Tech. Expert	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Ms. GONG Jing	China	1.2	X									
Mr. ZHU Jiang	China	1.1,1.2, 4.5								X		
Mr. Walter TANG	China	1.1, 1.2, 2.1, 2.2, 3.1,4.3, 4.5, 13.1								X		

Validation Phases and Validation Status:

☒ Desk Review ☒ Follow up interviews ☒ Resolution of outstanding issues
☒ Corrective Actions / Clarifications Requested ☒ Full Approval and Submission for Registration
☐ Rejected

III. Validation Report:

Final approval	Released	Distribution
☒ Date: 2014-05-12	By: Mr. Henri Phan	☒ No distribution without permission from the Client or responsible organizational unit ☐ Unrestricted distribution

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Abbreviations

ACM	Approved Consolidated Methodology
BE	Baseline Emissions
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
EIA	Environmental Impact Assessment
ER	Emission Reduction
FSR	Feasibility Study Report
GHG	Greenhouse Gas
I	Interview
IPCC	Intergovernmental Panel on Climate Change
kW	Kilo Watt
kWh	Kilo Watt Hours
MoV	Means of Validation
NGO	Non-governmental Organization
NWPG	Northwest China Power Grid
ODA	Official Development Assistance
OM	Operating Margin
PDD	Project Design Document
P. R. China	People's Republic of China
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

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1 INTRODUCTION

The “Carbon Invcap International Trading Co., Ltd.” has commissioned the DOE TÜV Rheinland (China) Ltd. to perform a validation of the Project Activity “Dongdongtan 9MWp Solar PV Project” (hereafter called “the project”) in China. This report summarises the findings of the validation of the project, performed on the basis of GS version 2.2 requirements, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, monitoring plan, and the project’s compliance with relevant Gold Standard and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all GS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document (PDD) and Passport. The PDD and Passport are reviewed against the relevant Gold Standard criteria (see above). The Validation Team has employed a rules-based approach to ensure that, in accordance with Gold Standard Requirements (version 2.2) and Gold Standard Toolkit (version 2.2); these rules are compiled with for the project requesting registration as a proposed GS VER project activity.

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

2 METHODOLOGY

The validation consists of the following three phases:

I a desk review of the project design documents and Passport

II on-site visit and follow-up interviews with project stakeholders

III the resolution of outstanding issues and the issuance of the final validation report and opinion.

The following sections outline each step in more detail.

2.1 Desk Review of the Project Design Documentation

The following table outlines the documentation reviewed during the validation:

/1/ Goldchina Consultancy International Co., Ltd., PDD (version 01, 31/12/2013) and revised PDD (version 05, 08/05/2014);

Deleted: (version 04, 28/02/2014)

/2/ Goldchina Consultancy International Co., Ltd., Emission Reductions Calculation Spreadsheet;

/3/ Goldchina Consultancy International Co., Ltd., Passport (version 01, 31/12/2013) and revised Passport (version 05, 08/05/2014);

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/4/ The Gold Standard Requirements Version 2.2, 1st June 2012;

/5/ The Gold Standard Toolkit Version 2.2, 1st June 2012;

/6/ The Gold Standard Annexes;

/7/ Memorandum of Understanding (MoU) between The Gold Standard Foundation and Carbon Invcap International Trading Co., Ltd., 07 January 2014;

/8/ CDM Executive Board, Clean Development Mechanism Validation and Verification Standard, version 05.0;

/9/ CDM Executive Board, Clean Development Mechanism Project Standard, version 05.0;

/10/ CDM Executive Board,AMS-I.D, Grid connected renewable electricity generation, Version 17;

/11/ CDM Executive Board, Tool to calculate the emission factor for an electricity system, Version 04.0;

/12/ CDM Executive Board, Guidelines on the demonstration of additionality of small-scale project activities, Version 09.0;

/13/ CDM Executive Board, Guidelines for the reporting and validation of plant load factors, version 01, 17th July 2009;

/14/ CDM Executive Board, Guidelines on assessment of de-bundling for SSC project activities, version 03, 28th May 2010, EB54;

/15/ CDM Executive Board, Project Design Document Form (CDM-PDD) for small-scale project activities (F-CDM-SSC-PDD), version 04.1;

/16/ CDM Executive Board, Guidelines for completing the project design document form for small-scale CDM project activities, version 01.1, 1st April 2013;

/17/ CDM Executive Board, Guidance for request for deviation titled "Application of AM0005 and AMS.I.D in China", http://cdm.unfccc.int/Projects/deviations

/18/ IPCC 2006 Guidelines for National Greenhouse Gas Inventories;

/19/ CDM Executive Board, Glossary of CDM Terms version07.0, EB70 Annex7, 23 November 2012

/20/ China Electric Power Yearbook 2008~2012;

/21/ China Energy Statistics Yearbook 2010~2012;

/22/ CDM Projects in Pipeline, 1st February 2014, available at: *http://www.cdmpipeline.org/*

/23/ Chinese Government, Environment Impact Assessment Law, 28th October, 2002;

/24/ NDRC, 2013 Baseline Emission Factors for Regional Power Grids in China, 17th September 2013;

/25/ Three Gorges New Energy Jiuquan Power Generation Co., Ltd., Business license;

/26/ Environment Assessment Research Center of Lanzhou University, Environmental Impact Assessment (EIA) Form, February 2012;

/27/ Gansu Provincial Environmental Protection Bureau, EIA Approval (GHPBF[2012]21), 30th March 2012;

/28/ Shanghai electric power design institute Co., Ltd., Feasibility Study Report (FSR), February 2012;

/29/ Gansu Provincial Development and Reform Commission, FSR Approval(GFGNY[2012]2179), 28 December 2012

/30/ Three Gorges New Energy Jiuquan Power Generation Co., Ltd., Monitoring Manual for the proposed project activity;

/31/ Three Gorges New Energy Jiuquan Power Generation Co., Ltd., Training Records, 1st December 2013;

/32/ Gansu Provincial Electricity Supply Co., Ltd, Grid connection Notice for the proposed project activity, 22 July 2013;

/33/ Technical Specification of the solar cell modules, Yingli Energy Limited company of China

/34/ Technical Specification of Inverters, Sungrow Power Supply Co., Ltd.

/35/ Solar PV cell modules Purchasement contract, 1st September 2013

/36/ Decision Meeting Minutes to develop the project with Carbon Revenue, 15 January 2013

/37/ The EPC Contract between Three Gorges New Energy Jiuquan Power Generation Co., Ltd. and Sungrow Power Supply Co., Ltd, 1st August 2013;

/38/ Construction Commencement Order, 1st September 2013

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/39/ Emission Redution Purchase Agreement was signed, 10 October 2013

/40/ Project Operation Logbook

/41/ Attendee signed list of Stakeholder Feedback Meeting, 17 January 2014;

/42/ The Questionnaire Survey Records at Stakeholder Feedback Meeting, 17 January 2014;

/43/ Invitation emails for Stakeholder Feedback Meeting, 03 January 2014;

/44/ Invitation Letter to government officials for SFR, send on 02 January 2014

/45/ Public Notice to local stakeholders for invitation of SFR, 02 January 2014

/46/ Email Receipt of Documents Listed from GS Registry, 31 December 2013

/47/ Email Receipt of Documents Public from GS Registry, 08 January 2014

/48/ Default national emission factor of SO_2 and NOx for fossil fuel-based power plants: http://news.bjx.com.cn/html/20120606/364987.shtml

/49/ National People's Congress, Labour Law of P. R. China http://www.chinaacc.com/new/63/64/80/2006/2/zh3433185739622600227086-0.htm

/50/ Ratifications for China on International Labour Standard; http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103404

/51/ United Nations Convention against Corruption; http://www.unodc.org/unodc/en/treaties/CAC/signatories.html

/52/ Three Gorges New Energy Jiuquan Power Generation Co., Ltd., Employee Contract;

/53/ Three Gorges New Energy Jiuquan Power Generation Co., Ltd., Rules and regulations of the company;

/54/ Ministry of Commerce, Technical administrative code of electric energy metering (DL/T 448-2000), 3rd November 2000;

2.2 Follow-up Interviews with Project Stakeholders

TÜV Rheinland Validation Team carried out an on-site visit dated from 16/01/2014-18/01/2014, and performed interviews with the project representatives and stakeholders.

	Date	Name	Organization	Topic
/i/	2014-01-17	LI Bingqi WANG Hongye MA Jing MA Xiaolong LI Wei	Three Gorges New Energy Jiuquan Power Generation Co., Ltd. (PP in host country)	- PP's background - Project implementation - Technical design - Solar energy sources - Public funding - SFR process
/ii/			Development and Reform Comission	- Project approval - Impacts on local

	2014-01-17	YANG Zhiwen	of Suzhou Area	economic, social and sustainable development - Preferential policy - Financial subsidy
/iii/	2014-01-17	YAN Jifeng	Environment Protection Bureau of Suzhou Area	- EIA approval - Environmental concerns - Sustainable development - Stakeholder consultation
/iv/	2014-01-17	GUO Hongwen	Goldchina Consultancy International Co., Ltd. (Consultant)	- Project design - Baseline identification - ER calculation - Additionality issues - Monitoring plan
/v/	2014-01-17	WANG Junren WANG Feng LI Jiwen	Local residents	- Job opportunities - Opinion on the project - Benefits from this project

2.3 Resolution of Outstanding Issues

The objective of this phase of the validation is to resolve any outstanding issues which need be clarified prior to TÜV Rheinland's positive conclusion on the project design. In order to ensure transparency a validation protocol is customised for the project. The protocol shows in transparent manner criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a GS VER project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of two tables. The different columns in these tables are described in the figure below. The completed validation protocol for this project is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfilment of GS criteria or where a risk to the fulfilment of project objectives is identified. Corrective action requests (CAR) are issued, where:

i) mistakes have been made with a direct influence on project results;

ii) GS and/or methodology specific requirements have not been met; or

iii) there is a risk that the project would not be accepted as a GS VER project or that emission reductions will not be certified.

A request for clarification (CR) may be used where additional information is needed to fully clarify an issue.

Validation Protocol Table 1: Validation requirements				
Checklist Question	***Reference***	***Means of validation (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various UNFCCC requirements as specified in the VVM are linked to checklist questions the project should meet. The checklist is organised in different sections, following the logic of the VVM.	*Gives reference to documents where the answer to the checklist question or item is found.*	*Explains how conformance with the checklist question is investigated. Examples of means of validation are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (**OK**), or a **corrective action request (CAR)** due to non-compliance with the checklist question (See below). A request for clarification (CR) is used when the validation team has identified a need for further clarification.*

Validation Protocol Table 2: List of Requests for Corrective Action (CAR) and Clarification (CR)			
Draft report clarifications and corrective action requests	***Ref. to checklist question in table 2***	***Summary of project owner response***	***Validation conclusion***
If the conclusions from the draft Validation are either a CAR or a CR, these should be listed in this section.	*Reference to the checklist question number in Table 2 where the CAR or CR is explained.*	*The responses given by the project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".*

2.4 Internal Quality Control

The final validation report underwent a technical review by a qualified independent reviewer before requesting registration of the project activity. The technical review was performed by a technical reviewer qualified in accordance with TÜV Rheinland's qualification scheme for Gold Standard validation and verification requirements.

2.5 Validation Team

Validation Team			**Type of Involvement**						
Full name	**Affiliation TÜV Rheinland**	**Appointed for Sectoral Scopes (Technical Areas)**	Supervising the work	Desk review	Site Visit + Interview	Report and protocol Writing	Technical Expert Input	Reporting Support	Technical Reviewer

Ms. GONG Jing	China	1.2	X	X	X	X			
Mr. ZHU Jiang	China	1.1,1.2, 4.5							X
Mr. Walter TANG	China	1.1, 1.2, 2.1, 2.2, 3.1,4.3, 4.5, 13.1							X

3 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of validation and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

3.1 Project Description

The validation means of documentation review, on-site observation, stakeholders' interview and background investigation on the internet have been used to ensure the description of the project is accurate and complete.

The Project Design Document is based on the latest template of the UNFCCC Project Design Documents/15/ and is completed in accordance with the CDM Executive Board, "Guidelines for completing the project design document", version 01.1/16/.

Through document review of PDD/1/ and on-site interview with the representatives'/i//ii//iii/ from the project owner, the Validation Team confirms that the proposed project involves the installation of 36,036 pieces of 250Wp polycrystalline silicon solar cell modules, aggregating to a total of 9.009MWp installed capacity. Via inverter, the direct current electricity generated by these solar modules involved in the project is converted into the alternative current electricity, and then is finally delivered to Northwest China Power Grid (NWPG) after being raised to 35KV, as stipulated in the Grid Connection Notice/32/.

The project is located in Dongdongtan Area, Suzhou District, Jiuquan City,Gansu Province, P. R. of China. The geographical coordinates for the center of the project activity is east longitude of 98℃ 2′09″ and north latitude of 39°36′10″, which is consistent with the FSR/28/.

Based on the technical specification of the solar cell modules and inverters/33//34/ and the nameplates information of equipment inspected during the on-site visit, the main technical parameters of solar module and inverter described in the PDD are confirmed as correct. The main equipment is manufactured by Yingli Energy Limited company of China and Sungrow Power Supply Co., Ltd., which can be widey observed in China and thus represents current good practice.

The project will achieve emission reductions by supplying zero-emission electricity to NWPG, which is dominated by fossil-fuel based power plants according to the recent China Electric Power Yearbook/20/. It is reported in the FSR/28/ that the annual net electricity supplied to the grid is 14,440MWh. The designed lifetime of the main equipment (incl. polycrystalline silicon solar module and inverter) of the project is 25 years, which is stipulated in the technical specifications/33//34/. Thus, the operational lifetime of the project activity is expected to be 25 years.

A renewable crediting period has been chosen for the project, starting of the first 7years crediting period starting from 08/12/2013, i.e. project operation date/40/ (As retroactive cycle project can receive realiased emission reducation prior to GS registration for a maximum of two years, it is credible that the operation date can be the starting date of the crediting period). Over the crediting period, the estimated emission reduction is 12,373tCO_2e/yr due to the displacement of electricity generated dominantly by fossil fuel fired power from NWPG.

The project starting date is identified as 01 August 2013 in the PDD, which has been justified by the Validation Team (please refer to detailed discussion in Section 3.4 of this report).

Starting date of project	*Expected project operational lifetime*	*Crediting period*
01 August 2013 */37/*	*25 years*	*Renewable(3*7years) crediting period*

The Monitoring Manual and training records /30//31/ have been checked to be comprehensively documented that the monitoring staff will receive sufficient trainings to ensure the appropriate operation and maintenance of the project activity.

Debundling Check

The debundling check is carried out based on the Guidelines on assessment of debundling for SSC project activities/14/. By means of checking the UNFCCC website and the latest CDM Pipeline compiled by UNEP Risoe Centre/22/, the validation team confirmed that no registered small-scale CDM photovoltaic project activity (incl. application for registration) within 1 km of the project boundary of the proposed small-scale activity has the same project participant as the project before the the project's time of first submission (i.e. 31 December 2013/46/). Therefore, the project is not deemed to be a de-bundled component of a large project activity, and accordingly eligible to use the simplified modalities and procedures for small-scale CDM project activities.

In summary, through the validation by means of documentation review and on-site assessment & interviews with stakeholders, the Validation Team concludes that the project description in the PDD (version 05, 08/05/2014) is complete and accurate.

3.2 Baseline and Monitoring Methodology Check

3.2.1 Applicability of the selected methodology to the project activity

By means of checking the FSR/28/, EIA/26/ and their official approvals/27//29/, EPC contract/37/, the project activity is confirmed to be the Greenfield renewable photovoltaic power plant with the installed capacity of 9.009MW, which will not change in the project operational lifetime.

The project correctly applies the approved simplified baseline and monitoring methodology AMS-I.D Version 17, -"Grid connected renewable electricity generation"/10/, in conjunction with the "Tool to calculate the emission factor for an electricity system" (Version04.0). Based on the information of UNFCCC website http://cdm.unfccc.int/methodologies/DB/RSCTZ8SKT4F7N1CFDXCSA7BDQ7FU1X, the validation team can confirm that the approved methodology and tool applied for the project are latest and valid.

The justification of applicability criteria for the simplified baseline and monitoring methodology are assessed by the validation team by means of documentation review and the onsite assessment. It is the validation team's opinion that the project fully meets the criteria as described as follows:

Applicability criteria of the methodology AMS-I.D Version 17	Criteria fulfilled	Determination by the validation team
The methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: (a) Supplying electricity to a national or a regional grid; (b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	☒ Yes ☐ No ☐ N/A	As reflected in the FSR/28/, EIA/26/ and their approvals/27//29/, the project is confirmed to be a photovoltaic project. And in accordance with the Grid Connection Notice/32/, the electricity generated by the project will be supplied to the national power grid of NWPG. Therefore, this criterion is applicable to the project activity.
Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 2 of the methodology.	☒ Yes ☐ No ☐ N/A	As reflected in the FSR/28/, EIA/26/ and their approvals/27//29/, the project type is “Project supplies electricity to a national/regional grid”. As per table 2 of the methodology, this peoject type applied AMS-I.D. Therefore, this criterion is applicable to the project activity.
This methodolgy is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) exisiting plant(s); or (d) Involve a replacement of (an) existing plant(s).	☒ Yes ☐ No ☐ N/A	As reflected in the FSR/28/, EIA/26/ and their approvals/27//29/, the project is validated to be a new photovoltaic power plant at a site where there was no renewable energy power plant operating prior to the project implementation of the project activity, which is furhter confirmed by the on-site inspection of the validation team. Therefore, the criterion is applicable to the project activity.
Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: • The project activity is implemented in an existing reservoir with no change in the volume of reservoirl; • The project activity is	☐ Yes ☐ No ☒ N/A	Not applicable since the project is a Greenfield photovoltaic power plant as assessed above.

Applicability criteria of the methodology AMS-I.D Version 17	Criteria fulfilled	Determination by the validation team
implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4W/m^2; • The project activity results in new reservoir and the power density of the power plant, as per definitions given in the project emissions sections, is greater than 4W/m^2;		
If the new unit has both renewable and non-renewable components (e.g. a wind/disel unit), the eligibility limit of 15MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire until shall not exceed the limit of 15MW.	☐ Yes ☐ No ☒ N/A	As assessed above, the project is Greenfiled photovoltaic power plant without non-renewable components, and the actual total installation is verified to be 9.009MWp by means of checking the Technical Specification of the equipment/33//34/, which is less than the eligibility limit of 15MW for a small scale CDM project activity.
Combined heat and power (Co-generation) systems are not eligible under this category.	☐ Yes ☐ No ☒ N/A	By means of checking the FSR/28/, EIA/26/ and their approvals/27//29/, the project is to utilize solar energy for power only generation, thus the project activity is confirmed to be not co-generation systems and not applicable to this criteria.
In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the unit added by the project should be lower than 15MW and should be physically distinct from the existing units.	☐ Yes ☐ No ☒ N/A	Not applicable since the project is a Greenfield photovoltaic power plant as assessed above.
In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15MW.	☐ Yes ☐ No ☒ N/A	Not applicable since the project is a Greenfield photovoltaic power plant as assessed above.

3.2.2 Project Boundary

The project boundary of the project has been assessed by means of on-site physical observation and documentation review. The project boundary is clearly defined as the project power plant and all power plants connected physically to the electricity system of NWPG, which is defined in accordance with the "Tool to calculate the emission factor for an electricity system"/11/ since there are no significant transmission constraints between the power plants of the NWPG. The NWPG includes provinces of Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang, on the basis of information announced by NDRC of China on 17th September 2013/24/, which is most recent available one at the time of first submission of the project activity to Gold Standard (i.e. 31 December 2013/46/).

The identified boundary is correctly justified according to the applied AMS-I.D Version 17/10/ and the "Tool to calculate the emission factor for an electricity system"/11/ and the overview of emission sources are presented as below,

	GHGs involved	Description
Baseline emissions	CO_2	Major emission source
Project emissions	N/A	Zero for the renewable solar power plant in accordance with the applied AMS-I.D Version 17/10/.
Leakage	N/A	In compliance with the applied AMS-I.D Version 17/10/, the leakage can be not considered since all power generation equipment are newly purchased./33//34/.

In summary, the project boundary was correctly identified in accordance with the methodology AMS-I.D Version 17. All greenhouse gas emissions occurring within the proposed project activity boundary as a result of the implementation of the proposed CDM project activity have been appropriately addressed in the PDD.

By means of on-site inspection and checking the FSR of the project/28/ and its approval/29/, the validation team confirmed that no other greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed project activity which are expected to contribute more than 1% of the overall expected average annual emission reduction, with respect to the methodology applied.

3.2.3 Baseline Identification

The baseline of the project is identified based on the simplified baseline and monitoring methodology AMS-I.D, Version 17-"Grid connected renewable electricity generation"/10/. As a new grid-connected renewable power plant/26//27//28//29/ the baseline scenario of the project is thus determined as Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the

addition of new generation sources in the NWPG, as defined in the "Tool to calculate the emission factor for an electricity system"/11/.

With regard to the Para 94 of VVS/8/, the Validation Team confirms the following statements as a tabular manner:

The approved baseline methodology applicable to the project - *explicit criteria* - *implicit criteria (e.g. available scenarios, applicability of formulas for BE/PE/LE calculations)*	☒ Yes ☐ No	The applicability of the methodology AMS-I.D Version 17 has been justified in Section 3.2.1 above.
PDD includes all assumptions and data used by project participants	☒ Yes ☐ No	The PDD listed all assumptions and data in accordance with AMS-I.D Version 17/10/ and the "Tool to calculate the emission factor for an electricity system"/11/, details as below, "*Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources in the* NWPG"
All the references and documents used are relevant for establishing the baseline scenario	☒ Yes ☐ No	The baseline scenario to the project is prescribed as per the applied methodology AMS-I.D Version 17.
All the references and documents used are correctly quoted and conservatively interpreted in the PDD	☒ Yes ☐ No	The baseline scenario is prescribed as per the applied methodology AMS-I.D Version 17.
All relevant policies / regulations considered are listed in the PDD	☒ Yes ☐ No	The baseline scenario is prescribed as per the applied methodology AMS-I.D Version 17.
Identified potential baseline scenarios reasonably represent what would/could occur in the absence of the proposed project activity	☒ Yes ☐ No	The baseline scenario is prescribed as per the applied methodology AMS-I.D Version 17.
The baseline scenario selection is appropriate and determined according to the methodology	☒ Yes ☐ No	The baseline scenario to the project is appropriately selected as per the applied methodology AMS-I.D Version 17.

The approved methodology used is applicable to the identified baseline scenario	☒ Yes ☐ No	The applied methodology AMS-I.D Version 17 is applicable to the identified baseline scenario in the PDD/1/.

3.3 Project Eligibility

The installation capacity of the project activity is 9.009MW and the ex-ante annual emission reduction by the project activity is 12,373tCO_2e, both of which are within the eligible limit of small-scale project activity as per scale divisions regulated by UNFCCC, the project is a small scale project.

The P. R. China is an eligible state for Gold Standard VER projects with no cap on GHG emissions.

According to Gold Standard Annex C – Specific Eligibility Criteria, the project is a solar PV project for power generation, which falls under the type of "The renewable energy supply category".

The project reduces CO_2 by supplying electricity to the Power Grid (NWPG), which is dominated by fossil fuel fired power plants according to recent China Electric Power Yearbook/20/. CO_2 is one of three GHGs eligible under The Gold Standard.

The project does not receive any public funding as per the project PDD. An ODA declaration is presented in the Annex 1 of the Gold Standard (GS) Passport (version 05, 08/05/2014) based on the ODA Declaration Template in the Annex D of Toolkit version 2.2, in which the project developer has declared the project's non-use of ODA. Further, the Validation Team did not reveal any information indicating that the project can be seen as a diversion of official development assistance (ODA) funding towards China.

The project was not previously announced to be going ahead without the revenues from carbon credits. The project applies for Gold Standard under the retroactive project cycle since the project applies for Gold Standard registration after the start date of the project (i.e,01 August 2013)/37/. The project applies three renewable crediting periods of 7 years, which is the standard UNFCCC crediting period.

Through on-site interview with the local stakeholders'/i//ii/ and internet search, the Validation Team confirms that the project does not claim any other certification schemes such as Green or White Certificates, or equivalents, and therefore is convinced that no double counting would arise from the issuance of Gold Standard carbon credits.

3.4 Additionality

The Validation Team has checked the additionality of the project in this section through a step-wise discussion as follows:

3.4.1 Identifying Project Start Date and Prior Consideration

The Validation Team has checked the "project implementation timeline" with the evidences received during validation and the findings are chronologically summarized below.

Project Implementation Timeline

Time	Activities
February 2012	Completion of Feasibility Study Report/28/
February 2012	Completion of Environmental Impact Assessment (EIA) Form/26/
30 March 2012	EIA Approval/27/
28 December 2012	Project Approval/29/
15 January 2013	Decision Meeting to develop the project with Carbon Revenue/36/
1 August 2013	EPC Contract(excluded Solar Cell modules Purchasement) was signed/37/
1 September 2013	Solar PV cell modules Purchasement contract/35/
1 September 2013	Construction Commencement/38/
10 October 2013	ERPA was signed/39/
08 December 2013	Operation Date/40/
31 December 2013	The draft passport was submitted to GS firstly for a Pre-feasibility Assessment./46/
08 January 2014	The Stakeholder Feedback Round of the Project was kicked-off/47/
17 March 2014	The Project requested for the GS registration.

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According to the project timeline listed above, the project starting date is identified as 01 August 2013 , evidenced by the signed EPC Contract/37/, which is confirmed by the Validation Team to be the earliest date indicating the real action of the project activity in accordance with the "Glossary of CDM terms"/19/.

The project owner hold the decision meeting to develop the project with carbon revenue on 15 January 2013/36/ before the project start date. And the ERPA/39/ was signed on 10 October 2013. These evidences are demonstrated that the carbon revenue is prior considered and continuous actions has been tabken to ensure the revenue.

3.4.2 Positive List Analysis

By means of checking the FSR/28/, approval of FSR/29/, EIA/26/, approval of EIA /27/ and the equipment purchase evidence/33//34//35//37/, the project activity is confirmed to be a photovoltaic project with actual installed capacity of 9.009MW, which falls within the scope of solar technologies (photovoltaic and solar thermal electricity generation) no greater than 15MW as stipulated the guidelines on the demonstration of additionality of small-scale project activities/12/.

Further, as per the Grid Connection Notice/32/ approved by Gansu Provincial Electricity Supply Co., Ltd, the electricity generated by the project activity will be delivered to NWPG.

To sum up the above two aspects, the project is compliance with the positive list of grid-connnected renewable electricity generation technologies stipulated in the criterion (a) of the § 2 of the guidelines on the demonstration of additionality of small-scale project activities/12/. Hence, the project activity can be automatically defined as additional, without further documentation of barriers, which has been accurately justified in the PDD/1/.

3.5 GHG Emission Reduction Estimation Check

The validation team has assessed all the calculations of baseline emissions, project emissions, leakage and emission reductions in the PDD/1/ against the requirements

presented in the applied methodology AMS-I.D Version 17/10/ and "Tool to calculate the emission factor for an electricity system"/11/.

Baseline emission

According to the applied methodology AMS-I.D Version 17/10/, the baseline emissions of the project are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor as below,

$BE_y=EG_{BL,y} * EF_{CO2,grid,y}$

Where,

BE_y = Baseline emissions in year y (tCO_2)

$EG_{BL,y}$ = Quantity of net electricity generation supplied to the grid as result of the implementation of the CDM project activity in year y (MWh)

$EF_{CO2,grid,y}$ = CO_2 emission factor of the grid in year y (tCO_2/MWh)

As discussed in the section 3.4.1 above, the project activity is confirmed by the validation team to be the installation of a new grid-connected renewable photovoltaic power plant at a site where no renewable power plant was operated prior to the implementation of the project activity. Thus, $EG_{BL,y}$ is able to be deemed as the quantity of net electricity generation supplied to the grid by the project activity, i.e. $EG_{BL,y} =EG_{facility,y}$.

According to the FSR complied by the qualified third party of Shanghai electric power design institute Co.,Ltd./28/, the annual net electricity supplied to the grid by the project is 14,440MWh, which is scientifically calculated via the professional software on the basis of solar irradiation data from year 1993 to 2009 provided by Jiuquan Meteorological Administration combined with the attenuation co-efficiency of polycrystalline silicon solar module involved in the project activity, the inverter loss and grid transmission loss. The annual operation hours are thus calculated as 1,602.8h at full capacity with plant load factor (PLF) of 18.30%. And the FSR was used to apply for the implementation approval of the project and the Development & Reform Commission of Gansu Province approved it on 28 December 2012/29/. As per "Guidelines for the Reporting and Validation of Plant Load Factors"/13/, the validation team concluded that the PLF of 18.30% is appropriate, thus the annual net electricity supply of 14,440MWh is considered credible.

In compliance with the applied AMS-I.D Version 17/10/, a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the "Tool to calculate the emission factor for an electricity system" is selected to calculate the baseline emission as documented in the PDD/1/.

According to the "Tool to calculate the emission factor for an electricity system" (version04.0)/11/, the combined grid emission factor of the project as of 0.856875tCO_2e/MWh was assessed by the validation team as follows:

1) The electricity generated by the project would be supplied to the NWPG. In accordance with the delineation of power grids, i.e. 2013 Baseline Emission Factors for Regional Power Grids in China factors issued by NDRC of China on 17th September 2013/24/, the power plants physically connected to the NWPG can be dispatched without significant transmission

constrains, and also it is confirmed that the NWPG has no electricity imports from other power grids. Thus, the NWPG is identified as the project electricity system of the project;

2) The calculation of the Operating Margin (OM) in the PDD is assessed as follows:

- the simple OM emission factor calculation method is appropriately selected because low cost/must run projects constitute less than 50% of the total grid generation of the NWPG from 2007 to 2011/20/;

- a 3-year generation-weighted average, based on the most recent available date at the time of first submission (i.e. 31 December 2013/46/), is properly used. Those applied data are derived from the China Energy Statistics Yearbook 2010 to 2012/21/, China Electric Power Yearbook 2010 to 2012/20/ and 2006 IPCC Guidelines for National Greenhouse Gas Inventories/18/;

- the Option B is properly selected for calculation of the simple OM since the data on fuel consumption and net electricity generation of each power plant/unit is not publicly available in China;

- the calculation of the OM is correctly conducted using the Equation (5) in the PDD, which is exactly the same as the Equation (1) stipulated in the "Tool to calculate the emission factor for an electricity system". The data and parameters used are appropriately derived from the data sources/18//20//21//24/.

As a result, the validation team confirmed that the OM emission factor calculated as 0.9720tCO_2e/MWh in the PDD fully complies with the Tool to calculate the emission factor for an electricity system.

3) The calculation of the Build Margin (BM) in the PDD is assessed as follows:

- because plant specific fuel consumption and electricity generation data is not publicly available in China, the approved deviation of the baseline methodology of AM0005/17/ is appropriately applied in the PDD;

- the cohort of power units necessary of the BM calculation has been properly selected in the PDD according to the above deviation. The installed capacity addition from year 2009 to 2011 was selected as it stands for 33.93% of the total installed capacity of year 2011, which satisfies the specification of over 20% in the Tool to calculate the emission factor for an electricity system;

- the BM emission factor is ex-ante calculated and the Equations (7) – (12) used to calculate the BM emission factor in the PDD has been applied correctly as per the above approved deviation and the "Tool to calculate the emission factor for an electricity system". The data and parameters used are appropriately derived from the data sources/18//20//21//24/.

As a result, the validation team confirmed that the BM emission factor calculated as 0.5115tCO2e/MWh in the PDD fully complies with the Tool to calculate the emission factor for an electricity system.

4) The validation team confirmed that the Combined Margin (CM) is calculated correctly as follows:

- the default weights of 75% OM and 25% BM for the project have been correctly selected

and the Equation (13) in the PDD is properly applied in the PDD in accordance with the "Tool to calculate the emission factor for an electricity system".

In conclusion, the validation can confirm that the CM of the project is appropriately calculated as 0.856875tCO_2e/MWh in the PDD/1/ based on the most recent data available at the time of first submission (i.e. 31 December 2013/46/). Thus, the baseline emission can be calculated as 12,373tCO_2e/yr based on the annual net electricity supply of 14,440MWh multiplying the combined grid emission factor of 0.856875tCO_2e/MWh.

Project emissions

The project activity is to utilize renewable solar energy source for power generation. In addition, by means of documentation review/26//27//28//29/, onsite physical observation and the project owner's confirmation/i/ during the onsite interview, the validation team confirm that no auxiliary power equipment is or would be installed at the project site. According to the applied methodology AMS-I.D Version 17/10/, it is thus reasonable to consider the project emissions as zero for the project.

Leakage

In accordance with the equipment purchase evidence documents/33//34//37/, the power generating equipment (incl. polycrystalline silicon solar module and inverter) are newly purchased from the solar equipment supplier, but not transferred from another activity. Thus, the leakage can be not considered.

Emission reductions

According to the applied methodology AMS-I.D Version 17/10/, the emission reductions of the project during the crediting period is the baseline emissions deducting both the project emissions and leakage.

However, based on the above assessment, both project emission and leakage are considered as zero for the project, thus the emission reductions are determined as the equivalent amount of baseline emissions. It is demonstrated in the FSR/28/ that the estimated annual net electricity supplied to the NWPG by the project is 14,440MWh, the expected emission reductions of the project are therefore calculated as 12,373tCO2e/yr over the first crediting period of 7 years.

With regard to the § 99 of VVS/8/, the validation team can conclude following opinions in a tabular form,

All assumptions made for estimating GHG are listed in the PDD	☒ Yes ☐ No	All the assumptions made for estimating GHG have been confirmed listed in the PDD Section B.6. The main assumptions are in line with project situation in FSR/28/, the methodology/10/ and the 2013 Baseline Emission Factors for Regional Power Grids in China, which was published on China DNA's official website on 17th September 2013/24/.

All data used by project participants are listed in the PDD	☒ Yes ☐ No	All data used by the project participants have been confirmed listed according to the FSR of the project, Tool to calculate the emission factor for an electricity system and relevant China DNA's Guidance.
Their references and sources are also listed in the PDD	☒ Yes ☐ No	The references and sources have been confirmed listed in the PDD Section B.6 and Appendix 4 Baseline Information.
Formulas, parameters, values are complete, accurate, transparent and conservative	☒ Yes ☐ No	Formulas, parameters, values have been confirmed completely, accurately, transparently and conservatively documented in the PDD Section B.6 and Appendix 4 Baseline Information according to the FSR of the project, the Tool to calculate the emission factor for an electricity system and China DNA's Guidance/24/.
All the references and documents used are correctly quoted and conservatively interpreted in the PDD	☒ Yes ☐ No	All the references and documents used have been correctly quoted and conservatively interpreted in the PDD Section B.6 and Appendix 4 Baseline Information according to the FSR of the project, the Tool to calculate the emission factor for an electricity system and China DNA's Guidance/24/.
Methodology has been applied correctly to calculate project emissions, baseline emissions, leakage emissions and emission reductions	☒ Yes ☐ No	The methodology (i.e.AMS-I.D Version 17) has been correctly applied to calculate project emissions, baseline emissions, leakage emissions and emission reductions. Please also see above descriptions in this section.
All the emissions of baseline emissions can be replicated using information provided in the PDD	☒ Yes ☐ No	All the emissions of baseline emissions can be replicated by multiplying the annual net electricity output to NWPG(i.e.14,440MWh) by the CO_2 emission factor of NWPG (i.e. 0.856875 tCO2e/MWh). The baseline emissions calculation is thus calculated as 12,373tCO2e/yr.

3.6 Sustainability Assessment

'Do no harm" assessment

As indicated in the GS Passport, the 'Do no harm" assessment was carried out by the project participant. According to the GS Toolkit Section 2.4.1, the "Do no harm" assessment is based on the safeguarding principles of the UNDP in four aspects: Human Rights, Labor Standards, Environmental Protection and Anti-Corruption.

The potential risks alongside the safeguarding principles are listed in the Section F.1 of the GS Passport. The "Do no harm" assessment is carried out referring to the FSR/28/, Environmental Impact Assessment Form/26/, and relevant national laws.

In respect of human rights, the project activity is built within Dongdongtan Area of Jiuquan City occupying barren land, which respects internationally proclaimed human rights and does not involve resettlement or cultural heritage alternation, damage or removal. This is confirmed by interviewing with local government officials /ii//iii/, documents reviewing of FSR/28/, Environmental Impact Assessment Form/26/ as well as on-site inspection.

For labour standards, the project developer respects the employees' freedom of association and right to collective bargaining as well as safety work and forbids forced or compulsory labour, child labour and employment discrimination, which is indicated in the Employee contract/52/ and the company's rules and regulations/53/, and also protected by Labor Law of P.R. China/49/. In addition, the host country, China, has ratified for ILO Convention 138 (Minimum Age Convention), Convention 182 (Worst Forms of Child Labour Convention), Convention 100 (Equal Remuneration Convention) and Convention 111 (Discrimination Convention)/50/.

For environmental protection, no significant environmental impacts have been identified as per the Environmental Impact Assessment Form/26/, which is also confirmed by by local government officail/ii//iii/. As for anti-corruption, the host country, China, has ratified the United Nations Convention against Corruption/51/, and Three Gorges New Energy Jiuquan Power Generation Co., Ltd. has issued the company's rules and regulations/53/, which indicates that the employee are strictly prohibited to be involved or complicit in any kinds of corruption.

Therefore, the Validation Team considers that the "Do no harm" assessment has been based on accurate information, with all the reference sources indicated in the revised GS Passport.

Sustainable Development matrix

Detailed assessment has been applied to establish the sustainable development matrix in Section F.2 of the GS Passport. Reference sources have been provided for the descriptions of all the indicators. According to GS Toolkit Section 2.4.2 and Annex I, the validation of sustainable development (SD) matrix is tabulated below:

Indicator	Score in GS Passport	Validation Team's Opinion
Air quality	+	As per the EIA and its approval/26//27/, the validation team confirms that the project does not result in the negtive impact on the surrounding air quality. Air pollutants were controlled through mitigation measures during construction

		work. In a way, the project activity will help reduce the air pollution such as SOx, NOx emissions due to the reduced fossil fuel use.
Water quality and quantity	0	According to the Environmental Impact Assessment Form/26/ approved by local authorities, no significant effects can be identified on water quality and quantity during the construction and operation of the project activity. Wastewater will be treated through wastewater treatment facility. Therefore this indicator is scored as neutral which is considered reasonable.
Soil condition	0	According to the Environmental Impact Assessment Form/26/ approved by local authorities, no industrial solid waste will be generated and the domestic solid waste will be transferred to local waste treatment plant without emitting any pollutants to the soil during the construction and operation period. Therefore the validation team confirms this project does not have negative impact on the soil condition and this indicator is scored as neutral which is considered reasonable.
Other pollutants	0	As per the EIA and its approval/26//27/, domestic solid waste and wasted equipment will be collected and transferred properly, and the noise pollutant is considered insignificant during the construction as there is no any schools, hospitals, residence communities, etc around the project site. Therefore, the impact from solid waste and noise pollutant is insignificant. Therefore this indicator is scored as neutral which is considered reasonable and conservative.
Biodiversity	0	The project is sited within Dongdongtan Area of Jiuquan City, where occupys mainly the barren land without rare species of animals and vegetation. This is confirmed by onsite inspection. So there is no significant impact on the biodiversity upon project development, therefore this indicator is scored as neutral which is considered reasonable.
Quality of employment	+	The project activity creates employment opportunities for both construction and operation period. Labor conditions, such as job-related health and safety will be improved by delivery of relevant trainings and/or workshops. Therefore this indicator is scored "+" and will be monitored.

Deleted: during the construction period, no special materials or processing procedure will be added. During the operation period, no any harmful pollutants can be produced.

Livelihood of the poor	0	The project improves the livelihood of those hired employee through income and national social security. In addition, the tax paid by the Project will be used for local infrastructure construction. Considering the impact is not direct and significant, it is assumed as neutral and deemed appropriate.
Access to affordable and clean energy services	0	As stated above, this project provides clean solar enegy to the power grid by displacing fossil fuel. However, the installed capacity of the project only accounts for 0.03%/20/ of Gansu Power Grid, and the impacts on the enegy use can be ignored. Therefore this indicator is assumed as neutral and deemed conservative.
Human and institutional capacity	0	By onsite inspection, the project is confirmed as far away from the residential area. The project does not have any impact on gender equality, social structures, and access to schooling or distribution of assets. This indicator is scored as nuetral and deemed conservative.
Quantitative employment and income generation	+	The project recruits a number of professional technical personnel for operation and maintenance of the Project during the Project operation period, and pays salaries and welfares and also helps to increase their income. Therefore this indicator is scored “+” and will be monitored.
Access to investment	0	As per FSR/28/, the project is finacially unattractive. It has no significant effect on further investments into similar project activities. Thus the indicator “Access to investment” is confirmed to be neutral.
Technology transfer and technological self-reliance	0	As this project is located in a Solar PV industry Area, and it can be inspected onsite that there are many other Solar PV projects in the project area. Although the project provides the trainings for the staff on the technology and plant operation, this indicator is still conservatively chosen as neutral as such technology is not a new technology in the region.

The project has used the sustainable development assessment matrix as required by the Gold Standard. The total score obtained is “+3”, based on the above validation of sustainable development indicators. The scoring in each section is summarized below:

- **Environment** scores a subtotal of +1 (from positive impact of “air quality”), while other indicators all score neutral;
- **Social development** scores a subtotal of +1 (from positive impact of “Quality of employment”), while other indicators all score neutral;

- **Economic and technological development** scores a subtotal of +1 (from positive impact of "Quantitative employment and income generation"), while other indicators all score neutral.

3.7 Stakeholder Consultation

Since the proposed project is applying for retroactive registration to the Gold Standard, a Local Stakeholder Consultation (LSC) is not required.

As confirmed by GS Foundation, 2 months' Stakeholder Feedback Round (SFR) has started on 08 January 2014/47/. All the relevant documentation such as the PDD, GS passport, non-technical summary of the project, etc. is publicly available to the stakeholders, which has been confirmed by the Validation Team through checking GS Confirmation Letter/47/ and the evidence provided by PP/41//42/.

As per Table 2.8 of GS Toolkit version 2.2, during the SFR process the stakeholders including NGOs, Government officials (including official representative from Chinese DNA), local residents, etc. have been invited for comments on the project through the methods such as email/43/, invitation letter/44/, posting the notification/45/, individual invitation and face-to-face interview. The SFR meeting was held on 17 January 2014/41//42/. This process has been clearly described in Section E.2 of the GS passport. No any negative comments were received during the SFR process.

As reported in Section E.3 of the GS passport, the continuous input/grievance mechanism is in place to reach out to relevant stakeholders and seek their feedback on the continuous input/grievance expression, which is deemed appropriate and feasible.

3.8 Pre-feasibility Assessment

The project participant has applied fast-track options as confirmed in the Memorandum of Understanding (MoU)/7/ signed between The Gold Standard Foundation and Carbon Invcap International Trading Co., Ltd. on 07 January 2014. As demonstrated above, the project is a small-scale renewable energy supply project under CDM rules. Based on the validation results in Section 3.3 of this report, the Validation Team confirms the relevant GS eligibility criterions of the proposed project have been fulfilled.

3.9 Monitoring Requirements and Monitoring Plan

The monitoring of the project activity consists of the monitoring of the emission reductions and the monitoring of the contribution to sustainable development. The monitoring of emission reductions is described in the PDD according to the AMS-I.D, Grid connected renewable electricity generation, Version 17. The sustainability monitoring plan is included in the GS Passport as per the requirements in the GS Toolkit Annex I. According to GS Toolkit 2.4.3, all non-neutral indicators and all mitigation and compensation measures put in place to prevent violation or risk of violating a safeguarding principle of the 'Do No Harm' Assessment or to 'neutralise' a Sustainable development Indicator and/or to address stakeholder concerns shall be monitored. The validation of monitored indicators is tabulated as follows:

No.	Indicator / Parameter	Validation Team's Opinion
1.	$EG_{facility,y}$	This parameter represents the net electricity supplied to the grid in the year y, which is to be continuously measured by the electricity

		meter (M1/M1') at the outlet of 35kV switch station of the Project. M1 is the main meter and M1' is the backup meter. The measurement is recorded monthly and will be cross checked by the records for sold/purchased electricity. M1/M1' can measure the electricity exported and imported simultaneously. Therefore, $EG_{facility,y}$ is the difference between the measured quantities of the grid electricity export and import. The accuracy of electricity meter (M1/M1') is not lower than 0.5S, which is in line with the "Technical administrative code of electric energy metering (DL/T 448-2000)"/54/. The electricity meters will be calibrated annualy as per "Technical administrative code of electric energy metering (DL/T 448-2000)". Thus the Validation Team considers that the selected parameter is appropriate.
2.	Air quality	The chosen parameter "Concentrations and emissions of SOx and NOx" can be calculated by the "Total clean and renewable electricity supplied by the Project" multiplied by "default national emission factor of SO_2 and NOx for fossil fuel-based power plants". The data source for SO_2 and NOx emission factor has been reviewed /48/and the value of them is confirmed as 2.3g/kWh and 2.6g/kWh respectively. Then the "Total clean and renewable electricity supplied by the Project" will be the indirect parameter to monitor the air quality. The indirect parameter "Total clean and renewable electricity supplied by the Project" is $EG_{facility,y}$, the measurement method of which has been discussed above. The mitigation measures only occurred during the construction period. Its monitoring method is checking the spraying water logging and interview with the local residents. It only need to be monitored once in the first verification.
3.	Water quality and quantity	"Wastewater will not be discharged without treatment" is chosen as furture target for parameter. The wastewater treatment facility will be checked and the local residence will be interviewed once each monitoring period, to ensure that the wastewater is treated through wastewater treatment facility during construction and operation period. The Validation Team considers that the mitigation measure is appropriate and the furture target for parameter is deemed reasonable.
4.	Other pollutants	"Solid waste will not be discharged without treatment" is chosen as future target for parameter. The domestic solid waste collecting device and the wasted equipment collecting place will be checked and the local residence will be interviewed once each monitoring

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		period. The Validation Team considers that the mitigation measure is appropriate and the furture target for parameter is deemed reasonable.
5.	Quality of employment	To monitor the indicator of "Quality of employment", the parameter "Training of staff" will be monitored. As confirmed during the interview, the project activity creates the technology-based employment related to the operation & maintenance and monitoring of the project. Labor conditions, such as job-related health and safety will be improved by delivery of relevant trainings and/or workshops. Thus the Validation Team considers that the selected parameter is appropriate.
6.	Quantitative employment and income generation	The parameter of "Number of jobs created in the operations of the Project and their salary levels" will be monitored to indicate the change of the indicator "Quantitative employment and income generation" compared to the baseline. The implementation of the project activity will employ the staff for project operation and maintenance. The selected parameter is deemed reasonable.

3.10 Environmental Impact Assessment

The main environmental impacts and its mitigation methods of the project activity have been summarized in Section D of the PDD. The environmental impacts resulted from the project activity were sufficiently described in Environmental Impact Assessment (EIA) Form/26/. The environmental impact assessment/26/ was carried out by Environment Assessment Research Center of Lanzhou University in February 2012 and was subsequently approved by Gansu Provincial Environmental Protection Bureau on 30 March 2012/27/ in accordance with Environment Impact Assessment Law/23/. The Validation Team has carefully reviewed the EIA Form/26/, of which the conclusion is that the project is acceptable as those impacts are not deemed significant and can be mitigated through related measures.

In addition, no significant environmental impacts were identified during the on-site assessment. This is further confirmed by the representative /v/ from local stakeholders through on-site interview. No environmental complaint was received since the project commences its construction according to on-site interview.

3.11 Validation Opinion

The "Carbon Invcap International Trading Co., Ltd." has commissioned the DOE TÜV Rheinland (China) Ltd. to perform a validation of the GS VER Project Activity "Dongdongtan 9MWp Solar PV Project". The validation is based on the information made available to the Validation Team, and the validation engagement only covered the project components detailed in this report. The Validation Team of TÜV Rheinland would not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

According to the GS requirements and toolkit Version 2.2, the chosen parameters and the justification of scores have been fully demonstrated in the SD Matrix and the corresponding

sustainability monitoring plan. The additionality of the project is demonstrated in the PDD according to the requirements of the UNFCCC for CDM projects. The Validation Team has checked that the project correctly applies AMS-I.D, Grid connected renewable electricity generation, Version 17, which is the most recent version of the methodology available at the time of first submission of the project activity for Gold Standard, and this is in line with the GS Requirement III.f.1/4/. The total emission reductions from the project are estimated to be 12,373tCO_2e/yr over the first crediting period.

In summary, the Validation Team concludes that the GS VER Project Activity "Dongdongtan 9MWp Solar PV Project" in the P. R. China, as described in the PDD (version 05, 08/05/2014) and GS Passport (version 05, 08/05/2014) meets all relevant requirements of the Gold Standard version 2.2 for the GS VER project activities. The DOE therefore requests the registration of the project as a GS-VER project activity.

Mr. GONG Jing(Team Leader)	Mr. Henri Phan (DOE Manager)
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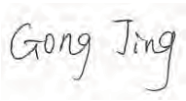	
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Appendix A

GS VALIDATION PROTOCOL

DONGDONGTAN 9MWP SOLAR PV PROJECT

in

P. R. China

REPORT NO. 01 997 9105077913

Table 1: Validation requirements

(based on the GS Toolkit, GS Requirements and their relevant Annexes)

Checklist question	Ref.	MoV*	Findings, comments, references, data sources	Draft conclusion	Final conclusion
1. Project Description					
1.1 Does the PDD contain a description, which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation? 1.1b) Is the description (incl. any process flow-charts, Spreadsheets etc.) complete, coherent and consistent with the provisions of the monitoring plan? 1.1c) Is the project's location clearly defined?	/1//3//25/	DR	Yes. PDD contains a clear description for the precise natural and technical aspects of project implementation.		OK
1.2 In the case of greenfield project activity, is the project design described sufficiently by means of specifications, drawings and manuals? *Provide Yes/No answer and indicate the documents which have been reviewed in relation to the issue.*	/1//16/ /28/	DR	Yes, the project design has been described sufficiently by means of specifications, drawings and etc.		OK
1.3 Does the project activity reflects current good practices, uses state of the art technology or would the technology result in a significantly better performance, than any commonly used	/1/ /28/	DR I	Yes, the project activity uses state of the art technology (i.e.solar PV for power generation), which reflects current good practices in China.		OK

* MoV = Means of Validation, DR= Document Review, I = Interview, www = internet search.

	technologies in the host country? *Provide the description of how validation has been carried out and what comparisons have been made.*					
1.4	In cases where the project activity involves the alteration of an existing installation or process, does the PDD provide a clear description of the differences between the project and the pre-project scenario? *Please, provide Yes/Now answer and update Tables 2, 3 and 4 accordingly, if there is anything unclear in the provided description.*	/1/ /28/	DR	Not applicable		OK
1.5	What type is the project? i) Project in existing facility or utilizing existing equipment(s) ii) Project is either a large scale project or a non-bundled small scale project with emission reductions exceeding 15 000 tCO_2e per year. In this case, a site visit must be performed. iii) Project is a bundled small scale project, with each project in the bundle with emission reductions not exceeding 15,000 tCO_2e per year. In such case the number of physical site visits may be based on sampling, if the sampling size is appropriately justified through statistical analysis. iv) The project is an individual small scale project activity with emission reductions not exceeding 15 000 tCO_2e per year. In this case, DOE may not conduct a physical site visit as appropriate. v) Greenfield project	/1//16/ /28/	DR	The project is a small scale project activity with the ex-ante annual emission reduction of 12,373 tCO2e, which is within the eligibility limit of a small-scale project activity.		OK
1.6	How was the design of the project assessed? i) Physical site inspection	/1/	DR	A site visit for the project activity has been		OK

ii) Reviewing available designs and feasibility studies *If a physical site inspection is not undertaken, justify why no site visit was undertaken:*	/28/		conducted on 17 January 2014, in which the project design has been checked and consistent with the feasibility study report.		
1.7 Does the project qualify as a small scale GS project activity?	/1//16/ /28/	DR	The project is a small scale project activity with the ex-ante annual emission reduction of 12,373 tCO2e, which is within the eligibility limit of a small-scale project activity.		OK
1.8 Is the small scale project activity a debundled component of a larger project activity?	/1//16/ /28/	DR	The Validation Team has checked the GS project pipeline and CDM project pipeline and confirms that the project activity is not a debundled component of a large-scale project activity.		OK
1.9 Are the Parties and project participants (PP) listed in the 1st page and section A.4 of the PDD correctly and is this information consistent with the contact details provided in Appendix 1 of the PDD?	/1/	DR	Yes.		OK
2. Baseline and Monitoring Methodology Check					
2.1 Has the baseline scenario been constructed in a conservative manner (i.e. assumptions are made explicitly and choices are substantiated)?	/1//16/	DR	Yes		
2.2 Does the PDD use the latest version of the methodology and the latest interpretation form the EB at the time of first submission to the GS?	/1//16/	DR	Yes. The PDD has used the methodology AMS-I.D Version 17, which is the latest version at the time of first submission to the GS.		OK
2.3 Does the PDD describe the baseline methodology?	/1//16/	DR	Yes.		OK

2.6 Does the PDD provide evidence based on which “common practice” of the technology used can be assessed?	/1//16/	DR	N/A, the “common practice” analysis is not required for small scale projects under CDM rules.		OK
2.7 Does the PDD address leakage issues as part of the baseline and project boundary?	/1//16/	DR	Yes.		OK
2.8 Does the project apply the methodology that results in the lowest baseline emission?	/1//16/	DR	Yes.		OK
2.9 Are all likely baseline scenarios developed and quantified in the PDD?	/1//16/	DR	Yes		
2.10 Are there any material uncertainties over the numerical data sets applied (e.g. generator efficiencies, and fuel types and resulting emission factors, etc.)?	/1//16/	DR	No, there is no material uncertainty over the numerical data sets applied.		OK
2.11 Is there a systematic referencing to publicly available information or to expert or expert opinions?	/1//16/	DR	Yes.		OK
2.12 Is information verifiably presented with a sufficient degree of detail and transparency?	/1//16/	DR	Yes.		OK
2.13 Is it fully transparent from the PDD which sets of data were selected based on the prerogative of conservativeness?	/1//16/	DR	Yes.		OK
2.14 Does the PDD include full references to sources of data used?	/1//16/	DR	Yes.		OK
2.15 Are data uncertainties clearly stated, if possible, with associated margins of error?	/1//16/	DR	Not applicable.		OK
3. Project Eligibility					

3.1 Has the correct project size been selected?	/1//16/ /28/	DR	The project is a small scale project activity with the ex-ante annual emission reduction of 12,373 tCO2e, which is within the eligibility limit of a small-scale project activity.		OK
3.2 Does a written statement (e.g. in the PDD) clearly describe that the project is not a de-bundled part of a large project activity?	/1/	DR I	Yes, it is confirmed in the PDD that the project is not a de-bundled part of a large scale project.		OK
3.3 If there is an applicable cap-and-trade scheme in the project's host country, has an arrangement been made to cancel allowances in the applicable scheme?	/1//3/	DR I	Not applicable since the proposed project has not involved in any applicable cap-and-trade scheme in China.		OK
3.4 Does the project clearly demonstrate its eligibility under Gold Standard?	/1//3/ /4//5/	DR	Yes.		OK
3.5 Does the project reduce an applicable GHG?	/1//3/ /4//5/	DR	Yes. The project will reduce CO_2 emission by replacing electricity generated by fossil fuel power plants.		OK
3.6 Does the project clearly demonstrate that no ODA has been used under the condition that the credits coming out of the project are transferred to the donor country?	/1//3/ /4//5/	DR	CR1 The ODA declaration was not identified under the Annex I of GS passport based on the ODA Declaration Template in the Annex D of Toolkit version 2.2, in which the project developer shall declare the project's non-use of ODA.	~~CR1~~	OK
3.7 Does the project apply the correct project cycle (regular vs. prefeasibility assessment)?	/1//3/ /4//5/	DR	Yes.		OK
3.8 Is the project being registered under any other certification scheme for the same or overlapping crediting periods?	/1//3/ /4//5/	DR www	No, the Validation Team did not reveal that the project has been registered under any other certification scheme for the same or overlapping crediting periods.		OK

4. Additionality					
4.1 Gold Standard Criteria on Additionality					
4.1.1 Has the PP selected and applied the correct tool for demonstrating additionality?	/1//12/	DR	Yes. The project meets the requirement of "Guideline on the demonstration of addtionality of small scal project", and it is automatically additional.		OK
4.1.2 Is the line of argumentation used by the PP to demonstrate additionality correct?	/1//12/	DR	Yes.		OK
4.1.3 Are the references used to demonstrate additionality up-to-date and reliable?	/1//12/	DR	Yes.		OK
4.1.4 Has the PP compared the proposed project activity with normal practice in the region (especially if similar projects have already been implemented on a commercial basis in the region)?	/1//12/	DR	Not applicable since common practice analysis is not required for small scale CDM projects under CDM rules.		OK
4.1.5 Are assumptions (qualitative or quantitative) used to demonstrate additionality conservative?	/1//12/	DR	Not applicable.		OK
4.2 Investment analysis					
4.2.1 Are all sources of revenues (including savings) have been considered in the PDD and all calculations?	/1//12/	DR	Not applicable. The project applys "Guideline on the demonstration of addtionality of small scal project", and it is automatically additional.		OK
4.2.2 Is the type of investment analysis selected correctly in the PDD? Is the choice of benchmark analysis, investment comparison or simple cost analysis correct?	/1//12/	DR	Not applicable. The project applys "Guideline on the demonstration of addtionality of small scal project", and it is automatically additional.		OK

4.2.3 Is the selected financial indicator chosen and applied correctly? Is it on equity/project basis? Before/after tax? Is the financial indicator in correspondence with the benchmark?	/1//12/	DR	Not applicable. The project applys “Guideline on the demonstration of addtionality of small scal project”, and it is automatically additional.		OK,
4.2.4 Is the guidance on IRR calculation and assessment correctly applied?	/1//12/	DR	Not applicable.		OK
4.2.5 In case project participants use values from Feasibility Study Reports (FSR) is it possible to verify that the period between the FSR date and investment decision was reasonably short and FSR values did not change materially?	/1//12/	DR	Not applicable.		OK
4.2.6 Are all the values consistent between FSR and PDD and are inconsistencies properly justified?	/1//12/	DR	Not applicable.		OK
4.2.7 Were all the values from FSR applicable and valid at the time of the investment decision?	/1/ /12//28/	DR	Not applicable.		OK
4.2.8 Is it reasonable to assume that no investment would be made at a rate of return lower than the benchmark by, for example, assessing previous investment decisions by the project participants or some verifiable circumstances that have led to a change in the benchmark?	/1/ /12/ /28/	DR	Yes		OK
4.4 Common practice analysis					
4.4.1 If the PPs claim in the PDD that the project activity is the “first of its kind”, is it justified?	/1/ /12/	DR	Not applicable as the project is a small-scale project activity.		OK

4.4.2 Are the geographical boundaries of the project activity identified correctly?	/1/ /12/	DR	Not applicable as the project is a small-scale project activity.		OK
4.4.3 Does the PDD provide an explanation why this region was selected and deemed more appropriate and is this explanation traceable and reliable?	/1/ /12/	DR	Not applicable as the project is a small-scale project activity.		OK
4.4.4 Are there similar operational project activities, other than CDM activities, "widely observed and commonly carried out" in the defined region?	/1/ /12/	DR	Not applicable as the project is a small-scale project activity.		OK
4.4.5 In case there are similar commercially operated project activities, other than CDM activities, already "widely observed and commonly carried out" in the defined region, are there essential distinctions between the CDM project activity and the other similar activities?	/1/ /12/	DR	Not applicable as the project is a small-scale project activity.		OK
5. GHG Emission Reduction Estimation Check					
5.1 Are all calculations applied and documented according to the selected methodology and in a complete and transparent manner to calculate emission reductions from the project activity? 5.1b) Are correct units applied and consistency between parameter dimensions and parameter value ensured? *See also Question 4.1.b) with respect to consistency of parameter values between calculation spreadsheets and PDD.*	/1//2/ /10//24/	DR	Yes. Both ex-ante and ex-post parameters are applied correctly and the ER calculation is carried out in a complete and transparent manner.		OK

5.2 In case the methodology allows a selection between different options for equations or parameters, has adequate justification been given and have the correct equations and parameters been used, in accordance with the methodology selected?	/1//2/ /4//5/ /8//10/	DR	Yes, adequate justification has been given and correct equations and parameters have been used in accordance with the applied methodology.		OK
5.3 In case some data and parameters will not be monitored throughout the crediting period, but have already been determined and fixed, are all data sources, assumptions and calculations correct, applicable to the proposed project activity and conservative?	/1//2/ /5//10/	DR	Yes.		OK
5.4 In case data and parameters will be monitored on implementation and hence become available only after validation of the project activity, are the estimates provided in the PDD for these data and parameters reasonable?	/1//2/ /5//10/	DR	Yes		OK
5.5 Have the major risks and uncertainties, which can influence the emission reduction estimates, been identified and addressed in the PDD?	/1//2/ /5//10/	DR	Yes		OK
5.6 Are the calculations documented according to the approved methodology and in a complete and transparent manner in calcualting the project emissions? Have conservative assumptions been used when calculating the project emissions?	/1//2/ /5//10/	DR	Not applicable. There is no project emission for this project.		OK
5.7 Are uncertainties in the project emission estimates properly addressed?	/1//2/ /5//10/	DR	Not applicable. There is no project emission for this project.		OK

5.8 Has the leakage been identified and calculated according to the approved methodology?	/1//2/ /5//10/	DR	Yes.		OK
5.9 Have the leakage been addressed in complete, conservative and substantiated manner?	/1//2/ /5//10/	DR	Yes		OK
5.10 Are uncertainties in the leakage emission estimates properly addressed?	/1//2/ /5//10/	DR	Not applicable. There is no project emission for this project.		OK
6. Sustainability Assessment					
6.1 Is “Do no harm” assessment based on accurate information?	/3//4//5/ /52//53/	DR I	CR2 The supporting documents need to be provided to justify that the project complies with the items “Labour Standard” and “Anti-Corruption” of safeguarding principles under “Do no harm” assessment.	~~CR2~~	OK
6.2 Has a sustainable development matrix been developed? If yes, is it prepared according to the guidance under GS Toolkit Section 2.4.2, Table 3.2 and Annex I?	/3//4//5/	DR	CAR1 The chosen parameter for SD indicator”Biodiversity” in section F.2 and sectionG of Passport is not compliance with Annex I of GS Toolkit version2.2.		OK
6.3 Is the matrix based on existing sources of information (data from existing reports, results from stakeholder consultation, experiences with similar projects in similar situations, expert judgement if data are unavailable or are of poor quality, etc)?	/3//4//5/	DR	Yes		OK

6.4 Are data and expert opinions presented in a sufficient degree of detail and transparency? Are they verifiable?	/3//4//5/	DR	Yes		OK
6.5 Are data uncertainties clearly stated with associated margins of error?	/3//4//5/	DR	Yes		OK
6.6 Is 'scoring' reproducible and verifiable?	/3//4//5/	DR	Yes		OK
6.7 Are at least two of the sub-totals (categories) positive? Is the third sub-total at least neutral?	/3//4//5/	DR	Yes		OK
6.8 Is there a clear explanation on 'how the matrix was completed together with the stakeholders'?	/3//4//5/	DR	Yes		OK
7. Gold Standard Criteria for Stakeholder Consultation					
7.1 Stakeholder Consultation					
7.1.1 Have PPs fulfilled the GS requirements, set out in GS Toolkit Section 2.6 and 2.10, regarding stakeholder consultation?	/3//4//5/	DR I	LSC is not applicable for the retroactive cycle project activity		OK
7.1.2 Has an Invitation tracking table been filled out?	/3//4//5/	DR I	Same as above		OK
7.1.3 Are copies of invitations published/sent out available?	/3//4//5/	DR I	Same as above		OK
7.1.4 Is a non-technical summary included in the Local Stakeholder Consultation report?	/3//4//5/	DR I	Same as above		OK
7.1.5 Is a participant list available?	/3//4//5/	DR I	Same as above		OK

7.1.6 Are stakeholder evaluation forms available?	/3//4//5/	DR I	Same as above		OK
7.1.7 Are minutes of the meeting(s) available?	/3//4//5/	DR I	Same as above		OK
7.1.8 Has due account been made on comments received?	/3//4//5/	DR I	Same as above		OK
7.1.9 If stakeholders required a revisit of the sustainable development assessment, has this been done?	/3//4//5/	DR I	Same as above		OK
7.1.10 Is the consolidated sustainable development matrix presented based on own 'preliminary' scoring and the matrix from the outcome of the blind stakeholder exercise?	/3//4//5/	DR	Same as above		OK
7.2 Stakeholder Feedback Round					
7.2.1 Is there evidence clearly showing that the latest version of the complete PDD (including the EIA, if applicable) was made publicly available for a period of two months prior to completion of the validation in a readily accessible form?	/3//4//5/	DR	The latest version of the complete PDD has been made publicly available since 08 January 2014.		OK
7.2.2 Is there evidence clearly showing that the non-technical summary of the project (in appropriate local language(s)) was made publicly available for a period of two months prior to completion of the validation in a readily accessible form?	/3//4//5/	DR	Yes		OK

7.2.3 Is there evidence clearly showing that all relevant supporting information (if available, in appropriate local language(s)) was made publicly available for a period of two months prior to completion of the validation in a readily accessible form?	/3//4//5/	DR	Not applicable		OK
7.2.4 Does the Passport include a description of the procedure followed to invite comments, including addressing all the details of the oral hearing such as place, date, participants, language, local or national GS NGO supporters, etc.?	/3//4//5/	DR	CR3 Please describe how the stakeholder feedback round was organised, what the outcomes were and how you followed up on the feedback in section E.2 of Passport with supporting documents.	~~CR3~~	OK
7.2.5 Does the Passport include all written or oral comments received?	/3//4//5/	DR	Please refer to CR3	~~CR3~~	OK
7.2.6 Does the Passport include the argumentation on whether or not comments are taken into account and the respective changes to the project design?	/3//4//5/	DR	Please refer to CR3. Furthermore, CR4 PP shall indicate the discussion on continuous input/grievance mechanism in section E.3 of Passport.	~~CR3~~ ~~CR4~~	OK
8. Pre-Feasibility Assessment					
8.1 Has the feedback from GS been followed-up?	/3/	DR I	PFA result is positive since the project has already started a period of 2 months SFR.		OK
9. Monitoring Requirements and Monitoring Plan					
9.1 Monitoring requirements on sustainability					
9.1.1 Are chosen parameters relevant to the indicators?	/1//3/	DR	Yes		OK

9.1.2 Is the sustainability monitoring plan unambiguous about who will monitor with what frequency?	/1//3/	DR	Yes		OK
9.1.3 Is there any concern regarding the feasibility of the plan?	/1//3/	DR	No		OK
9.2 Monitoring plan					
9.2.1 Are all parameters required by the selected approved methodology or tool identified and listed in the PDD? Note: not all methodologies indicate monitoring parameters in tabular form or by reference to the variables used in formulae; Nonetheless, all parameters indicated in the methodology and applicable to the project must be listed in the PDD, omissions due to non-applicability be justified.	/1//8//10/	DR	Yes		OK
9.2.2 Is the measurement method clearly stated for each value to be monitored and deemed appropriate? Does the monitoring plan record data in the original form as generated, providing QA/QC procedures to be used on the measurement method?	/1//8//10/	DR	Yes, the measurement method has been clearly stated for each value.		OK
9.2.3 Are values of the ex-ante parameters / monitoring parameters selected correctly and conservative in accordance to methodology or tools?	/1//8//10/	DR	Yes, the values of all ex-ante parameters have been selected correctly and conservative.		OK

9.2.4 Is the measurement equipment for each parameter described and deemed appropriate? Are the locations of all measurement equipment clearly identified and consistently described, incl. process flow-charts contained in the PDD?	/1//8//10/	DR	Yes		OK
9.2.5 Is the measurement accuracy addressed and deemed appropriate?	/1//8//10/	DR	Yes		OK
9.2.6 Are procedures in place on how to deal with erroneous measurements and are the corrective actions identified?	/1//8//10/	DR	Yes		OK
9.2.7 Is the frequency of measurement identified and deemed appropriate?	/1//8//10/	DR	Yes		OK
9.2.8 Is the monitoring plan documented according to the approved methodology and in a complete and transparent manner?	/1//8//10/	DR	Yes		OK
9.2.9 Are the sampling, measurement methods and procedures defined?	/1//8//10/	DR	Not applicable		OK
9.2.10 Are procedures identified for maintenance of monitoring equipment and installations?	/1//8//10/	DR	Yes		OK
9.2.11 Are the equipment calibration intervals identified and justified?	/1//8//10/	DR	Yes		OK
9.2.12 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	/1//8//10/	DR	Yes		OK

9.2.13 Are the monitoring arrangements described in the monitoring plan feasible within the project design?	/1//8//10/	DR	Yes		OK
9.2.14 Are the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, sufficient to ensure that the emission reductions achieved by / resulting from the project activity can be reported ex post and verified?	/1//8//10/	DR	Yes		OK
9.2.15 Do the PPs make provisions for personnel training needs?	/1//8//10/ /30/	DR	Yes		OK
9.2.16 Is the authority and responsibility of overall project management clearly described?	/1//8//10/	DR	Yes		OK
9.2.17 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	/1//8//10/	DR	Not applicable		OK
9.2.18 Are procedures identified for review of reported results/data?	/1//8//10/	DR	Yes		OK
9.2.19 Is the data archiving period for this project activity stated in the PDD and appropriate? Note: All archived monitoring data, required for verification and issuance, should be kept for at least two years after the end of the crediting period or the last issuance of CER.	/1//8//10/	DR	Yes		OK
9.2.20 Is the monitoring parameters for all project emissions captured?	/1//8//10/	DR	Yes		OK

9.2.21 Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later?	/1//8//10/	DR	Yes		OK
9.2.22 Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/1//8//10/	DR	Yes		OK
10. Environmental Impact Assessment					
10.1 Does the project activity conform to host country (local, regional or national) requirements concerning environmental impact assessment?	/1//3//23/ /26//27/	DR I	Yes, the development of project activity is in line with host country's requirement.		OK
10.2 For micro-scale projects, is there an owner declaration that guarantees that the project complies with local environmental regulations?	/1//3//23/ /26//27/	DR	Not applicable since the project is not micro-scale project.		OK
10.3 Is the documentation supplied by the PPs regarding environmental impacts relevant and accurately reflected in the PDD?	/1//3//23/ /26//27/	DR I	Yes		OK
10.4 Is an environmental impact assessment (EIA) required for the project activity?	/1//3//23/ /26//27/	DR I	Yes, EIA is required and approved by local authorities.		OK
10.5 Does the PDD include a brief description of the environmental effects of the project, including transboundary?	/1/	DR	Yes, the PDD includes a brief description of the environmental effects of the project.		OK
10.6 Are those effects properly addressed in the design of the project activity?	/1//3//28/	DR	Yes		OK

Table 2: List of Corrective Action Requests(CAR) and Clarification Requests(CR)				
No.	**Observation (CAR/CR)**	**Reference**	**Summary of project owner response**	**Validation team conclusion**
1.	CAR1 The chosen parameter for SD indicator"Biodiversity" in section F.2 and sectionG of Passport is not compliance with Annex I of GS Toolkit version2.2.	6.2	The chosen parameter for SD indicator" Biodiversity" was revised to "Affected plants and animals", and the related explanation was revised correspondingly.	OK. The chosen parameter has been revised as "Affected plants and animals, which is in line with Annex I of GS Toolkit version2.2. This indicator is scored as neutral which is considered reasonable. CAR1 is therefore closed.
2.	CR1 The ODA declaration was not identified under the Annex I of GS passport based on the ODA Declaration Template in the Annex D of Toolkit version 2.2, in which the project developer shall declare the project's non-use of ODA.	3.6	The declaration of non-use of ODA was added in the annex 1 of the passport.	OK. The signed ODA declaration has been attached under the Annex 1 of GS passport. CR1 is closed.
3.	CR2 The supporting documents need to be provided to justify that the project complies with the items "Labour Standard" and "Anti-Corruption" of safeguarding principles under "Do no harm" assessment.	6.1	The do no harm assessment were further substantiated, the supporting evidences including Employee contract and Company's rules and regulations were provided.	OK. By verifying the employee contract and company ruels and regulations/52//53/, the validation team is able to confirm that the regulations established by the project developer can ensure the proposed project complies with the items "Labour Standard" and "Anti-Corruption" of safeguarding principles under "Do no harm" assessment. CR2 is closed.
4.	CR3	7.2.4	The detail information about the stakeholder	OK.

	Please describe how the stakeholder feedback round was organised, what the outcomes were and how you followed up on the feedback in section E.2 of Passport with supporting documents.	7.2.5 7.2.6	feedback round was added in section E.2 of Passport, and supporting documents were provided.	The methods and procedure to invite comments from the stakeholders during the SFR process has been clearly described in the updated GS passport. The evidence is deemed sufficient. CR3 is therefore closed.
5.	CR4 PP shall indicate the discussion on continuous input/grievance mechanism in section E.3 of Passport.	7.2.6	The discussion on continuous input/grievance mechanism was added in section E.3 of Passport.	OK. Section E.3 of Passport has been fulfilled and the continuous input/grievance measures are deemed reasonable. CR4 is therefore closed.

Appendix B

CERTIFICATES OF COMPETENCE

Qualification

GONG, Jing /

Emission Trading
United Nations Framework Convention on Climate Change

Auditor No.:
(AuditorenRegNr)

Appointed: (Zugelassen)	☒ ja	Qualification Level: (Qualifikationsstufe)	Lead Auditor
External: (Externer)	☐ ja	Add. reviewer: (Zusätzlicher Prüfer)	☐ yes
EAC Scopes: (EAC Branchen)	CDM 01 - Energy industries (renewable - / non-renewable sources)		
Add. qualification: (zus. Qualifikation)			
First Appointment: (Erstberufung)	04/17/2012	Valid to: (Gültig bis)	04/16/2015

Remarks:	TA 1.2
Languages:	Chinese English

Experience Exchange

Date	Location	Remarks	Accredita

Monitoring

Latest Monitoring: (letzte Beurteilung)	Next Monitoring: (nächste Beurteilung)

Remarks:

View / Edit Monitoring

History of scope allocation

Date:	2012-07-18
Change:	EAC CDM added
By:	Praveen Urs
Reason:	

History

Created:	04/17/2012 09:39:15 AM	Jing Gong/Chn/TUV
Modified:	03/10/2014 10:02:09 AM	Jing Gong/Chn/TUV
	12/09/2013 10:50:37 PM	Jing Gong/Chn/TUV
	08/02/2013 05:43:29 PM	Jing Gong/Chn/TUV
	08/02/2013 05:43:24 PM	
	08/02/2013 05:43:24 PM	
	08/02/2013 05:43:21 PM	
	06/27/2013 10:51:00 AM	
	04/22/2013 03:51:06 PM	
	04/08/2013 04:17:13 PM	
	09/28/2012 02:09:20 PM	
	07/18/2012 04:38:44 PM	
	04/20/2012 08:45:56 PM	
	04/20/2012 08:44:15 PM	
	04/17/2012 09:39:30 AM	

Export to ICMS

Last Export:

Qualification

Zhu, Jiang /

Emission Trading
United Nations Framework Convention on Climate Change

Auditor No.:
(AuditorenRegNr)

Appointed: (Zugelassen)	☒ ja	Qualification Level: (Qualifikationsstufe)	Lead Auditor
External: (Externer)	☐ ja	Add. reviewer: (Zusätzlicher Prüfer)	☒ yes
EAC Scopes: (EAC Branchen)	CDM 01 - Energy industries (renewable - / non-renewable sources) CDM 04 - Manufacturing industries		
Add. qualification: (zus. Qualifikation)			
First Appointment: (Erstberufung)	03/08/2009	Valid to: (Gültig bis)	03/07/2015

Remarks:	CDM 01: valid for TA 1.1, 1.2 CDM 04: valid for TA 4.5 - Other WHR and Fuel Switch + Part Time TR
Languages:	Chinese English

Experience Exchange

Date	Location	Remarks	Accredita
2011-06-18	Beijing	Beijing CDM Seminar-EB61/62	United Nations Framework Convention Change
2010-12-21	Beijing	GC CDM Auditor Experience Exchange, Beijing, 2010-12-21to23	United Nations Framework Convention on Climate Change

Monitoring

Latest Monitoring: (letzte Beurteilung)	Next Monitoring: (nächste Beurteilung)

Remarks:

History of scope allocation

Date:	2009-03-08
Change:	EAC CDM added
By:	Manfred Brinkmann
Reason:	

History

Created:	03/20/2008 01:56:52 PM	Daxun Li/Bj/Chn/TUV
Modified:	09/28/2012 11:52:16 AM	Praveen Urs/Chn/TUV
	09/28/2012 11:27:35 AM	Daxun Li/Chn/TUV
	03/12/2012 03:05:17 PM	Manfred Brinkmann/Jpn/TUV
	03/07/2012 02:06:06 PM	
	01/13/2011 03:24:11 PM ZE9	
	01/13/2011 03:22:23 PM ZE9	
	11/10/2010 06:24:28 PM ZE9	
	11/10/2010 06:23:35 PM ZE9	
	03/20/2008 01:57:07 PM	

Export to ICMS

Last Export:

Qualification

Tang, Walter /

Emission Trading
United Nations Framework Convention on Climate Change

Auditor No.:
(AuditorenRegNr)

Appointed: (Zugelassen)	☒ ja	Qualification Level: (Qualifikationsstufe)	Lead Auditor
External: (Externer)	☐ ja	Add. reviewer: (Zusätzlicher Prüfer)	☒ yes
EAC Scopes: (EAC Branchen)	CDM 01 - Energy industries (renewable - / non-renewable sources) CDM 02 - Energy distribution CDM 03 - Energy demand CDM 13 - Waste handling and disposal CDM 04 - Manufacturing industries		
Add. qualification: (zus. Qualifikation)			
First Appointment: (Erstberufung)	10/11/2011	Valid to: (Gültig bis)	09/11/2015

Remarks:	Appointed as Technical Reviewer for TA 1.1, 1.2, 2.1, 2.2, 3.1 Direct work experience. TA 4.1, 4.3, 4.5, 13.1 based on Annex D of the Accrediation Standard
Languages:	Chinese simplified English

Experience Exchange

Date	Location	Remarks	Accredita

Monitoring

Latest Monitoring: (letzte Beurteilung)	Next Monitoring: (nächste Beurteilung)

Remarks:

History of scope allocation

Date:	2012-02-13
Change:	EAC CDM added
By:	Praveen Urs
Reason:	

Date:	2012-02-13
Change:	EAC CDM, CDM, CDM, CDM added
By:	Praveen Urs
Reason:	

History

Created:	12/06/2011 05:00:51 PM	Walter Tang/Chn/TUV
Modified:	11/01/2013 02:50:03 PM	Henri Phan/Chn/TUV
	07/06/2012 04:47:48 PM	Nelly Yong/MY/TUV
	07/02/2012 03:08:57 PM	Walter Tang/Chn/TUV
	07/02/2012 03:08:48 PM	
	05/15/2012 03:30:46 PM	
	02/13/2012 08:00:10 PM	
	12/06/2011 05:01:30 PM	

Export to ICMS

Last Export: