

VERIFICATION REPORT OF “THREE GORGES NEW ENERGY JIUQUAN CO., LTD GUAZHOU 100MW SOLAR POWER PROJECT”



Document Prepared By RINA Services S.p.A. (RINA)

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Work Carried Out By	
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Summary:

RINA Services S.p.A. (RINA), commissioned by Climate Bridge (Shanghai) Ltd, has verified of the greenhouse gas emission reductions reported for the project activity “ Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” in China, for the period 30/08/2015 to 31/12/2017, with regard to the relevant requirements for VCS and CDM activities. The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS and CDM requirements in order to be certified.

The VCS project was validated by TUV NORD CERT GmbH (validation report N° 8000447954 – 15/077, version 01 issued on 01/06/2015 and it was registered with the VCS project ID 1444.

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 16.0, Consolidated baseline methodology for grid-connected electricity generation from renewable sources of 28/11/2014 and the monitoring plan included in the registered VCS Project Description, version 02 of 22/05/2015.

During the verification process, 3 Corrective Action Requests (CARs) and 1 Clarification Request (CL) are identified related to the monitoring, implementation or operations of the proposed VCS project activity (Monitoring Report version 01 of 14/09/2018) in relation to all relevant VCS and UNFCCC requirements for the VCS and all relevant host Party criteria and the applied baseline and monitoring methodology; all of these CARs and CLs have been resolved and a detailed resolution process is included in Appendix B of this report.

In conclusion, it is RINA's opinion that the project activity “ Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project”, in “China”, as described in the Monitoring Report version 03 of 18/10/2018, meets all relevant requirements for VCS activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 16.0 of 28/11/2014. Hence RINA is able to certify that the emission reductions from the project during the monitoring period 30/08/2015 to 31/12/2017 amount to 132,027 tCO₂e.

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1 INTRODUCTION

1.1 Objective

The objective of the verification is to have an independent review ex post determination by a Designated Operational Entity (DOE) of the monitored reductions in GHG emissions that have occurred as a result of the VCS project activity during a defined monitoring period. Certification is the written assurance by the DOE that, during a specific time period, a proposed VCS project activity achieved the reductions in anthropogenic emissions by sources of GHGs as verified.

1.2 Scope and Criteria

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- to verify that reported GHG emission data is sufficiently supported by evidence.

Verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable UNFCCC criteria for CDM and VCS in order to be certified.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

The VCS criteria refer to VCS standard: VCS Version 3.7 and VCS Program Guide: VCS Version 3.7.

As the VCS recognizes the CDM as a GHG Program that meets its VCU Verification Criteria, this verification report thus only addresses VCS specific and unique criteria in terms of project design, applicability to the adopted methodology and additionality that have not been so far addressed in the validation report as per CDM requirements.

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

1.3 Level of Assurance

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent RINA instructions.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for VCS validation and verification.

The verification team and the technical reviewers consist of the following personnel:

Role	Last Name	First Name	Country
Team Leader/Verifier/Technical Expert in TA1.2	LIU	Huifeng	China
Technical Reviewer	Menon	Rekha	India

1.4 Summary Description of the Project

The main information of the project is summarized in the table below.

Project Participant(s)	Three Gorges New Energy Jiuquan Co., Ltd.		
Project Title	Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project		
Location of the project	Solar Power Industry Zone, Guazhou County, Jingyuan City, Gansu Province of China		
Methodology(ies)	"ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 16.0 of 28/11/2014		
Sectoral Scope(s)	01	RINA's Technical Area(s)	1.2 Energy generation from renewable energy sources
Registered VCS-PD	Version 02 of 22/05/2015		
Project ID	1444		
Starting date of the crediting period	30/12/2013		
Project's crediting period	30/12/2013 to 29/12/2023		
Commission date	30/12/2013		
Monitoring period	30/08/2015 to 31/12/2017		
Project documentation link	https://vcsprojectdatabase.org/#!/projects/st_1444/so_/di_/np_		
Purpose of the project activity	The project activity is a newly built grid-connected solar photovoltaic power plant with installed capacity of 100.39 ¹ MWp, which is located in Solar Power Industry Zone, Guazhou County, Jingyuan City, Gansu Province of China. Power generated by the project replaces part of electricity generated by fossil-fuel dominated Northwest Power Grid (NWPG), thus the project achieves GHG emission reductions.		

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification was conducted using RINA procedures in line with the requirements specified in the latest version of the VCS Standard, the latest version of the VCS Program Guide and relevant decisions of the VCSA and applying standard auditing techniques.

The verification consisted of the following phases:

- Document review;

¹ The total installed capacity of the Solar Photovoltaic Modules is 100.39 MW (=250W*294,315 + 255W*105,144), while the capacity of inverters and box transformers is 100MW.

- Interviews;
- Site inspection;
- Resolution of findings;
- Eligibility for validation activities.

The following sections outline each step in more detail.

2.2 Document Review

The monitoring report, version 01 of 14/09/2018, version 02 of 27/09/2018 and version 03 of 18/10/2018/03/, the emission reduction calculations provided in the form of a spreadsheet, ER calculation spreadsheet, dated 14/09/2018 and 18/10/2018/04/, were assessed as part of the verification. In addition the VCS-PD/02/ in particular the baseline estimations and the monitoring plan, the validation report, version 01 of 01/06/2015/14/ for the project were reviewed.

The following table lists the documentation that was reviewed during the verification.

/01/	VCSA: VCS Verification Report Template, version 3.4 of 19/10/2016
/02/	Climate Bridge Ltd.: Project Description for project activity “Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” in China, version 02 of 22/05/2015
/03/	Climate Bridge (Shanghai) Ltd.: Monitoring Report for project activity “Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” in China, version 01 of 14/09/2018, version 02 of 27/09/2018 and version 03 of 18/10/2018 related to the monitoring period 30/08/2015 to 31/12/2017
/04/	Climate Bridge (Shanghai) Ltd.: ER calculation spreadsheet, dated 14/09/2018 and 18/10/2018
/05/	VCSA: VCS Project Description Template, version 3.3 of 19/10/2016
/06/	VCSA: VCS Monitoring Report Template, version 3.4 of 19/10/2016
/07/	VCSA: VCS Program Guide, version 3.7 of 21/06/2017
/08/	VCSA: VCS Standard, version 3.7 of 21/06/2017
/09/	VCSA: VCS Program Definitions, version 3.7 of 21/06/2017
/10/	VCSA: VCS Registration and Issuance Process, version 3.8 of 21/06/2017
/11/	VCSA: VCS Validation and Verification Manual, version 3.2
/12/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 01.0 of 03/03/2017
/13/	CDM Executive Board: Baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 16.0 of 28/11/2014
/14/	TUV NORD CERT GmbH: validation report for project activity “Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” in China, version 01 of 01/06/2015
/15/	Three Gorges New Energy Jiuquan Co., Ltd. & Gansu Power Company: Power purchase agreement (PPA), dated 12/2013
/16/	State Bureau of Quality and Technical Supervision: JJG596-2012, “Verification Regulation of Electrical Meters for Measuring Alternating-current Electrical Energy”, dated 08/10/2012
/17/	Gansu Electrical Energy Measuring Centre: calibration certificates for M1, dated

	14/11/2014, 14/11/2015, 14/11/2016 and 14/11/2017
/18/	Three Gorges New Energy Jiuquan Co., Ltd.: main meter records of exported and imported electricity, covering the period from 30/08/2015 to 31/12/2017
/19/	Three Gorges New Energy Jiuquan Co., Ltd. & Gansu Power Company: electricity transaction notes for exported electricity and imported electricity, covering the period from 30/08/2015 to 31/12/2017
/20/	I-REC: Official website: http://www.irecstandard.org

2.3 Interviews

The key personnel interviewed and the main topics of the interviews are summarized in the table below.

	Date	Name and Role	Organization	Topic
/a/	18/09/2018	Mr. Xuelong Lin, Project Manager	Three Gorges New Energy Jiuquan Co., Ltd.	General description of the project activity, operational and management structure Data collection and archiving QA/QC procedure and data uncertainty Information flows for generating, aggregating and reporting the monitoring parameters Cross-check of information in the monitoring report and data source
/b/	18/09/2018	Mr. Zhiwen Gao, Project Manager	Climate Bridge (Shanghai) Ltd	Preparation of the Monitoring Report (MR), calculation of the ERs Monitoring plan and management procedure Training on the staff of the hydropower plant Data collection procedure Technical equipment, calibration and monitoring observation

2.4 Site Inspections

On 18/09/2018, RINA visited Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project located at Solar Power Industry Zone, Guazhou County, Jingyuan City, Gansu Province of China. During the on-site assessment of the project RINA assessed the implementation and operation of the proposed project activity, had no problem to access the equipments and were able to verify directly the photovoltaic modules, inverters, box transformers, other equipments, systems and processes, RINA also reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment including calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

The objective of this phase of the verification is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the monitoring report and emission reductions.

A corrective action request (CAR) is raised if one of the following occurs:

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

A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A forward action request (FAR) is raised during verification for actions if the monitoring and reporting require attention and/or adjustment for the next monitoring period.

CARs, CLs and FARs identified are included in Appendix B of this report.

2.5.1 Forward Action Requests

Not applicable since no forward action requests are raised during this verification.

2.6 Eligibility for Validation Activities

Not applicable since RINA holds the accreditation for validation for sectoral scope 1 which the VCS project activity belongs to.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project also participated in another international renewable energy scheme: I-REC, the detailed information can be accessed through: <http://www.irecstandard.org/20/>;

During this monitoring period, the project has sought to register some of the electricity generated under I-REC, the detailed information are listed in the following table:

Details of the project		Monitoring periods for I-REC	Details of I-REC	
Project title	Device ID		Volumes (MWh)	Issue ID
Guazhou Solar	GUAZSOL1	2015/09/01~2015/12/31	27,654	PPENG-2016-0525-0434-37
Guazhou Solar	GUAZSOL1	2016/01/01~2016/04/30	32,351	PPENG-2016-0525-0448-09
Guazhou Solar	GUAZSOL1	2016/05/01~2016/05/12	3,564	PPENG-2017-0110-0231-58
Guazhou Solar	GUAZSOL1	2017/01/01~2017/01/11	2,826	PPENG-2017-0705-0901-32
Guazhou Solar	GUAZSOL1	2017/01/12~2017/01/12	221	PPENG-2017-0713-0155-07

Therefore, the emission reductions generated during the above periods (01/09/2015 to 31/12/2015, 01/01/2016 to 12/05/2016 and 01/01/2017 to 12/01/2017) are not claimed for VCUs. Besides I-REC, the project hasn't participated in any other GHG programs (CDM, GS, etc.) The review of the VCS project description and the subsequent follow-up interviews have provided RINA with sufficient evidence to determine the fulfilment of stated criteria. In RINA's opinion, the project meets all relevant VCS Standard version 3.7/08/ requirements and the relevant host country criteria and is eligible to participate under the VCS Program.

3.2 Methodology Deviations

There is no methodology deviations applied to the project.

3.3 Project Description Deviations

There is no project design deviations applied to the project activity as confirmed by the onsite visit.

3.4 Grouped Project

It is not a grouped project as confirmed through the VCS-PD/02/ and the onsite visit.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

RINA has performed a site visit to verify the real implementation of the project against the description in the registered VCS-PD/02/ and found that: 100 sets of power generation units (sub-systems) with the unit installed capacity of 1MW are in place as described in the registered VCS-PD, and the total installed capacity of the project activity is 100.39MWp (The total installed capacity of the Solar Photovoltaic Modules is 100.39 MW (=250W*294,315 + 255W*105,144), while the capacity of inverters and box transformers is 100MW), which can be confirmed through the observation of the nameplates of the solar photovoltaic modules, the inverters and the box transformers during the onsite visit. The detailed technical parameters are listed in the following tables:

Photovoltaic Modules	CS6P-250P	CS6P-255P
Manufacturer	Changshu Artes sunshine Power Technology Co., Ltd.	
Quantity	294,315	105,144
Rated maximum power (Wp)	250	255
Rated Power Voltage (V)	30.1	30.2
Rated Power Current (A)	8.30	8.43
Open circuit voltage (V)	37.2	37.4
Life time (years)	25	25
Decay rate in 25 years (%)	≤ 20	≤ 20

Conversion Efficiency (%)	15.54	15.54
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Inverter	SG500MX	EP-0500-A
Manufacturer	Sungrow Power Supply Co., Ltd.	Wuxi Sineng New Energy Co., Ltd
Quantity	98	102
Rated output Power (kW)	500	500
Rated output Voltage (V)	3 ~ 315	315
Rated output frequency (Hz)	50	50
Max. output current (A)	1,008	1,008

Box transformer	ZGS-Z.G-1000/38.5	YBF-1000/40.5	ZGSF11-Z.G-1000/35
Manufacturer	Ningbo Tian'an Transformer Co., Ltd.	Sunel Transformer Co., Ltd.	Jiangsu Huapeng Transformer Co., Ltd.
Quantity	40	30	30
Rated capacity (kVA)	1,000	1,000	1,000
Rated Voltage (V)	38,500±2×2.5/315/315	40,500	38,500±2×2.5/315/315

The project activity started operation on 30/12/2013 as already verified during the validation stage/14/. Other facilities and equipments such as the transmission lines, the substations, etc. as mentioned in the registered VCS-PD are also in place and operated by the PP as per the description in the registered VCS-PD. All the generation systems (including the photovoltaic modules, the inverters and the box transformers) and other equipments were in normal operation at the time of the on site visit by RINA.

As shown in the power line diagram in the MR/03/ and based on the site visit, the electricity generated by the project is transformed to 35kV by box transformers, connected to the onsite substation via 35kV lines, and then transformed to 110kV through the two main transformers before delivered to Bulongji 330kV Substation of the grid company and finally to NWPG. For monitoring, two bi-directional meters M1 and M2 with accuracy of 0.2s are installed to monitor the electricity delivered to the grid by the project ($EG_{export,y}$) and the electricity imported from the grid by the project ($EG_{import,y}$). Meter M2 is installed at the Bulongji substation, and meter M1 is installed at the onsite 110kV substation. Meter M1 is owned, operated and maintained by the project owner and meter M2 is owned, operated and maintained by the grid company. Since meter M2 is out of project owner's reach, the readings from meter M1 are used for ER calculation, and when M1 is out of order, the readings from meter M2, which are provided by the grid

company only under such circumstances, are used instead, which is in compliance with the description in the registered VCS-PD/02/.

During the site visit, no changes have been observed or identified which may impact the additionality as there was no change in the effective output capacity, no addition of component nor extension of technology, no addition nor removal of project sites since there is only one site of the project activity, no change of values of the actual operational parameter relevant to determination of emission reductions which are within the control of the PP; no change has been observed or identified that may impact the scale of the project activity or applicability of baseline and monitoring methodology ACM0002 version 16.0/13/.

In conclusion, RINA is able to confirm that the implementation and operation of the project during this monitoring period is consistent with the registered VCS-PD; the information provided in the MR is also in accordance with the description of the registered VCS-PD. There are no material discrepancies between project implementation and the project description, nor any material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

According to the applied methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 16.0/13/, the emission reductions have been calculated based on the following formula:

$$ER_y = BE_y - PE_y$$

Where:

ER_y is the emission reductions;

BE_y is the baseline emissions;

PE_y is the project emissions which is 0 as per the applied methodology ACM0002 version 16.0/13/ and the registered VCS-PD/02/ since it is a renewable power generation project.

No leakage emissions are considered as per the adopted methodology ACM0002 version 16.0/13/ and the registered VCS-PD/02/. The emissions potentially arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport etc.) are neglected.

$$BE_y = EG_{\text{facility},y} \times EF_{\text{grid},CM,y}$$

Where:

$EG_{\text{facility},y}$ is the quantity of net electricity generation supplied by the project activity to the grid in year y;

$EF_{\text{grid},CM,y}$ is the baseline emission factor for NWPG during this monitoring period;

RINA confirm that appropriate methods and formulae for calculating baseline emissions and project emissions have been followed.

During this monitoring period, the validated and registered monitoring plan was found to be in accordance with the applied monitoring methodology, ACM0002 version 16.0/13/. All monitoring parameters, monitoring and calibration procedures follow the methodology requirements.

The following parameters have been monitored in accordance with the monitoring plan in the registered VCS-PD/02/.

Data and parameters fixed ex-ante

DATA/PARAMETER Unit	Source of data	Reported value for the project period	Assessment/Observation
$EF_{\text{grid},CM,y}$	Data from registered VCS-	0.8311 tCO ₂ e/MWh	This is an ex-ante fixed value for the first crediting period as

	PD/02/ and validation report/14/		per the registered VCS-PD, which has been justified and validated by validation DOE to follow the applied methodology and tool and already approved by VCSA.
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Data and parameters monitored ex-post

Data/Parameter	EG _{facility,y}														
Data Unit	MWh														
Description	Quantity of net electricity generation supplied by the project plant to the grid in year y														
Source of data to be used	Calculated as the difference of EG _{export,y} and EG _{import,y}														
Value of monitored parameter for the monitoring period	<table border="1"> <thead> <tr> <th>Period</th><th>Value</th></tr> </thead> <tbody> <tr> <td>30/08/2015~31/12/2015</td><td>0.000</td></tr> <tr> <td>01/01/2016~29/05/2016</td><td>0.000</td></tr> <tr> <td>30/05/2016~31/12/2016</td><td>60,089.480</td></tr> <tr> <td>01/01/2017~29/01/2017</td><td>0.000</td></tr> <tr> <td>30/01/2017~31/12/2017</td><td>98,769.020</td></tr> <tr> <td>Total</td><td>158,858.500</td></tr> </tbody> </table>	Period	Value	30/08/2015~31/12/2015	0.000	01/01/2016~29/05/2016	0.000	30/05/2016~31/12/2016	60,089.480	01/01/2017~29/01/2017	0.000	30/01/2017~31/12/2017	98,769.020	Total	158,858.500
Period	Value														
30/08/2015~31/12/2015	0.000														
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30/05/2016~31/12/2016	60,089.480														
01/01/2017~29/01/2017	0.000														
30/01/2017~31/12/2017	98,769.020														
Total	158,858.500														
Monitoring equipment	Not applicable														
Accuracy of the monitoring equipment	Not applicable														
Measuring/Reading/Recording frequency	This parameter is measured continuously and recorded on a monthly basis, which is in accordance with the registered monitoring plan/02/ and the monitoring methodology ACM0002, version 16.0/13/.														
Calculation method (if applicable)	$EG_{facility,y} = EG_{export,y} - EG_{import,y}$														
Calibration															
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	Not applicable														
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	Not applicable														
Calibration certificates	Not applicable														

Data/Parameter	EG _{export,y}
Data Unit	MWh
Description	Quantity of the electricity delivered to the grid by the project in year y

Source of data to be used	Main meter (M1) records/18/																																						
Value of monitored parameter for the monitoring period	The actual quantity of the electricity delivered to the grid by the project is listed below: <table border="1"> <thead> <tr> <th>Period</th><th>Value</th></tr> </thead> <tbody> <tr> <td>30/08/2015~31/12/2015</td><td>27,699.600</td></tr> <tr> <td>01/01/2016~29/05/2016</td><td>41,295.140</td></tr> <tr> <td>30/05/2016~31/12/2016</td><td>61,116.000</td></tr> <tr> <td>01/01/2017~29/01/2017</td><td>7,787.000</td></tr> <tr> <td>30/01/2017~31/12/2017</td><td>100,245.000</td></tr> <tr> <td>Total</td><td>238,142.740</td></tr> </tbody> </table> During the periods 01/09/2015~31/12/2015, 01/01/2016~12/05/2016 and 01/01/2017~12/01/2017, the electricity generated has been registered under I-REC and are not claimed for VCUs; Besides; for convenience and conservativeness, the electricity generated during the periods of 30/08/2015~31/12/2015, 01/01/2016~29/05/2016 and 01/01/2017~29/01/2017 are not claimed for VCUs. The electricity generated which are not claimed for VCUs are listed below: <table border="1"> <thead> <tr> <th>Period</th><th>Value</th></tr> </thead> <tbody> <tr> <td>30/08/2015 - 31/12/2015</td><td>27,699.600</td></tr> <tr> <td>01/01/2016 - 29/05/2016</td><td>41,295.140</td></tr> <tr> <td>01/01/2017 - 29/01/2017</td><td>7,787.000</td></tr> <tr> <td>Total</td><td>76,781.740</td></tr> </tbody> </table> After exclusion of the above electricity, the $EG_{\text{export},y}$ is listed below: <table border="1"> <thead> <tr> <th>Period</th><th>Value</th></tr> </thead> <tbody> <tr> <td>30/08/2015~31/12/2015</td><td>0.000</td></tr> <tr> <td>01/01/2016~29/05/2016</td><td>0.000</td></tr> <tr> <td>30/05/2016~31/12/2016</td><td>61,116.000</td></tr> <tr> <td>01/01/2017~29/01/2017</td><td>0.000</td></tr> <tr> <td>30/01/2017~31/12/2017</td><td>100,245.000</td></tr> <tr> <td>Total</td><td>161,361.000</td></tr> </tbody> </table>	Period	Value	30/08/2015~31/12/2015	27,699.600	01/01/2016~29/05/2016	41,295.140	30/05/2016~31/12/2016	61,116.000	01/01/2017~29/01/2017	7,787.000	30/01/2017~31/12/2017	100,245.000	Total	238,142.740	Period	Value	30/08/2015 - 31/12/2015	27,699.600	01/01/2016 - 29/05/2016	41,295.140	01/01/2017 - 29/01/2017	7,787.000	Total	76,781.740	Period	Value	30/08/2015~31/12/2015	0.000	01/01/2016~29/05/2016	0.000	30/05/2016~31/12/2016	61,116.000	01/01/2017~29/01/2017	0.000	30/01/2017~31/12/2017	100,245.000	Total	161,361.000
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30/08/2015 - 31/12/2015	27,699.600																																						
01/01/2016 - 29/05/2016	41,295.140																																						
01/01/2017 - 29/01/2017	7,787.000																																						
Total	76,781.740																																						
Period	Value																																						
30/08/2015~31/12/2015	0.000																																						
01/01/2016~29/05/2016	0.000																																						
30/05/2016~31/12/2016	61,116.000																																						
01/01/2017~29/01/2017	0.000																																						
30/01/2017~31/12/2017	100,245.000																																						
Total	161,361.000																																						
Monitoring equipment	Data were measured by a bidirectional main meter M1 installed at the onsite 110kV substation. The detailed information of M1 are listed in the following table: <table border="1"> <tbody> <tr> <td>Meter</td><td>M1</td></tr> <tr> <td>Type</td><td>WU.TE432q</td></tr> <tr> <td>SN</td><td>41600811</td></tr> <tr> <td>Accuracy</td><td>0.2s</td></tr> </tbody> </table>	Meter	M1	Type	WU.TE432q	SN	41600811	Accuracy	0.2s																														
Meter	M1																																						
Type	WU.TE432q																																						
SN	41600811																																						
Accuracy	0.2s																																						
Accuracy of the monitoring	The accuracy of M1 is in compliance with the registered VCS-																																						

equipment	PD/02/, and also in line with the national industrial standard JJG596-2012/16/.										
Measuring/Reading/Recording frequency	This parameter is measured continuously and recorded on a monthly basis, which is in accordance with the registered monitoring plan/02/ and the monitoring methodology ACM0002, version 16.0/13/.										
Calculation method (if applicable)	Not applicable										
Calibration											
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	The detailed information of the calibrations for main meter M1 are listed in the following table: <table border="1"> <tr> <td>Meter</td><td>M1</td></tr> <tr> <td>Calibration frequency</td><td>Annually</td></tr> <tr> <td>Calibration Entity</td><td>Gansu Electric Power Company Energy Measurement Center</td></tr> <tr> <td>Calibration date/17/</td><td>14/11/2014,14/11/2015, 14/11/2016,14/11/2017</td></tr> <tr> <td>Validity period</td><td>From 14/11/2014 to 13/11/2018</td></tr> </table> The calibration frequency of M1 is annually, which is in compliance with the registered VCS-PD/02/ and the national standard, JJG596-2012/16/. The calibration interval is 1 year in line with the monitoring plan of the registered VCS-PD/02/, and also in compliance with the national industrial standards JJG596-2012/16/.	Meter	M1	Calibration frequency	Annually	Calibration Entity	Gansu Electric Power Company Energy Measurement Center	Calibration date/17/	14/11/2014,14/11/2015, 14/11/2016,14/11/2017	Validity period	From 14/11/2014 to 13/11/2018
Meter	M1										
Calibration frequency	Annually										
Calibration Entity	Gansu Electric Power Company Energy Measurement Center										
Calibration date/17/	14/11/2014,14/11/2015, 14/11/2016,14/11/2017										
Validity period	From 14/11/2014 to 13/11/2018										
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	The validity period of the calibration is from 14/11/2014 to 13/11/2018, which covers this entire monitoring period from 30/08/2015 to 31/12/2017. The calibration frequency of M1 is annually, which is in compliance with the registered VCS-PD/02/ and the national standard, JJG596-2012/16/.										
Calibration certificates	The calibration certificates/17/ were issued by a third party, Gansu Electric Power Company Energy Measurement Center, which confirm that M1 is in proper functioning during this monitoring period.										

Data/Parameter	EG _{import,y}								
Data Unit	MWh								
Description	Quantity of the electricity imported from the grid by the project in year y								
Source of data to be used	Main meter (M1) records/18/								
Value of monitored parameter for the monitoring period	The actual quantity of the electricity imported from the grid by the project is listed below: <table border="1"> <tr> <th>Period</th><th>Value</th></tr> <tr> <td>30/08/2015~31/12/2015</td><td>577.280</td></tr> <tr> <td>01/01/2016~29/05/2016</td><td>700.920</td></tr> <tr> <td>30/05/2016~31/12/2016</td><td>1,026.520</td></tr> </table>	Period	Value	30/08/2015~31/12/2015	577.280	01/01/2016~29/05/2016	700.920	30/05/2016~31/12/2016	1,026.520
Period	Value								
30/08/2015~31/12/2015	577.280								
01/01/2016~29/05/2016	700.920								
30/05/2016~31/12/2016	1,026.520								

	<table><tr><td>01/01/2017~29/01/2017</td><td>93.94</td></tr><tr><td>30/01/2017~31/12/2017</td><td>1,475.980</td></tr><tr><td>Total</td><td>3,874.640</td></tr></table>	01/01/2017~29/01/2017	93.94	30/01/2017~31/12/2017	1,475.980	Total	3,874.640							
	01/01/2017~29/01/2017	93.94												
	30/01/2017~31/12/2017	1,475.980												
	Total	3,874.640												
	During the periods 01/09/2015~31/12/2015, 01/01/2016~12/05/2016 and 01/01/2017~12/01/2017, the net electricity delivered to the grid has been registered under I-REC and are not claimed for VCUs; Besides; for convenience and conservativeness, the electricity imported from the grid during the periods of 30/08/2015~31/12/2015, 01/01/2016~29/05/2016 and 01/01/2017~29/01/2017 are not claimed for VCUs. The electricity imported from the grid which are not taken into account for calculation of VCUs are listed below:													
	<table><tr><td>Period</td><td>Value</td></tr><tr><td>30/08/2015 - 31/12/2015</td><td>577.280</td></tr><tr><td>01/01/2016 - 29/05/2016</td><td>700.92</td></tr><tr><td>01/01/2017 - 29/01/2017</td><td>93.94</td></tr><tr><td>Total</td><td>1,372.140</td></tr></table>	Period	Value	30/08/2015 - 31/12/2015	577.280	01/01/2016 - 29/05/2016	700.92	01/01/2017 - 29/01/2017	93.94	Total	1,372.140			
	Period	Value												
	30/08/2015 - 31/12/2015	577.280												
	01/01/2016 - 29/05/2016	700.92												
	01/01/2017 - 29/01/2017	93.94												
Total	1,372.140													
After exclusion of the above electricity, the $EG_{import,y}$ is listed below:														
<table><tr><td>Period</td><td>Value</td></tr><tr><td>30/08/2015~31/12/2015</td><td>0.000</td></tr><tr><td>01/01/2016~29/05/2016</td><td>0.000</td></tr><tr><td>30/05/2016~31/12/2016</td><td>1,026.520</td></tr><tr><td>01/01/2017~29/01/2017</td><td>0.000</td></tr><tr><td>30/01/2017~31/12/2017</td><td>1,475.980</td></tr><tr><td>Total</td><td>2,502.500</td></tr></table>	Period	Value	30/08/2015~31/12/2015	0.000	01/01/2016~29/05/2016	0.000	30/05/2016~31/12/2016	1,026.520	01/01/2017~29/01/2017	0.000	30/01/2017~31/12/2017	1,475.980	Total	2,502.500
Period	Value													
30/08/2015~31/12/2015	0.000													
01/01/2016~29/05/2016	0.000													
30/05/2016~31/12/2016	1,026.520													
01/01/2017~29/01/2017	0.000													
30/01/2017~31/12/2017	1,475.980													
Total	2,502.500													
Monitoring equipment	Data were measured by a bidirectional main meter M1 installed at the onsite 110kV substation. The detailed information of M1 are listed in the following table: <table><tr><td>Meter</td><td>M1</td></tr><tr><td>Type</td><td>WU.TE432q</td></tr><tr><td>SN</td><td>41600811</td></tr><tr><td>Accuracy</td><td>0.2s</td></tr></table>	Meter	M1	Type	WU.TE432q	SN	41600811	Accuracy	0.2s					
Meter	M1													
Type	WU.TE432q													
SN	41600811													
Accuracy	0.2s													
Accuracy of the monitoring equipment	The accuracy of M1 is in compliance with the registered VCS-PD/02/, and also in line with the national industrial standard JJG596-2012/16/.													
Measuring/Reading/Recording frequency	This parameter is measured continuously and recorded on a monthly basis, which is in accordance with the registered monitoring plan/02/ and the monitoring methodology ACM0002, version 16.0/13/.													
Calcualtion method (if	Not applicable													

applicable)											
Calibration											
Calibration frequency/interval Is the calibration interval in line with the monitoring plan of the PDD?	The detailed information of the calibrations for main meter M1 are listed in the following table: <table border="1"> <tr> <td>Meter</td><td>M1</td></tr> <tr> <td>Calibration frequency</td><td>Annually</td></tr> <tr> <td>Calibration Entity</td><td>Gansu Electric Power Company Energy Measurement Center</td></tr> <tr> <td>Calibration date/17/</td><td>14/11/2014,14/11/2015, 14/11/2016,14/11/2017</td></tr> <tr> <td>Validity period</td><td>From 14/11/2014 to 13/11/2018</td></tr> </table> The calibration frequency of M1 is annually, which is in compliance with the registered VCS-PD/02/ and the national standard, JJG596-2012/16/. The calibration interval is 1 year in line with the monitoring plan of the registered VCS-PD/02/, and also in compliance with the national industrial standards JJG596-2012/16/.	Meter	M1	Calibration frequency	Annually	Calibration Entity	Gansu Electric Power Company Energy Measurement Center	Calibration date/17/	14/11/2014,14/11/2015, 14/11/2016,14/11/2017	Validity period	From 14/11/2014 to 13/11/2018
Meter	M1										
Calibration frequency	Annually										
Calibration Entity	Gansu Electric Power Company Energy Measurement Center										
Calibration date/17/	14/11/2014,14/11/2015, 14/11/2016,14/11/2017										
Validity period	From 14/11/2014 to 13/11/2018										
Does the calibration cover the monitoring period? Has the calibration frequency been respected?	The validity period of the calibration is from 14/11/2014 to 13/11/2018, which covers this entire monitoring period from 30/08/2015 to 31/12/2017. The calibration frequency of M1 is annually, which is in compliance with the registered VCS-PD/02/ and the national standard, JJG596-2012/16/.										
Calibration certificates	The calibration certificates/17/ were issued by a third party, Gansu Electric Power Company Energy Measurement Center, which confirm that M1 is in proper functioning during this monitoring period.										

In conclusion, RINA is able to confirm that the monitoring has been implemented in full compliance with the registered MP and all the parameters listed in the registered MP have been sufficiently monitored.

The emission reduction calculations provided in the spreadsheet/04/ have been verified to be correct and in line with the registered VCS-PD/02/.

The emission reductions from the project for the monitoring period as reported in the monitoring report version 03/03/ is calculated to be 132,027tCO₂e. The reported emission reductions are 36.1% less than the estimated emission reduction of 206,508tCO₂e for the period as per the registered VCS-PD/02/.

The data presented in the monitoring report/03/ were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Sufficient evidence was presented and verified by RINA for the reported emission reductions as listed above.

4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

Data was collected based on a data management procedure as described in the registered VCS-PD/02/:

- Data of electricity supplied to and imported from the power grid is recorded monthly;
- The electricity transaction notes for exported and imported electricity/19/ are used for cross-check against the main meter records for exported and imported electricity/18/;

c) Quality of records of meter readings is assured by calibration of meters;

The monitoring and reporting of electricity data is in accordance with well established operational procedures. The site visit confirmed that the management system for the project is in place and can be traced, such as the monitoring procedure and monitoring management, emergency treatment procedure and competence criteria of relevant personnel involved in the project.

Cross-check reported data

EG_{export,y}: For the exported electricity, RINA has verified the data in monitoring report/03/ against the monthly records/18/ from the main meter M1, and further double-checked against the electricity transaction notes/19/ in this monitoring period, some minor differences are found between the main meter records and electricity transaction notes as there are some transmission line losses during the transaction, the conservative values (i.e. the smaller value) are adopted for the calculation of emission reductions, which was in line with the requirements of the registered monitoring plan/02/ and the applied monitoring methodology ACM0002 version 16.0/13/.

These supporting references and data for determining the quantity of electricity delivered to the grid by the project were found complete, accurate and reliable.

EG_{import,y}: For the imported electricity, RINA has verified the data in monitoring report/03/ against the monthly records/18/ from the main meter M1, and further double-checked against the electricity transaction notes/19/ in this monitoring period, some minor differences are found between the main meter records and electricity transaction notes as there are some transmission line losses during the transaction, the conservative values (i.e. the larger value) are adopted for the calculation of emission reductions, which was in line with the requirements of the registered monitoring plan/02/ and the applied monitoring methodology ACM0002 version 16.0/13/.

These supporting references and data for determining the quantity of electricity imported from the grid by the project were found complete, accurate and reliable.

EG_{facility,y}: please refer to parameters “**EG_{export,y}**” and “**EG_{import,y}**” above.

4.4 Non-Permanence Risk Analysis

Not applicable

5 SAFEGUARDS

5.1 No Net Harm

The project being a photovoltaic power project has done environmental impact assessment and socio-economic impact assessment in line with host country requirement and received environmental approval as already confirmed in the validation stage/14/. The measures as per impact assessment divided into two parts: construction stage and operational stage. The project is currently operational phase and all measures as per impact assessment have been implemented. Hence, there is no net harm from the project activity.

5.2 Local Stakeholder Consultation

Not applicable since this is verification of the second monitoring period. The stakeholder consultation conducted by PP during registration of the project activity has been outlined in the VCS PD/02/ and also the MR/03/.

6 VERIFICATION CONCLUSION

RINA Service Spa (RINA) has performed verification of the emission reductions reported for the project activity “Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” in China, for the period 30/08/2015 to 31/12/2017, with regard to the relevant requirements for VCS activities.

The project participants of the “Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” project are responsible for:

- the preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered project description version 02 of 22/05/2015
- the development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project

It is the responsibility of RINA to express an independent verification opinion about the project's conformity with the requirements of VCS and on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment RINA can confirm that:

- the project has been implemented and operated as per the registered VCS-PD;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS requirements;
- the monitoring is in place as per the applied baseline and monitoring methodology;
- the monitoring complies with the monitoring plan in the registered VCS-PD;
- the monitoring plan in the registered VCS-PD is as per the applied baseline and monitoring methodology.

It is RINA's opinion that the GHG emission reduction stated in the monitoring report version 03 of 18/10/2018 for the “Three Gorges New Energy Jiuquan Co., Ltd Guazhou 100MW Solar Power Project” project in China for the period 30/08/2015 to 31/12/2017 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology “ACM0002”, “ Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 16.0 of 28/11/2014 and the monitoring plan contained in the registered VCS-PD.

Hence RINA is able to certify that the emission reductions from the project during this monitoring period are as following:

Verification period: From 30/08/2015 to 31/12/2017

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
Year 2015 (30/08/2015 to 31/12/2015)	0	0	0	0
Year 2016	0	0	0	0

(01/01/2016 to 29/05/2016)				
Year 2016 (30/05/2016 to 31/12/2016)	49,940	0	0	49,940
Year 2017 (01/01/2017 to 29/01/2017)	0	0	0	0
Year 2017 (30/01/2017 to 31/12/2017)	82,087	0	0	82,087
Total	132,027	0	0	132,027

APPENDIX A: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MoV	Means of Verification
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PD	Project Description
PE	Project Emission
PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services S.p.A.
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
VER	Voluntary Emission Reductions
VVS	Validation and Verification Standard

APPENDIX B: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUEST

Table 1. CL from this verification

CL ID	1	Section no.	3.2	Date: 25/09/2018
Description of CL				
<i>The validity of calibrations for the electricity meter listed in the MR version 01 did not cover this monitoring period (30/08/2015 to 31/12/2017).</i>				
Project participant response				Date: 18/10/2018
<i>The validity of calibration for the electricity meter listed in the MR version 03 has covered this monitoring period (30/08/2015 to 31/12/2017).</i>				
Documentation provided by project participant				
<i>A calibration for the electricity meter whose validity is from 04/11/2014 to 13/11/2018 is provided.</i>				
DOE assessment				Date: 25/10/2018
The validity of calibrations for M1 has been revised in the MR version 03 and has now covered this monitoring period (30/08/2015 to 31/12/2017). Hence, CL1 is closed.				

Table 2. CAR from this verification

CAR ID	1	Section no.		Date: 25/09/2018
Description of CAR				
<i>The MR version 01 did not apply the latest template of VCS-MR version 3.4.</i>				
Project participant response				Date: 18/10/2018
<i>The MR version 03 has used the latest template of VCS-MR version 3.4</i>				
Documentation provided by project participant				
<i>the MR version 03</i>				

DOE assessment	Date: 25/10/2018
The latest VCS-MR template (version 3.4) has been applied in the revised MR version 03. Hence, CAR1 is closed.	

CAR ID	2	Section no.	3.2	Date: 25/09/2018
Description of CAR				
<i>The values of the parameters “EG_{facility,y}”, “EG_{export,y}” and “EG_{import,y}” are inconsistent between the MR version 01 and the monitoring records from meters.</i>				
Project participant response				Date: 18/10/2018
<i>In the MR version 03, the values of the parameters “EG_{facility,y}”, “EG_{export,y}” and “EG_{import,y}” are consistent with the monitoring records from meters</i>				
Documentation provided by project participant				
<i>Monitoring records form meter M1 and the situation introduction.</i>				
DOE assessment				Date: 25/10/2018
The values of the parameters “EG_{facility,y}”, “EG_{export,y}” and “EG_{import,y}” have been updated in the MR version 03. Hence, CAR2 is closed.				

CAR ID	3	Section no.	1.1/4.1/4.4	Date: 25/09/2018
Description of CAR				
<i>The amount of ERs is inconsistent between the MR version 01 and the ER calculation spreadsheet.</i>				
Project participant response				Date: 18/10/2018
<i>A new ER calculation spreadsheet has been given, and the amount of ERs in consistent between the MR Version 03 and the ER calculation spreadsheet.</i>				
Documentation provided by project participant				
<i>A new ER calculation spreadsheet and the MR version 03</i>				

DOE assessment	Date: 25/10/2018
The amount of ERs has been revised in both the MR version 03 and the ER spreadsheet, which are now consistent between each other. Hence, CAR3 is closed.	

Table 3. FAR from this verification

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



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Hui Feng Liu

è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITRP

per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal energy generation	1
1.2	Renewables	1
8.1	Mining and mineral processes	8
9.2	Iron, steel and Ferro alloy production	9
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
9.2	Iron, steel and Ferro alloy production	9
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

Responsabile di schema
 Scheme Leader
 Rita Valoroso

*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

RINA Services S.p.A. è accreditato/riconosciuto da
 RINA Services S.p.A. is accredited /recognized by

UNFCCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Rekha Menon

è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITRP

per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1
2.1	Electricity distribution	2
13.1	Solid waste and wastewater	13
13.2	Manure	13
14.1	Afforestation and reforestation	14

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

Responsabile di schema
 Scheme Leader
 Rita Valoroso

*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

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UNFCCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects

GHG_QUAL_CERT_EN_07_16 Voluntary(Certificate)

Page 1 of 1