



GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

PROJECT TITLE: InfraVest Taiwan Wind Farms Bundled
Project 2011-Taiwan

GOLD STANDARD PROJECT No.: 1001

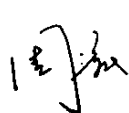
CCCI PROJECT REFERENCE: CCCI-GS-2016003

CLIENT NAME: South Pole Carbon Asset Management Ltd.

VERSION AND DATE: Version 02.1, 26/08/2016

CHINA CERTIFICATION CENTER, INC.

Floor 6 Taiji Commercial Building, No. 211 Beisihuan Zhonglu, Haidian District, Beijing, P.R. China

Project Name: InfraVest Taiwan Wind Farms Bundled Project 2011-Taiwan							
Certification body: China Certification Center, Inc.							
Client: South Pole Carbon Asset Management Ltd.							
Date of this revision: 26/08/2016	Version No.: 02.1						
Gold Standard Project No.: 1001	Methodology Applied: ACM0002, Version 13.0.0						
Monitoring Period: 01/04/2015 to 31/03/2016 (first and last days included)							
Verification Summary: China Certification Center, Inc. (CCCI) has performed the second periodic verification of InfraVest Taiwan Wind Farms Bundled Project 2011-Taiwan (hereafter referred as the Project), GS Project Number 1001, covering the monitoring period 01/04/2015 to 31/03/2016. The verification was performed on the basis of UNFCCC Methodology ACM0002 Version 13.0.0, Gold Standard criteria, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. The verification consisted of the following three phases: i) desk review of the project design, monitoring report and additional background documents; ii) on-site inspection and follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. CCCI has verified the project Monitoring Report version 3.0 dated 25/08/2016 /2/ for the monitoring period as indicated above. CCCI confirms that the Project is implemented as described in the registered Project Design Document for Gold Standard Voluntary Offset projects. Installed equipment being essential for generating emission reductions run reliably and are calibrated appropriately. The monitoring system is in place and the Project is generating GHG emission reductions as a GS project. CCCI can confirm that the GHG emission reductions are calculated without material misstatements. Our opinion relates to the Projects' GHG emissions and resulting GHG emission reductions reported and related to the validated and registered project baseline, monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CCCI confirms the following statement: <table border="1" data-bbox="427 1377 1204 1680"> <tr> <td>GHG emission reduction for Vintage of 01/04/2015 to 31/12/2015</td> <td>96,199 tCO₂e</td> </tr> <tr> <td>GHG emission reduction for Vintage of 01/01/2016 to 31/03/2016</td> <td>52,916 tCO₂e</td> </tr> <tr> <td>Total amount of GHG emission reductions achieved in the monitoring period from 01/04/2015 to 31/03/2016</td> <td>149,115 tCO₂e</td> </tr> </table>		GHG emission reduction for Vintage of 01/04/2015 to 31/12/2015	96,199 tCO ₂ e	GHG emission reduction for Vintage of 01/01/2016 to 31/03/2016	52,916 tCO ₂ e	Total amount of GHG emission reductions achieved in the monitoring period from 01/04/2015 to 31/03/2016	149,115 tCO ₂ e
GHG emission reduction for Vintage of 01/04/2015 to 31/12/2015	96,199 tCO ₂ e						
GHG emission reduction for Vintage of 01/01/2016 to 31/03/2016	52,916 tCO ₂ e						
Total amount of GHG emission reductions achieved in the monitoring period from 01/04/2015 to 31/03/2016	149,115 tCO ₂ e						
Work carried out by:	Team Leader: Mr. Luo Peng						
Technical Review by:	Ms. Li Yiting						
Name, position and signature of the approver of the verification and certification report	Mr. Zhou Hong, Director of GHG Department 						

Abbreviations

BE	Baseline emissions
CAR	Corrective Action Request
CCCI	China Certification Center, Inc.
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
DNA	Designated National Authority
EF	Emission factor
ETN	Electricity Transaction Note
FAR	Forward Action Request
GHG	Green House Gas(es)
GS	Gold Standard
IPCC	Intergovernmental Panel on Climate Change
LE	Leakage emissions
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring report
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
SD	Sustainable Development
TPG	TaiPower Grid
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Verification and Verification Standard

Table of Contents	Page
1. INTRODUCTION	4
1.1. Objective	4
1.2. Scope	4
1.3. GS Project Description	5
1.4. Verification Team	5
2. METHODOLOGY	6
2.1. Review of Documents	6
2.2. On Site Assessment	7
2.3. Resolution of Clarification, Corrective and Forward Action Requests	9
2.4. Internal Technical Review	10
3. VERIFICATION CONCLUSIONS.....	10
3.1. Assessment of remaining issues from the previous validation/verification period	10
3.2. Compliance of the project implementation with the registered project design document	11
3.3. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline	12
3.4. Compliance of monitoring activities with the registered monitoring plan	12
3.5. Compliance with the calibration frequency requirements for measuring instruments	18
3.6. Gold Standard requirements – Sustainable Development indicators	20
3.7. Assessment of data and calculation of emission reductions	22
3.8. Post-registration changes	24
4. VERIFICATION AND CERTIFICATION STATEMENT.....	26
5. COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS	27
6. DOCUMENTS REVIEWED OR REFERENCED	28
7. CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS	30

1. INTRODUCTION

South Pole Carbon Asset Management Ltd. has commissioned CCCI to verify the emission reductions of the GS project “InfraVest Taiwan Wind Farms Bundled Project 2011-Taiwan” (hereinafter referred to as “the Project”), for the monitoring period from 01/04/2015 to 31/03/2016, located in west Taiwan.

This report summarizes the findings of the verification of the Project, performed on the basis of Gold Standard (Version 2.2) requirements, UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1. Objective

The objective of the verification is to provide a through and independent third party assessment of the registered project activity. In particular, the assessment shall:

- (a) Ensure that all sustainability development (SD) indicators and mitigation measures have been monitored and implemented in accordance with the registered PDD or any approved revised PDD;
- (b) Ensure that the project activity has been implemented and operated as per the registered PDD or any approved revised PDD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- (c) Ensure that the monitoring report and other supporting documents provided are complete in accordance with the latest applicable version of the completeness checklist for requests for issuance of GHG emission reductions and verifiable and in accordance with applicable GS requirements;
- (d) Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan or any revised approved monitoring plan, and the approved methodology including applicable tool(s);
- (e) Evaluate both quantitative and qualitative information on emission reductions provided in the project documentation;
- (f) Evaluate the data collection system meets the requirements of the monitoring plan as per the applied methodology including applicable tool(s) and, where applicable, the applied standardized baseline.

1.2. Scope

The verification scope covers the relevant documents (e.g. the registered PDD, the Gold Standard Passport, the Monitoring Report, the emission reduction calculation spreadsheet, supporting documents available to the verifier and information collected through performing interviews and on-site assessment, GS’s tools and guidelines publicly available, relevant rules, including the host country legislation, etc.) to be independently reviewed, the project geographical locations to be visited on-site, the project relevant personnel to be interviewed with, and processes that are necessary to acquire objective evidence for the evaluation of the project compliance to the GS verification requirements .

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

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

1.3. GS Project Description

The Project is a bundled project composed of four wind farms projects:

Items	Capacity	Location	Geo-coordinates of the center
Fongwei Wind Farm	13.8MW (6x2.3MW)	Hsinfong Township, Hsinchu County	24°55'48"N 120°58'40"E
Longwei Wind Farm	44.1MW (18x2.3 MW + 3x0.9 MW)	Houlong Township, Miaoli County	24°36'41"N 120°44'13"E
Chungwei Wind Farm	29.9MW (13x2.3 MW), capacity addition to the existing grid-connected renewable power plant (project GS472)	Dajia and Da-An Townships, Taichung County	24°24'21"N 120°35'59"E
Tauwei Wind Farm	4.6MW (2x2.3 MW), capacity addition to the existing grid-connected renewable power plant (project GS612)	Guanyin Township (also called Hsinwu Wind Farm), Taoyuan County	25°02'43"N 121°04'21"E

The Project constructed and operated by InfraVest Wind Power Group (hereafter refer as "InfraVest"). The Project in total comprises 42 wind turbines and the total installed capacity of the bundled project is 92.4 MW. At full capacity, the aggregated output of the Project is expected to be 250,866 MWh/year, which is to be delivered to the state-owned power grid, Taipower grid ("TPG"), displacing part of the electricity supplied by the power grid currently dominated by fossil fuel-fired power plants. Accordingly, the Project will lead to carbon dioxide emission reduction. The annual emission reductions are estimated as 190,908 tCO₂e/year, and the total emission reductions for the second crediting period of 7 years are estimated as 1,336,356 tCO₂e.

Project's 1st crediting period: 01 January 2014 to 31 December 2020 (Renewable)

The Second Monitoring Period to be verified: 01 April 2015 to 31 March 2016 (first and last days included)

1.4. Verification Team

The verification team consists of the following personnel:

FUNCTION	NAME	TA 1.2	TASK PERFORMED*
----------	------	--------	-----------------

Team Leader	Mr. Luo Peng	☒	☒ DR ☒ SV ☒ RI ☐ TR
Internal Technical Reviewer (ITR)	Ms. Li Yiting	☒	☐ DR ☐ SV ☐ RI ☒ TR

*DR = Document Review; SV = On-site Visit; RI = Report issuance; TR = Internal Technical Review

Mr. Luo Peng is an experienced auditor for CDM projects. He received comprehensive training of CDM, has more than 6 years' experience in CDM projects and has participated in more than 100 CDM projects, including wind power, hydro power, biomass, municipal solid waste incineration projects. He has worked at all the stages in the process of CDM project, including validation and verification. Besides, he has also received GS trainings by web-seminar in 2012. And through WCD (World Commission on Dams) assessments on more than 10 big hydropower projects, he gained adequate knowledge and auditing skills on environmental impact, social-economic impact and sustainable development assessment. Before joining CCCI, Luo Peng worked with the world leading CDM development company Ecosecurities and the Designated Operational Entity ERM CVS.

Ms. Li Yiting has worked in CDM projects since 2006 and gained extensive experience in the development and implementation of CDM projects, working in the area of project-based mechanisms. Her background includes both project validation and verification, in different sectoral scopes, including wind power, hydro power, biomass, waste heat recovery in cement industry, coke oven gas recovery industry. From year 2009 onwards she has been involved in validation and verification of CDM projects and also as a technical reviewer.

2. METHODOLOGY

CCCI has assessed and determined that the implementation and operation of the project activity, and the steps taken to report emission reductions comply with the GS criteria, rules and relevant guidance provided by the GS Foundation or CDM-EB. The assessment involved a document review of relevant documentation as well as the on-site visits.

2.1. Review of Documents

A desk review of the MR (Version 1.0, dated 12/04/2016)/2/ and supporting documents were conducted by the verification team. The aim of the desk review of the documentation is to verify the completeness of the data and the information presented, to carry out the compliance check of the MR with respect to the monitoring plan, the applied methodology including applicable tool(s) and, where applicable, the applied standardized baseline. Particular attention was given to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures. The evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions was also conducted.

The verification team has checked for double counting by reviewing all relevant registries that could hold emission reductions from the project activity, such as CDM (<http://cdm.unfccc.int>), VCS (<http://www.v-c-s.org/>), CCER (<http://cdm.ccchina.gov.cn/ccer.aspx>), and confirmed the project has not been registered as CDM project or under other voluntary carbon crediting scheme.

The additional background documents related to the registered PDD /1/, validation report /4/, gold standard passport /6/ and etc., formed the basis of the final conclusion were as presented in Section 4 of this report.

Section 6 of this report contains a complete list of all documents and proofs reviewed by the verification team.

2.2. On Site Assessment

The verification team performed a site visit to the project sites from 26/04/2016 to 27/04/2016. During the site visit, the verification team interviewed with the relevant personnel and verified that the actual implementation of the project was as described in the registered PDD. This includes the review of the project operation based on the evidence of on-site observation and presented documents.

During the on-site assessment, the verification team has interviewed with key personnel of the project owner and the consultancy. The detail of the on-site assessment including the interviewees and the main topics of the interview are summarized in the following table.

Date: 26/04/2016 to 27/04/2016	
Organization: InfraVest Wind Power Group Person interviewed: Ms.Dong Rujuan, Manager (Administration Department) Mr. Yang Chengqin, EIA Manager (Development Department) Mr. Wang Hanzhong, Engineer (Construction and Operation Department) Mr. Nils Casemir, Director (Construction and Operation Department)	
Question 1: Please briefly introduce this project and the operation status of each wind farm.	Response: This project involves the development of four wind farms (Fongwei, Longwei, Chungwei, Tauwei wind farms), with total installed capacity of 92.4MW. The commissioning date for Fongwei, Longwei, Chungwei, Tauwei wind farms are from 26/09/2011, 27/04/2012, 31/10/2011, and 04/07/2011 respectively. The operation of those four wind farms was normal and no emergency occurred during this monitoring period.
Question 2: Please describe the monitoring system and data acquisition and process procedure of the Project.	Response: The monitoring of electricity export and import was performed according to the registered monitoring plan. For Fongwei Wind Farm, two bi-directional electricity meters are located in Fongwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at SongLin S/S Substation respectively. For Longwei Wind Farm: One bi-directional electricity meter is located in Longwei wind farm 69 kV Switchroom, primary side of the 22.8kV/69kV Transformer, and before connection to the Gongguan-Miaozi 69 kV line #1 connection station; and the other two meters are installed in Longwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at HouLong S/S Substation respectively

	For Chungwei Wind Farm: One bi-directional electricity meter is located in Chungwei wind farm 22.8 kV Switchroom, after the 22.8kV/69kV Transformer and before connection to Taipower 69 kV grid. Tauwei Wind Farm: One bi-directional electricity meter is located in Tauwei wind farm switchroom, before the electricity generated by Tauwei is connected with Guanyin wind farm, then to Taipower 161 kV grid. The total electricity exported to and imported from the grid by the project was monitored by above mentioned seven bidirectional meters. The readings of the meters are continuously monitored and monthly recorded by the PP and the grid company. The last day of each month is the cut-off time to calculate the monthly net electricity supplied to the grid by the Project. The grid company provided the PP with the electricity receipts monthly, which contain the electricity exported to and imported from the grid by the Project. After confirmation of the amount, the PP provided invoice to the grid company and archived the copy of these receipts. All the meters have been installed and calibrated as per relevant regulations.
Question 3: If sufficient trainings have been provided to the staff?	Response: Yes. The staffs here have accepted a series of trainings on the monitoring system, electricity transmission, plant operation, emergency and safety produces. These trainings have demonstrated the improvement of employment quality.
Question 4: How many jobs have been created? And were labor conditions in compliance with local labor laws and regulations?	Response: There are total 48 persons were employed by this project. The labor conditions, including working hours and salary, have been ensured to comply with local relevant laws and regulations.
Question 5: Is local bird population affected by the project operation?	Response: During this monitoring period, no death of birds was reported, and the bird population has not been affected by operation of this project.
Question 6: Are there any measures taken to mitigate the soil erosion caused by soil disturbance during the construction period?	Response: The re-plantation in the project area was performed, which can be observed onsite. The vegetation cover have been maintaining on the regular basis.

Date of interview: 26/04/2016 and 25/08/2016
Person interviewed: Mr. Hong Zhengyi, Village Mayor, Guike Village, Da'an District, Taichung County Mr. Peng Zhentian, Village Mayor, Datan Village, Guanyin District, Taoyuan City Mr. Xu Yu, Director of Haibao Community Development Association, Houlong Township, Miaoli

County Mr. Chen tuquan, Villager, Guike Village, Da'an District, Taichung County Mr. Lin yongfu, Villager, Haibao Village, Houlong Township, Miaoli County Mr. Lai Qinghai, Villager, Potou Village, Hsinfong Township, Hsinchu County Ms. Liu shuyuan, Villager, Datan Village, Guanyin Township, Taoyuan County Mr. Lin Qin, Villager, Datan Village, Guanyin Township, Taoyuan County Ms. Zhong Yijun, Datan Village, Guanyin Township, Taoyuan County	
Question 1: Were you informed the construction of the project during the planning phase? What is your opinion about the impact (positive and negative) of the Project? eg. air quality, noise, electromagnetic interference radiation and etc.	Response: Yes, the project developer has informed us about the construction of the project during the planning stage. The construction of wind farms is friendly to the environment since it is clean energy and it replaces coal fired power plant. So it actually improves the air quality. The wind turbine is a new scenery in the area, people enjoy to take pictures. The impact of the noise is minor. No noise is heard as the WTGs runs. The signal of mobile phone is not affected by the operation. So no impact has been experienced.
Question 2: Is local bird population affected by the project operation?	Response: No. There are no negative impacts on local bird population. No injuries to the birds have been observed.
Question 3: Are there any measures taken to mitigate the soil erosion caused by soil disturbance during the construction period?	Response: The re-plantation in the project area was performed by the Project Developer, which can be observed onsite. The vegetation cover have been maintaining on the regular basis.
Question 4: Does the project contribute to the local society in a sustainable way?	Response: Yes, the project generates clean energy. It also creates working opportunities for the local society, such as maintenance of re-plantation.
Question 5: Do you support the Project, and any other comments on the Project?	Response: Yes, I support the project, the project developer is doing great, and I have no more comments on the project.

2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to resolve identified issues that require further elaboration, research or expansion prior to CCCI's positive conclusion on the project implementation, monitoring practices and achieved emission reductions.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

- (a) Non-conformities with the monitoring plan, the methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;

- (b) Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- (c) Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- (d) Issues identified in a FAR during validation or previous verification 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 requirements have been met.

A Forward Action Request (FAR) may also be raised during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

2.4. Internal Technical Review

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

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

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

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

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

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

After the agreement of the responses to the Clarification Requests from the verification team as well as the PP(s), the finalized verification report is accepted for further processing.

3. VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring report and the findings from interviews during the follow up visit are described in this section of the report.

3.1. Assessment of remaining issues from the previous validation/verification period

After reviewing the validation report /4/, the verification team found one remaining issues were identified in the validation process:

FAR-1 Wind turbine ID numbers and meters to be installed will be clearly described in sections A.1 and B.7.3 and Figure B-1.

The verification team has checked the monitoring report, and confirmed the wind turbine ID numbers and meters installed has been clearly described in the MR.

And the construction of the last one wind turbine generator is planned to be completed by the end of June 2016, and then the WTG ID and meters added (if any) will be listed in the MR then. Thus, the FAR will be closed as the Project fully operated.

3.2. Compliance of the project implementation with the registered project design document

Means of verification	The verification team has performed an on-site inspection to verify if: a) All physical features (technology, project equipment, and monitoring and metering equipment) of the registered GS project activity are in place. b) The PP has operated the project as per the registered PDD. c) Information (data and variables) provided in the monitoring report that is different from that stated in the registered PDD, and has caused an increase in estimates of the emission reductions in the current monitoring period or is highly likely to increase the estimates of emission reductions in the future monitoring periods. During the on-site inspection, the verification team: • Walked through the project site and inspected the project facility and its operations; • Checked the Electricity line diagram /14/, and cross-checked it against the Power Purchase Agreement /15/ • Checked the installed equipment, including the monitoring instruments and wind turbines, their specifications, and cross-checked them against the PDD /1/, monitoring plan /1/, and the monitoring report /2/; • Interviewed the staff responsible for the monitoring and implementation of the project; • Reviewed the project webpage on the GS website; • Reviewed the relevant training materials and training records /10/; • Reviewed the electricity receipts /12/ and invoice /13/.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that: ✓ all physical features of the project activity have been fully implemented in accordance with the registered PDD /1/ and the monitoring equipment was installed as described in the registered PDD /1/; ✓ The actual operation of the GS project activity is implemented as per the registered PDD /1/ by the PP; ✓ Information (data and variables) provided in the monitoring report is in accordance with that stated in the registered PDD /1/.

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

Means of verification	The verification team has checked the monitoring plan in the registered PDD/1/ against the monitoring methodology ACM0002 and applicable tools.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that the monitoring plan in the registered PDD /1/, including data and parameters which are required to be monitored, monitoring and reporting procedures, measuring instruments, QA/QC procedures, complies with the applied monitoring methodology.

3.4. Compliance of monitoring activities with the registered monitoring plan

Overview of monitoring system

By site inspection and reviewing the Electricity line diagram /14/, the verification team confirmed the monitoring system as bellow, which is in compliance with the registered PDD /1/:

The monitoring system is established to monitor the Quantity of net electricity generation supplied to the Grid by the project activity in year y ($EG_{\text{facility},y}$) and the Quantity of net electricity generation supplied to the grid in year y by the project plant/unit that has been added under the project activity ($EG_{\text{PJ_Add},y}$). For the determination of $EG_{\text{facility},y}$ and $EG_{\text{PJ_Add},y}$, $EG_{\text{Export},y}$ and $EG_{\text{Import},y}$ shall be measured:

$$EG_{\text{facility},y} = EG_{\text{Export},y} - EG_{\text{Import},y} \text{ (for Fongwei and Longwei Wind Farms)}$$

$$EG_{\text{PJ_Add},y} = EG_{\text{Export},y} - EG_{\text{Import},y} \text{ (for Chungwei and Tauwei Wind Farms)}$$

Where

$EG_{\text{Export},y}$ = Quantity of electricity generation supplied by the project plant/unit to the grid in year y (MWh/y).

$EG_{\text{Import},y}$ = Quantity of electricity consumption of the project plant/unit from the grid in year y (MWh/y)

$EG_{\text{Export},y}$ and $EG_{\text{Import},y}$ are measured continuously by the seven bi-directional meters installed at the wind farms switchrooms, which are owned and supervised by Taipower. The meters locations and numbers of meters used for each wind farm are listed as below:

Fongwei Wind Farm:

Two bi-directional electricity meters are located in Fongwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at SongLin S/S Substation.

Longwei Wind Farm:

One bi-directional electricity meter is located in Longwei wind farm 69 kV Switchroom, primary side of the 22.8kV/69kV Transformer, and before connection to the Gongguan-Miaozi 69 kV line #1 connection station; and the other two meters are installed in Longwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at HouLong S/S Substation.

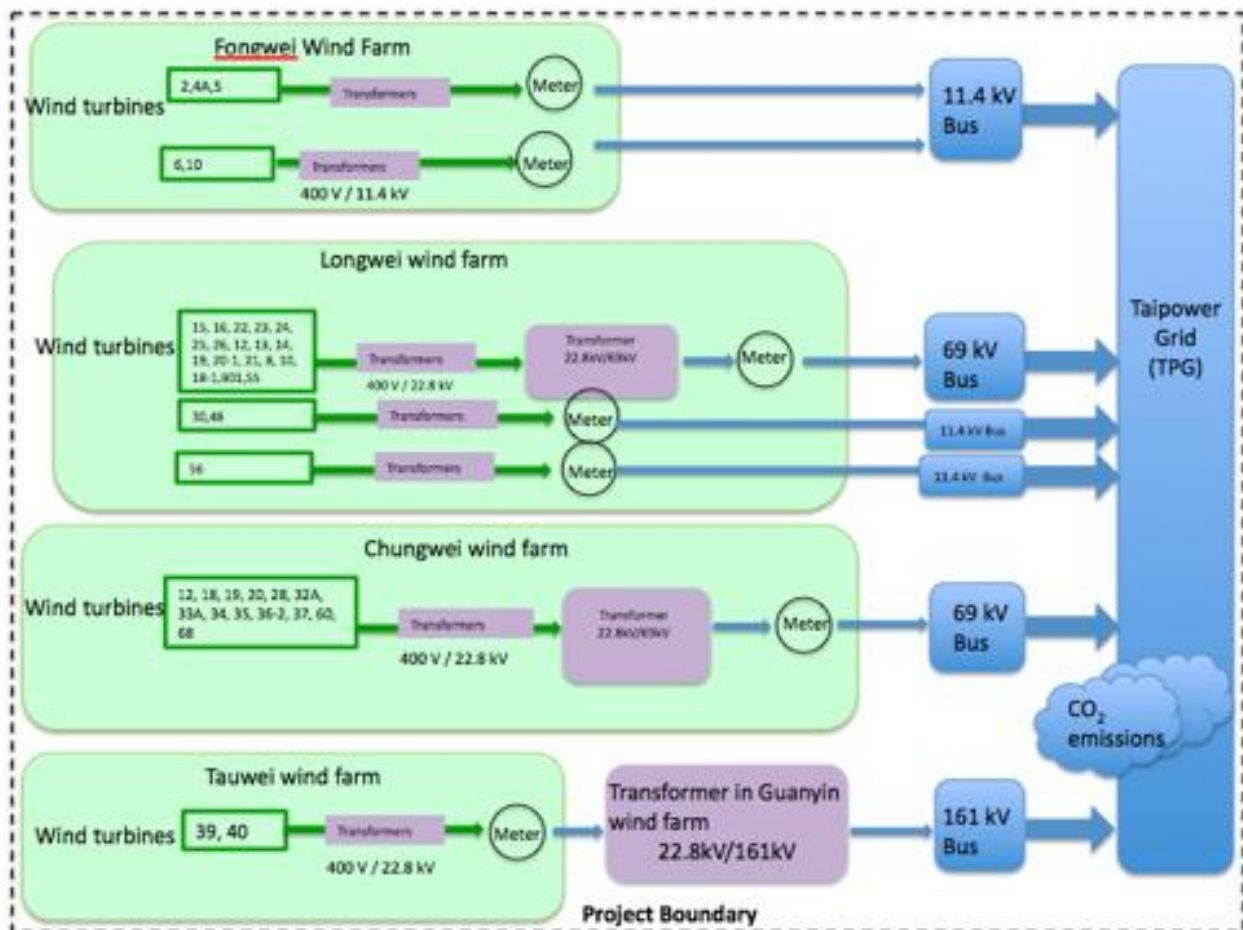
Chungwei Wind Farm:

One bi-directional electricity meter is located in Chungwei wind farm 22.8 kV Switchroom, after the 22.8kV/69kV Transformer and before connection to Taipower 69 kV grid.

Tauwei Wind Farm:

One bi-directional electricity meter is located in Tauwei wind farm switchroom, before the electricity generated by Tauwei is connected with Guanyin wind farm, then to Taipower 161 kV grid.

Please refer to the below diagrams for an overview on how the project activity is connected to the grid, and the location of the meters.



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

Data/parameter	Combined baseline emission factor ($EF_{grid, CM, y}$)
Means of verification	The data and parameter fixed is combined emission factor of TPG, which has been determined ex-ante in the registered PDD. The value of this parameter has been checked against the registered PDD /1/.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that the data and parameters fixed ex ante have been sufficiently monitored and correctly listed.

Data and parameters monitored

Data/parameter	Quantity of net electricity generation supplied to the Grid by the project activity in year y ($EG_{facility, y}$) Quantity of net electricity generation supplied to the grid in year y by the project plant/unit that has been added under the project activity ($EG_{PJ_Add, y}$)
Means of verification	<u>Measurement/reading/recording frequency</u> The monitoring plan /1/ requires this parameter to be continuously monitored and recorded monthly. The verification team checked the seven revenue meters, reviewed the monthly reports /11/ and confirmed that the measurements were continuously measured and recorded monthly as required by the monitoring plan /1/. <u>QA/QC procedures applied</u> QA/QC procedures conducted on site was verified via interviews with key personnels and review of following documents: • Monitoring Manual /16/ • Training records of the staffs /10/ • Monthly reports /11/ • electricity receipts /12/ • electricity invoice /13/ • Meter calibration reports /17/ • Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/ $EG_{facility, y}$ / $EG_{PJ_Add, y}$ is cross-checked against relevant electricity sales and purchase receipts /12/ and invoice /13/ from the grid for quality control. Calibration of Meters & Metering is implemented according to the Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/. The verification team confirmed that the QA/QC procedures applied is in accordance with the monitoring plan /1/. <u>Information flow</u> The flow of information from data generation, aggregation, to recording, calculation and reporting was verified by interviews with the key personnels and review of following documents: • Power Purchase Agreement /15/ • Monitoring Manual /16/ • Monthly reports /11/ • electricity receipts /12/ • electricity invoice /13/ Data generation: The seven bidirectional meters with accuracy class of 0.5 were installed at the wind farms' switchrooms for monitoring Electricity Export ($EG_{Export, y}$) and Electricity Import ($EG_{Import, y}$). Data recording: Readings from the seven meters were recorded remotely and digitally at the TPG's office (The Grid). The cut-off time of $EG_{Export, y}$ and $EG_{Import, y}$ is the last day

	of every month. After the digital data were incorporated into monthly electricity receipts, TPG sent the monthly electricity receipt to InfraVest (the project owner) for confirmation on the amount of both electricity exported and imported. After confirmation from InfraVest, the confirmed electricity exported to the grid was then considered as the basis on which TPG conducts the payment to InfraVest for purchasing electricity generated by the project, and InfraVest sent the invoice to TPG; the confirmed electricity imported is then considered as the basis on which InfraVest conducts the payment to TPG for electricity imported from TPG by the project, and TPG sent the invoice to InfraVest. The ER calculation is based on the electricity data in electricity receipts that are derived from the meter reading records. Data aggregation and calculation: $EG_{Export,y}$ is calculated by sum the electricity exported per month measured by the seven revenue meters over the monitoring period; $EG_{Import,y}$ is calculated by sum the electricity imported per month measured by the seven revenue meters over the monitoring period. $EG_{facility,y} / EG_{PJ_Add,y}$ is calculated by: $EG_{facility,y} / EG_{PJ_Add,y} = EG_{Export,y} - EG_{Import,y}$ Data reporting: Before the data being archived, these records are checked by the Operation Department Office of InfraVest to ensure the correctness.
Findings	The verification reviewed the monitoring report, and found that the cut-off time for monthly recording Electricity Export ($EG_{Export,y}$) and Electricity Import ($EG_{Import,y}$) was not specified. CL 1 was therefore raised. The PP clarified in the revised MR that the cut-off time is the last day of every month for the $EG_{Export,y}$ and $EG_{Import,y}$. The verification team interviewed the operation staffs and checked the monthly reports /11/, and electricity receipts /12/ and invoice /13/, and confirmed that the cut-off time for monthly recording Electricity Export ($EG_{Export,y}$) and Electricity Import ($EG_{Import,y}$) is the last day of every month. CL 1 is therefore closed.
Conclusion	The verification team confirms that: ✓ The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD /1/. ✓ The parameter required by the monitoring plan have been sufficiently monitored and correctly listed. The monitored data for required parameters have been verified by checking the whole information flow.

Data/parameter	Quantity of electricity generation supplied by the project plant/unit to the grid in year y ($EG_{Export,y}$)
Means of verification	<u>Measurement/reading/recording frequency</u> The monitoring plan /1/ requires this parameter to be continuously monitored and recorded monthly. The verification team checked the seven revenue meters, reviewed the monthly reports /11/ and confirmed that the measurements were continuously measured and recorded monthly as required by the monitoring plan /1/. <u>QA/QC procedures applied</u> QA/QC procedures conducted on site was verified via interviews with key personnels and review of following documents: • Monitoring Manual /16/ • Training records of the staffs /10/ • Monthly reports /11/ • electricity receipts /12/ • electricity invoice /13/ • Meter calibration reports /17/ • Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/

	$EG_{Export,y}$ is cross-checked against relevant electricity sales and purchase receipts /12/ and invoice /13/ from the grid for quality control. Calibration of Meters & Metering is implemented according to the Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/. The verification team confirmed that the QA/QC procedures applied is in accordance with the monitoring plan /1/. <u>Information flow</u> The flow of information from data generation, aggregation, to recording, calculation and reporting was verified by interviews with the key personnels and review of following documents: • Power Purchase Agreement /15/ • Monitoring Manual /16/ • Monthly reports /11/ • electricity receipts /12/ • electricity invoice /13/ Data generation: The seven bidirectional meters with accuracy class of 0.5 were installed at the wind farms' switchrooms for monitoring $EG_{Export,y}$. Data recording: Readings from the seven meters were recorded remotely and digitally at the TPG's office (The Grid). The cut-off time of $EG_{Export,y}$ is the last day of every month. After the digital data were incorporated into monthly electricity receipts, TPG sent the monthly electricity receipt to InfraVest (the project owner) for confirmation on the amount of both electricity exported and imported. After confirmation from InfraVest, the confirmed electricity exported to the grid was then considered as the basis on which TPG conducts the payment to InfraVest for purchasing electricity generated by the project, and InfraVest sent the invoice to TPG. The ER calculation is based on the electricity data in electricity receipts that are derived from the meter reading records. Data aggregation and calculation: $EG_{Export,y}$ is calculated by sum the electricity exported per month measured by the seven revenue meters over the monitoring period. Data reporting: Before the data being archived, these records are checked by the Operation Department Office of InfraVest to ensure the correctness.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that: ✓ The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD /1/. ✓ The parameter required by the monitoring plan have been sufficiently monitored and correctly listed. The monitored data for required parameters have been verified by checking the whole information flow.

Data/parameter	Quantity of electricity consumption of the project plant/unit from the grid in year y ($EG_{Import,y}$)
Means of verification	<u>Measurement/reading/recording frequency</u> The monitoring plan /1/ requires this parameter to be continuously monitored and recorded monthly. The verification team checked the seven revenue meters, reviewed the monthly reports /11/ and confirmed that the measurements were continuously measured and recorded monthly as required by the monitoring plan /1/.

	<u>QA/QC procedures applied</u> QA/QC procedures conducted on site was verified via interviews with key personnels and review of following documents: • Monitoring Manual /16/ • Training records of the staffs /10/ • Monthly reports /11/ • electricity receipts /12/ • electricity invoice /13/ • Meter calibration reports /17/ • Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/ EG_{Import,y} is cross-checked against relevant electricity sales and purchase receipts /12/ and invoice /13/ from the grid for quality control. Calibration of Meters & Metering is implemented according to the Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/. The verification team confirmed that the QA/QC procedures applied is in accordance with the monitoring plan /1/. <u>Information flow</u> The flow of information from data generation, aggregation, to recording, calculation and reporting was verified by interviews with the key personnels and review of following documents: • Power Purchase Agreement /15/ • Monitoring Manual /16/ • Monthly reports /11/ • electricity receipts /12/ • electricity invoice /13/ Data generation: The seven bidirectional meters with accuracy class of 0.5 were installed at the wind farms' switchrooms for monitoring Electricity Export (EG_{Export,y}) and Electricity Import (EG_{Import,y}). Data recording: Readings from the seven meters were recorded remotely and digitally at the TPG's office (The Grid). The cut-off time of EG_{Import,y} is the last day of every month. After the digital data were incorporated into monthly electricity receipts, TPG sent the monthly electricity receipt to InfraVest (the project owner) for confirmation on the amount of both electricity exported and imported. After confirmation from InfraVest, the confirmed electricity imported is then considered as the basis on which InfraVest conducts the payment to TPG for electricity imported from TPG by the project, and TPG sent the invoice to InfraVest. The ER calculation is based on the electricity data in electricity receipts that are derived from the meter reading records. Data aggregation and calculation: EG_{Import,y} is calculated by sum the electricity imported per month measured by the seven revenue meters over the monitoring period. Data reporting: Before the data being archived, these records are checked by the Operation Department Office of InfraVest to ensure the correctness.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that: ✓ The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD /1/. ✓ The parameter required by the monitoring plan have been sufficiently monitored and correctly listed. The monitored data for required parameters have been verified by checking the whole information flow.

3.5. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	<u>Measuring instruments</u> By site inspection, the information of the seven revenue meters are summarised below:				
	Function	Type	Serial number	Location	Accuracy Class
	Revenue Meter	Bidirectional electricity meter	10940003	located in Fongwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at SongLin S/S Substation	0.5
	Revenue Meter	Bidirectional electricity meter	10940035	located in Fongwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at SongLin S/S Substation	0.5
	Revenue Meter	Bidirectional electricity meter	15001372	installed in Longwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at HouLong S/S Substation	0.5
	Revenue Meter	Bidirectional electricity meter	15001382	installed in Longwei wind farm 11.4 kV Switchroom, before connection to Taipower 11.4 kV grid at HouLong S/S Substation	0.5
	Revenue Meter	Bidirectional electricity meter	10940022	located in Longwei wind farm 69 kV Switchroom, primary side of the 22.8kV/69kV Transformer, and before connection to the Gongguan-Miaozi 69 kV line #1 connection station	0.5
	Revenue Meter	Bidirectional electricity meter	12941317	located in Chungwei wind farm 22.8 kV Switchroom, after the 22.8kV/69kV Transformer and before connection to Taipower 69 kV grid	0.5
	Revenue Meter	Bidirectional electricity meter	11943540	located in Tauwei wind farm switchroom, before the electricity generated by Tauwei is connected with Guanyin wind farm, then to Taipower 161 kV grid	0.5
	The verification team confirmed the accuracy class is in line with the Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/. All aspects of the installation of the meters and the monitoring procedures were found to be consistent with the monitoring plan /1/. <u>Calibration</u> As per the PDD /1/ and the applicable standard Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46) /19/, the				

	official period of validity for the calibration of electronic electricity meter as used in this project is defined as 8 years. The verification team confirmed based on review of calibration records /17/. Detailed information as below:				
	Serial number	Accuracy Class	Calibrated by	Date of calibration	Valid until (date)
	10940003	0.5	Taiwan Electric Research and Testing Center	27/08/2010	26/08/2018
	10940035	0.5	Taiwan Electric Research and Testing Center	27/08/2010	26/08/2018
	15001372	0.5	Taiwan Electric Research and Testing Center	09/11/2015*	08/11/2023
	15001382	0.5	Taiwan Electric Research and Testing Center	09/11/2015*	08/11/2023
	10940022	0.5	Taiwan Electric Research and Testing Center	27/08/2010	26/08/2018
	12941317	0.5	Taiwan Electric Research and Testing Center	18/12/2012	17/12/2020
	11943540	0.5	Taiwan Electric Research and Testing Center	14/12/2011	13/12/2019
	* For Longwei Wind Farm, 5 new wind turbines were constructed in Dec 2015. Of these, two wind turbines were measured by existing meter 10940022, and the other three wind turbines were measured by the two newly installed meters 15001372 and 15001382. These meters were calibrated by Taiwan Electric Research and Testing Center. As per the Accreditation Authorization /18/ issued by the Bureau of Standards, Metrology and Inspection (BSMI), Taiwan Electric Research and Testing Center is qualified to conduct calibrations for electricity meters with the accuracy class of 0.5.				
Findings	By reviewing the line diagram, interviewing the operation staff and on-site inspection, the verification team confirmed there are seven bi-directional meters installed at the wind farms's switchrooms for monitoring Electricity Export and Electricity Import. However, it was found in the monitoring report version 1.0, only five meters were listed. Therefore, CAR 1 was raised. The project participant updated the monitoring report with seven meters listed. By site inspection and reviewing the calibration reports for the seven meters /17/, the verification team is able to confirm that the information of the seven meters listed in the revised monitoring report version 2.0 is correct. CAR 1 is therefore closed.				
Conclusion	The verification team confirms that: ✓ The equipment for monitoring has an appropriate accuracy and has been controlled and operated in accordance with the monitoring plan of the registered PDD /1/.				

	✓ The calibration has been conducted at the frequency as specified by the methodology and the monitoring plan of the registered PDD /1/.
--	--

3.6. Gold Standard requirements – Sustainable Development indicators

The SD indicators to be monitored against the GS Passport /6/ and their monitoring activity & results within this monitoring period are reported in MR and verified as follows.

SD Indicator	Chosen parameter	Means of verification and Conclusion
# GS1 Air Quality	NOx, SOx & TSP emission reductions	According to Taipower's latest announcement /20/, an average of 0.302 ton/GWh SOx, 0.310 ton/GWh NOx and 0.026 ton/GWh TSP emissions are generated by electricity produced in 2015. The total net electricity delivered to the grid by the Project during this monitoring period is 195947.933MWh, which means that the Project has mitigated approximately of 60.74 tonnes SOx , 59.18 tonnes NOx and 5.09 tonnes TSP emissions.
# GS 2 Quantitative employment and income generation	Number of jobs, salary level	The copy of employment contracts and health and labor insurance records /8/ have been checked. It could be confirmed that 49 persons were employed during the operation period of the Project at the time of verification. Therefore, the verification team is of the opinion that there is no change to the positive impact on the key SD indicator Employment (numbers). The verification team has checked relevant training records /10/, the training covered skills for installation, operation and maintenance, training about Hazards prevention in Confined space, training about the fall risk, and training about the basic rescue. The verification team confirms that relevant trainings have been conducted during the monitoring period. By interview the working staffs, checking the Internal Regulations /21/, Labor Insurance List /8/, Health Insurance List /8/, and Local Welfare Regulations /22/, the verification team confirmed: 1.The working hours specified in the Internal Regulations /21/ is in compliance with the local Labor Standard Act /22/. 2.The welfare, salaries and Labor insurance witnessed are in compliance with the local Labor Standard Act /22/.
# GS 3 Other	Records of	By interviewing the local stakeholder and site inspection, the

pollutants	airtight windows installation for residents in need	verification team confirmed: 1. The impact of the noise is minor. No noise is heard as the WTGs runs. 2. The project owner has installed airtight windows for the residents who live close to Fongwei wind farm in 2013 and 2014.
# GS 4 Biodiversity	Re-plantation records	By site inspection and checking the Inspection records of replantation and Maintenance statement issued by Forestry Bureau /9/, the verification confirmed the normal conservations of re-plantation were well implemented.
# GS 5 Landscape and visual impact	Onsite interview and interview records	The verification team conduct on-site inspection, and confirmed the overall color of wind tower is mainly white and the surroundings of wind towers are greened. By interview with the local stakeholders, the verification team confirmed the local people enjoy the scenery in the area. Positive feedbacks have been received from the onsite interview.
# GS 6 Electromagnetic interference and radiation	Installation records	The verification team confirmed there is no complaint about the electromagnetic impact according to the local stakeholder interview records in 2014, 2015 and 2016 /7/.

3.7. Assessment of data and calculation of emission reductions

Calculation of baseline GHG emissions

Means of verification	The verification team has verified the baseline emissions by: (a) desk review and on-site inspection on the monthly reports /11/, and electricity receipts /12/ and invoice /13/, to verify that a complete set of data for the specified monitoring period is available; (b) Information provided in the monitoring report has been cross-checked with other sources such as the monthly reports /11/, and electricity receipts /12/ and invoice /13/; (c) Review the calculations of baseline GHG emissions have been carried out in accordance with the formulae and methods described in the monitoring plan /1/, and the methodology ACM0002 Version 13.0.0 /5/; (d) Review combined baseline emission factor ($EF_{grid, CM, y}$), IPCC default values, GWPs and other reference values as per the registered PDD /1/; The baseline emissions are the baseline grid emission factor ($EF_{grid, CM, y}$) times the Quantity of net electricity generation supplied to the Grid by the project activity in year y ($EG_{facility, y}$) or the Quantity of net electricity generation supplied to
------------------------------	---

	the grid in year y by the project plant/unit that has been added under the project activity ($EG_{PJ_Add,y}$): $BE_y = EG_{facility,y} * EF_{grid,CM,y}$ (for Fongwei and Longwei Wind Farms) $BE_y = EG_{PJ_Add,y} * EF_{grid,CM,y}$ (for Chungwei and Tauwei Wind Farms) $EG_{facility,y} / EG_{PJ_Add,y}$ is calculated by: $EG_{facility,y} / EG_{PJ_Add,y} = EG_{Export,y} - EG_{Import,y}$ Data for $EG_{Export,y}$ and $EG_{Import,y}$ for the period from 01/04/2015 – 31/03/2016 in the MR /2/ and the emission reduction calculation sheet /3/ has been checked to be consistent against the values in the monthly reports /11/, and electricity receipts /12/ and invoice /13/. The magnification factor for the electricity meters has also been confirmed to be correct by reviewing the electricity receipts /12/. The total quantity of $EG_{facility,y} / EG_{PJ_Add,y}$ for Vintage of 01/04/2015 to 31/12/2015 and Vintage of 01/01/2016 to 31/03/2016, and the calculation of this is clearly presented in the emission reduction (ER) spreadsheet /3/. Hence, the baseline emissions of the project are confirmed by the verification team to be: <table><tr><th>Period</th><th>$EG_{Export,y}$ (kWh)</th><th>$EG_{Import,y}$ (kWh)</th><th>$EG_{facility,y}$ and $EG_{PJ_Add,y}$ (kWh)</th><th>$EF_{grid,CM,y}$ (tCO₂e/MWh)</th><th>BE_y (tCO₂e)</th></tr><tr><td>01/04/2015 to 31/12/2015</td><td>126,722,038</td><td>309,677</td><td>126,412,361</td><td>0.761</td><td>96,199</td></tr><tr><td>01/01/2016 to 31/03/2016</td><td>69,590,949</td><td>55,377</td><td>69,535,572</td><td>0.761</td><td>52,916</td></tr><tr><td>Total</td><td>196,312,987</td><td>365,054</td><td>195,947,933</td><td></td><td>149,115</td></tr></table>	Period	$EG_{Export,y}$ (kWh)	$EG_{Import,y}$ (kWh)	$EG_{facility,y}$ and $EG_{PJ_Add,y}$ (kWh)	$EF_{grid,CM,y}$ (tCO ₂ e/MWh)	BE_y (tCO ₂ e)	01/04/2015 to 31/12/2015	126,722,038	309,677	126,412,361	0.761	96,199	01/01/2016 to 31/03/2016	69,590,949	55,377	69,535,572	0.761	52,916	Total	196,312,987	365,054	195,947,933		149,115
Period	$EG_{Export,y}$ (kWh)	$EG_{Import,y}$ (kWh)	$EG_{facility,y}$ and $EG_{PJ_Add,y}$ (kWh)	$EF_{grid,CM,y}$ (tCO ₂ e/MWh)	BE_y (tCO ₂ e)																				
01/04/2015 to 31/12/2015	126,722,038	309,677	126,412,361	0.761	96,199																				
01/01/2016 to 31/03/2016	69,590,949	55,377	69,535,572	0.761	52,916																				
Total	196,312,987	365,054	195,947,933		149,115																				
Findings	No findings raised in this section.																								
Conclusion	The verification team confirms that: ✓ A complete set of data for the monitoring period is available; ✓ Information on the baseline GHG emission calculation provided in the monitoring report has been cross-checked with other sources; ✓ Calculations of baseline emissions have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document; ✓ There are no assumptions in emission calculations; ✓ Appropriate emission factor, IPCC default values, GWPs and other reference values have been correctly applied.																								

Calculation of project GHG emissions (PE_y)

Means of verification	The verification team has reviewed the calculation of project GHG emission as per the registered PDD /1/ and the applied methodology /5/. The project is a wind farm project, therefore the GHG emission of the project is zero according to ACM0002 Version 13.0.0.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that the GHG emission of the project is zero, which is consistent with methodology ACM0002 Version 13.0.0.

Calculation of leakage GHG emissions

Means of verification	The verification team has reviewed the leakage calculation as per the registered PDD /1/ and the applied methodology /5/. No leakage needs to be considered according to ACM0002 Version 13.0.0.
Findings	No findings raised in this section.
Conclusion	The verification team confirms that no leakage needs to be considered, which is consistent with methodology ACM0002 Version 13.0.0.

Summary of calculation of GHG emission reductions (ER_y)

Means of verification	The verification team has reviewed the calculation of GHG emission reductions in the MR /2/ and emission reduction calculation spreadsheet /3/. As per the registered PDD and the applied methodology, GHG emission reductions were calculated by: $ER_y = BE_y - PE_y$. The emission reductions during the monitoring period from 01/04/2015 to 31/03/2016 are calculated as:			
	Period	BE _y (tCO ₂ e)	PE _y (tCO ₂ e)	ER _y
	01/04/2015 to 31/12/2015	96,199	0	96,199
	01/01/2016 to 31/03/2016	52,916	0	52,916
	Total	149,115	0	149,115
Findings	No findings raised in this section.			
Conclusion	The verification team confirms that:			
	✓ A complete set of data for the monitoring period is available; ✓ Information on the baseline GHG emission calculation provided in the monitoring report has been cross-checked with other sources; ✓ Calculations of baseline emissions have been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document; ✓ There are no assumptions in emission calculations; ✓ Appropriate emission factor, IPCC default values, GWPs and other reference values have been correctly applied.			

Comparison of actual GHG emission reductions with estimates in registered PDD

Means of verification	The comparison of actual GHG emission reductions with estimates in registered PDD /1/ has been checked and re-calculated by the verification team. The annual estimated emission reductions are 190,908 tCO₂e as per the registered PDD /1/. The actual operation days of the Project in the monitoring period are 366 days. The corresponding estimate in the monitoring period are 191,431 tCO₂e = 190,908 tCO₂e * 366/365. The actual emission reductions are 149,115 tCO₂e, which is 22.11% lower than the estimated value in the monitoring period (22.11% = (191,431 - 149,115) / 191,431).
Findings	No findings raised in this section.
Conclusion	The actual emission reductions are 22.11% lower than the estimated value in the monitoring period.

Remarks on difference from estimated value in registered PDD

Means of verification	The verified emission reductions are 22.11% lower than the estimated value in the monitoring period.
Findings	No findings raised in this section.
Conclusion	The verified emission reductions are less than the estimated value in the monitoring period. Thus, no remarks need to be provided in the MR.

3.8. Post-registration changes

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

No temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline were identified during the verification.

Corrections

No corrections to project information or parameters fixed at validation, as described in the registered PDD have been made.

Changes to the start date of the crediting period

There is no change to the start date of the second crediting period.

Inclusion of a monitoring plan to a registered project activity

Not Applicable.

The registered PDD contains a monitoring plan.

Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

No permanent changes from the registered monitoring plan, monitoring methodology or standardized baseline were identified during the verification.

Changes to the project design of a registered project activity

There are no proposed or actual changes to the project design of the registered GS project activity.

Types of changes specific to afforestation and reforestation project activities

Not Applicable.

4. VERIFICATION AND CERTIFICATION STATEMENT

China Certification Center, Inc. (CCCI) has performed the second periodic verification of InfraVest Taiwan Wind Farms Bundled Project 2011-Taiwan (hereafter referred as the Project), GS Reference Number 1001, covering the monitoring period 01/04/2015 to 31/03/2016, and applying methodology ACM0002: “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, Version 13.0.0. The verification was performed on the basis of UNFCCC criteria for the CDM, Gold Standard criteria, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

CCCI has verified the project Monitoring Report version 3.0 dated 25/08/2016 /2/ for the monitoring period as indicated above. CCCI confirms that the Project is implemented as described in the registered Project Design Document. Installed equipment being essential for generating emission reductions run reliably and are calibrated appropriately. The monitoring system is in place and the Project is generating GHG emission reductions as a GS project.

CCCI can confirm that the GHG emission reductions are calculated without material misstatements, or erroneous reporting of information. Our opinion relates to the Projects' GHG emissions and resulting GHG emission reductions reported and related to the validated and registered project baseline, monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CCCI confirms the following statement:

GHG emission reduction for Vintage of 01/04/2015 to 31/12/2015	96,199 tCO ₂ e
GHG emission reduction for Vintage of 01/01/2016 to 31/03/2016	52,916 tCO ₂ e
Total amount of GHG emission reductions achieved in the monitoring period from 01/04/2015 to 31/03/2016	149,115 tCO ₂ e

Mr. Luo Peng
Team Leader
26/08/2016

Ms. Li Yiting
Internal Technical Reviewer
26/08/2016

5. COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Luo Peng	Team Leader	Mr. Luo Peng is an experienced auditor for CDM projects. He received comprehensive training of CDM, has more than 6 years' experience in CDM projects and has participated in more than 100 CDM projects, including wind power, hydro power, biomass, municipal solid waste incineration projects. He has worked at all the stages in the process of CDM project, including validation and verification. Besides, he has also received GS trainings by web-seminar in 2012. And through WCD (World Commission on Dams) assessments on more than 10 big hydropower projects, he gained adequate knowledge and auditing skills on environmental impact, social-economic impact and sustainable development assessment. Before joining CCCI, Luo Peng worked with the world leading CDM development company Ecosecurities and the Designated Operational Entity ERM CVS.
Li Yiting	Technical Reviewer	Ms. Li Yiting has worked in CDM projects since 2006 and gained extensive experience in the development and implementation of CDM projects, working in the area of project-based mechanisms. Her background includes both project validation and verification, in different sectoral scopes, including wind power, hydro power, biomass, waste heat recovery in cement industry, coke oven gas recovery industry. From year 2009 onwards she has been involved in validation and verification of CDM projects and also as a technical reviewer.

6. DOCUMENTS REVIEWED OR REFERENCED

No	Author	Title	References to the document	Provider
/1/	South Pole Carbon Asset Management Ltd.	Registered GS-PDD, version 3 dated 20/06/2013.	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000001929	Others
/2/	Fang Qun, South Pole Carbon Asset Management Ltd.	Monitoring Report version 1.0 dated 12/04/2016	-	Project participants
		Revised Monitoring Report version 2.0 dated 06/06/2016	-	Project participants
		Revised Monitoring Report version 3.0 dated 25/08/2016	-	Project participants
/3/	Fang Qun, South Pole Carbon Asset Management Ltd.	Emission reduction calculation sheet	-	Project participants
/4/	Japan Consulting Institute	Validation report, version 02.0 dated 11/07/2013.	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000001929	Others
	China Classification Society Certification Company	Verification Report for the 1 st monitoring period	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000001929	Others
/5/	CDM EB	ACM0002: "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", Version 13.0.0	http://cdm.unfccc.int/methodologies/PAmethodologies/approved	Others
/6/	GS Foundation	Gold Standard Passport	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000001929	Others
/7/	InfraVest Wind Power Group	local stakeholder interview records in 2014, 2015 and 2016	-	Project participants
/8/	InfraVest Wind Power Group	Employment contracts and Health and labor Insurance Records	-	Project participants
/9/	InfraVest Wind Power Group	Inspection records of replantation dated 27/05/2014.	-	Project participants
	Forestry Bureau	Maintenance statement, dated 04/02/2014, 08/08/2014, 26/01/2015, 03/02/2015, 21/08/2015, 05/02/2016, 18/02/2016 and 23/03/2016		
/10/	InfraVest Wind Power Group	Training materials and training records, dated 22/04/2015, 18/06/2015 and 08/09/2015	-	Project participants
/11/	InfraVest Wind Power Group	Monthly reports covering the monitoring period from 01/04/2015 to 31/03/2016	-	Project participants
/12/	TaiPower Grid Company	Electricity receipts (for electricity export) covering the monitoring period from 01/04/2015 to 31/03/2016	-	Project participants

		Electricity receipts (for electricity import) covering the monitoring period from 01/04/2015 to 31/03/2016		
/13/	InfraVest Wind Power Group	Electricity invoices (for electricity export) covering the monitoring period from 01/04/2015 to 31/03/2016	-	Project participants
	TaiPower Grid Company	Electricity invoices (for electricity import) covering the monitoring period from 01/04/2015 to 31/03/2016		
/14/	InfraVest Wind Power Group	Electricity line diagram	-	Project participants
/15/	Co-signed by the InfraVest Wind Power Group and TaiPower Grid Company	Power Purchase Agreements dated 8/9/2011 and 31/5/2011	-	Project participants
/16/	InfraVest Wind Power Group	Monitoring Manual	-	Project participants
/17/	Taiwan Electric Research and Testing Center	Calibration reports for the seven revenue meters	-	Project participants
/18/	Bureau of Standards, Metrology and Inspection (BSMI)	Accreditation Authorization for Taiwan Electric Research and Testing Center, issued on 01/06/1989	http://www.bsmi.gov.tw/wSite/laws/review.jsp?lawId=2c9081fe1cb78d60011cc1e27d120dd1	Project participants
/19/	Taiwan Government	Technical Specification for Verification and Inspection of Electricity Meters (Regulation No. CNMV 46)	-	Others
/20/	TaiPower Grid Company	Environmental Improvement Conditions Section, Operation Report	http://www.taipower.com.tw/content/govern/govern01.aspx?MTtype=5&MSType=14	Others
/21/	InfraVest Wind Power Group	Internal Employment regulation.	-	Project participants
/22/	Ministry of labor	Labour Standards Act, dated 11 December 2013	http://laws.cla.gov.tw/Eng/FLAW/FLAWDAT01.asp?lsid=FL0149	Others
		Minimum salary in Taiwan	http://www.mol.gov.tw/cht/index.php?code=list&ids=157	
		Labor insurance introduction	http://www.bli.gov.tw/en/sub.aspx?a=qlpmP7AGer8%3d	

7. CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

Table 1. CAR from this verification

CAR ID	1	Section no.	3.5	Date:	25/05/2016	
Description of CAR						
By reviewing the line diagram, interviewing the operation staff and on-site inspection, the verification team confirmed there are seven bi-directional meters installed at the wind farms's switchrooms for monitoring Electricity Export and Electricity Import. However, it was found in the monitoring report version 1.0, only five meters were listed. Therefore, CAR 1 was raised.						
Project participant response				Date:	06/06/2016	
For Longwei Wind Farm, 5 new wind turbines were constructed and in operation in Dec 2015. The Wind turbine ID of the 5 new wind turbines are #30, #48, #56, #B01, #55. Thus, with the completion of these 5 new wind turbines, Longwei Wind Farm is in fully operation as planned in the registered GS PDD.						
The wind turbine of #B01 and #55 are connected to Taipower 69 kV grid through the Gongguan-Miaozi 69 kV line #1 connection station. And they are linked to the original meter.						
The wind turbine of #30, # 48, #56 are connected to Taipower 11.4 kV grid at Houlong S/S sbustaiton. And the three wind turbines linked to two new meters. The two new meters information is as followed:						
Wind Farm	Meter Serial No.	Meter model	Specific location	Accuracy Class	Calibration date (dd/mm/yy)	Valid until (dd/mm/yy)
Longwei	15001372	kV2c	Longwei wind farm	0.5	09/11/2015	08/11/2023
Longwei	15001382	kV2c	Longwei wind farm	0.5	09/11/2015	08/11/2023
Thus, there are total seven bi-directional meters installed. The relevant information has been updated in the MR.						
Documentation provided by project participant						
Revised Monitoring Report version 2.0						
DOE assessment				Date:	08/06/2016	
By site inspection and reviewing the calibration reports for the seven meters /17/, the verification team is able to confirm that the information of the seven meters listed in the revised monitoring report version 2.0 is correct.						
CAR 1 is therefore closed.						

Table 2. CL from this verification

CL ID	1	Section no.	3.4	Date:	25/05/2016
Description of CL					
The verification team reviewed the monitoring report, and found that the cut-off time for monthly recording Electricity Export ($EG_{Export,y}$) and Electricity Import ($EG_{Import,y}$) was not specified. CL 1 was therefore raised.					
Project participant response					Date: 06/06/2016
The cut-off time for monthly recording Electricity Export ($EG_{Export,y}$) and Electricity Import ($EG_{Import,y}$) are the last day of every month. The relevant information is updated in the MR.					
Documentation provided by project participant					
Revised Monitoring Report version 2.0					
DOE assessment					Date: 08/06/2016
The verification team interviewed the operation staffs and checked the monthly reports /11/, and electricity receipts /12/ and invoice /13/, and confirmed that the cut-off time for monthly recording Electricity Export ($EG_{Export,y}$) and Electricity Import ($EG_{Import,y}$) is the last day of every month. CL 1 is therefore closed.					



No remaining FAR from validation and/or previous verification.

No FAR from this verification