CECIC Gansu Yumen Changma No.3 Wind Farm Project

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(CTI)

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Summary:

Shenzhen CTI International Certification Co., Ltd (hereafter referred to as CTI) has been commissioned by Profit Carbon Environmental Energy Technology (Shanghai) Co., Ltd. to perform a validation of the renewal of crediting period of "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (Ref. No. 728) (hereinafter referred to as the project activity) in P. R. China.

The scope of validation of the renewal of crediting period is defined as an independent and objective review of the updated sections of the PD relating to the baseline, estimated emission reductions and the monitoring plan using the most recent version of baseline and monitoring methodology applicable for the project activity. The validation opinion is finalized based on the assessment of the project description through applying standard auditing techniques including but not limited to document reviews, follow up actions (e.g. site visit, telephone or e-mail interviews) and also the review of the applicable approved methodology and underlying formulae and calculations.

The assessment was performed in accordance with VCS Standards version 4.1 and UNFCCC requirement including an assessment of:

(a) The impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant guidance from the Board with regard to renewal of the crediting period of the registered VCS project activity at the time of requesting renewal of crediting period of the project activity;

(b) The correctness of the application of the approved methodology and, where applicable, the approved standardized baseline for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period of the registered VCS project activity.

The project activity was registered as a CDM project activity on 28/04/2011 which is available at https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view. After the registration of CDM, the project has been registered as a VCS project which is available at https://registry.verra.org/app/projectDetail/VCS/728.

The purpose of "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (hereafter referred to as the Project) developed by CECIC Wind-power (Gansu) Co., Ltd. is to generate renewable electricity by utilizing wind power resource. The Project involves the installation of 134 wind turbines with a unit capacity of 1,500 kW and total installed capacity of 201 MW. Total of 463,714 MWh clean electricity generated by the Project are expected to be delivered to the Northwest China Power Grid (NWPG) annually. The project is located 18-31 km southwest of Yumen Town, Yumen City, Gansu Province in the People's Republic of China. The central geographical

coordinates of the project is 40°05'39"N to 40°09'52"N and 96°46'22"E to 96°51'57"E. The project activity will achieve greenhouse gases (GHGs) emission reductions by avoiding CO_2 emissions from the business-as-usual scenario electricity generation of those fossil fuel-fired power plants connected to the NWPG. The project activity contributes to sustainable development of the local community, the host country and the world.

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

During this validation, 1 CAR, no CL or FAR was identified in relation to relevant VCS standards, guidance and UNFCCC requirements and relevant host party criteria and the applied baseline and monitoring methodology etc.

In summary, it is CTI's opinion that the project activity "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (Ref. No. 728) in P. R. China, as described in the PD (version 02 dated 17/02/2022), meets all relevant VCS and UNFCCC requirements for the renewal of the crediting period.

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1 INTRODUCTION

1.1 Objective

Shenzhen CTI International Certification Co., Ltd (hereafter referred to as CTI) has been commissioned by Profit Carbon Environmental Energy Technology (Shanghai) Co., Ltd. to perform a validation of the renewal of crediting period of "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (Ref. No. 728) (hereinafter referred to as the project activity) in P. R. China.

Shenzhen CTI International Certification Co., Ltd as the validation body of the project activity has been accredited as a DOE by UNFCCC and also meets the competence requirements as set out in ISO 14065:2007.

The objective of this validation is to ensure that reported information in the Project Description of "CECIC Gansu Yumen Changma No.3 Wind Farm Project" is complete and accurate in accordance with applicable VCS standards and relevant UNFCCC requirements.

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the project description (PD). The PD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM0002 version 20.0. The validation was based on the requirements in the CDM Validation and Verification standard for project activities version 02.0, VCS standard version 4.1 and VCS Program Guide version 4.0.

The validation is not meant to provide any consulting towards the client. However, stated requests for forward actions and/or corrective actions may provide input for improvement of the Project monitoring towards reductions in the GHG emissions.

1.3 Level of Assurance

The validation report is based on the VCS-PD and supporting evidences made available to the auditor and information collected through performing interviews and during the on-site assessment.

The validation conclusion is assured a reasonable level of assurance.

1.4 Summary Description of the Project

Project title	CECIC Gansu Yumen Changma No.3 Wind Farm Project
UNFCCC reference number	4734

VCS reference number	728
Project Participants	CECIC Wind-power (Gansu) Co., Ltd. (Project Owner, host country, P. R. China)
Location of the project	18-31 km southwest of Yumen Town, Yumen City, Gansu Province in the People's Republic of China The central geographical coordinates of the proposed project is 40°05'39" N to 40°09'52"N and 96°46'22" E to 96°51'57"E.
Project start date	Construction date: 19/09/2009 Operation start date: 28/01/2011 (first wind turbine), 23/10/2012 (all wind turbines).
First Project Description (PD)	version 01 dated 07/10/2021
Final Project Description (PD)	version 02 dated 17/02/2022
Applied Methodology/Version	ACM0002, version 20.0, dated 28/11/2019
Scope/Technical Area	1/1.2

The project activity was registered as a CDM project activity on 28/04/2011 which is available at https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view. After the registration of CDM, the project has been registered as a VCS project which is available at https://registry.verra.org/app/projectDetail/VCS/728.

The purpose of "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (hereafter referred to as the Project) developed by CECIC Wind-power (Gansu) Co., Ltd. is to generate renewable electricity by utilizing wind power resource. The Project involves the installation of 134 wind turbines with a unit capacity of 1,500 kW and total installed capacity of 201 MW. Total of 463,714 MWh clean electricity generated by the Project are expected to be delivered to Northwest China Power Grid (NWPG) annually. The project is located 18-31 km southwest of Yumen Town, Yumen City, Gansu Province in the People's Republic of China. The central geographical coordinates of the proposed project is 40°05'39"N to 40°09'52"N and 96°46'22" E to 96°51'57"E. The project activity will achieve greenhouse gases (GHGs) emission reductions by avoiding CO_2 emissions from the business-as-usual scenario electricity generation of those fossil fuel-fired power plants connected to the NWPG. The project activity contributes to sustainable development of the local community, the host country and the world.

2 VALIDATION PROCESS

2.1 Method and Criteria

Validation was conducted using CTI's procedures in line with the requirements specified in the VCS Standard version 4.1, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant UNFCCC requirements and applying standard auditing techniques. No sampling was utilized during the site visit as well as validation for project activity.

CTI completed a strategic review and risk assessment of the projects activities and processes in order to gain a full understanding of (if applicable):

- Project Details;
- Application of Methodology;
- Estimated GHG Emission Reduction and Removals;
- Monitoring;
- Safeguards etc.

CTI validate that the reported information in the Project Description are complete and accurate in question. This involved a site visit and a desk review of the Project Design. This Validation Report describes the findings of this assessment.

2.2 Document Review

Based on the requirements of competency, experience and qualified sectoral scopes, CTI appointed a validation team in accordance with CTI's internal procedures (see Appendix 2 Competence of team members and technical reviewers).

Function	Name	Technical competence	Task Performance*
Team Leader	Wang Guolian	1.2	☒ DR ☒ SV ☒ RP ☐ TR
Technical Reviewer	Lin Shunrong	1.2	☒ DR ☐ SV ☐ RP ☒ TR

*DR=Document review; SV=Site visit; RP=Reporting; TR=Technical review

The VCS PD (version 01 dated 07/10/2021) and VCS PD (version 02 dated 17/02/2022) were assessed as part of the validation. In addition, the revised CDM PDD (approved by CDM EB) (version 11.0 dated 02/07/2012), registered VCS PD (version 10.2 dated 20/04/2011), Validation Opinion for revision of registered monitoring plan (revised CDM PDD approved by CDM EB), and Validation Report of registered CDM PDD, as well as relevant documents, were reviewed. A detailed documents reviewed are listed in Appendix 1 of the report.

2.3 Interviews

The key personnel interviewed are summarized in the table below:

Interviewed personnel	Role	Organization	Subject
Mr. Zhou Weipeng	Project Manager	CECIC Wind-power (Gansu) Co., Ltd.	Basic information, technology of the project, etc.; Monitor Data: meter readings, control and maintenance, QA&QC systems; Status of the project activity and any modifications with respect to the registered PD; Applicability to the latest methodology; National and local policies and changes; Baseline of the project and its updates; The lifetime of the project activity Emission Factors and their updates; Monitoring plan and changes.
Ms. Wang Qing	Director of Monitoring Team	CECIC Wind-power (Gansu) Co., Ltd.	
Mr. Ma Yue	Staff of Monitoring Team	CECIC Wind-power (Gansu) Co., Ltd.	
Ms. Zhang Lin	Staff	Local Environment Protection Bureau	The process and participation of the stakeholder consultation; The impact of the project activity; Any complaints by local stakeholders and the implementation of the mitigation measures.
Mr. Liu Jun			
Ms. Luo Xiaoyun	Local resident	Luojiazhuang Village	
Ms. Luo Lingling	Local resident	Luojiazhuang Village	
Mr. Zhao Yehai	Local resident	Zhaojiazhuang Village	
Mr. Zhao Yuejun	Local resident	Zhaojiazhuang Village	
Ms. Zhang Lu	Local resident	Zhangjiazhuang Village	
Mr. Cheng Xiaoyu	Project Manager	Profit Carbon Environmental Energy Technology (Shanghai) Co., Ltd.	Data collection and ER calculation.
Mr. Wang Xuyang			
Mr. Wu Song			

2.4 Site Inspections

The validation team performed the on-site validation (18-31 km southwest of Yumen Town, Yumen City,

Gansu Province in the People's Republic of China) on 13/10/2021. The interviewed personnel and objective are listed in above table.

2.5 Resolution of Findings

As an outcome of the validation process, the team can raise different types of findings.

Where a non-conformance arises The validation team shall raise a Corrective Action Request (CAR). A CAR is issued, where reported information is not in line with the applicable CDM/VCS requirements.

The validation team shall raise a Clarification Request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM/VCS requirements have been met.

All CARs and CLs raised during validation shall be resolved prior to submitting a request for registration.

1 CARs and no CLs were raised during validation of the project.

2.5.1 Forward Action Requests

As this is the validation for the project for renewal of crediting period, no FARs were raised in the previous validation and verification process.

3 VALIDATION FINDINGS

3.1 Project Details

The following description of the project as per PD was verified during the on-site visit:

The project activity is a wind power project located 18-31 km southwest of Yumen Town, Yumen City, Gansu Province in the People's Republic of China. which is to use wind resource for electricity generation. The installed capacity of the project activity is 201 MW, consisting of 134 wind turbines with unit capacity of 1,500 kW. The average annual power delivered to the grid by the project is expected to be 463,714 MWh. The Project can reduce GHG emissions by replacing the electricity generated by fossil fuel fired power plants Northwest China Power Grid (NWPG). It's estimated that the project could achieve GHG emission reductions of 361,383 tCO_2e annually in the second crediting period.

The project activity was invested and operated by CECIC Wind-power (Gansu) Co., Ltd. which is the project proponent of project by checking the business license of the project.

By site visit checking the nameplate of the project, following technical parameter of project activity are confirmed:

Item	FD82A/1500
1. Data for Unit	
Rated capacity (kW)	1500
Number of unit	134
Capacity control method	Adjusting the pitch of blade and wind wheel speed control
Turbine diameter (m)	82
Hub height (m)	70
Cut in wind speed (m/s)	3.0
Rated wind speed(m/s)	11
Cut out wind speed (m/s)	20.0
Wind speed limit (m/s)	52.5
Operating temperature(℃)	-20~+40
The wind direction	Upwind
Technical lifetime (y)	20
2.Blade	
Number of blades	3
Material of balde	GRP

End profiles of blades speed(m/s)	74.3
3.Generator	
Type of generator	Double-fed slip ring asynchronous generator
Rated capacity (kW)	1500
Output Voltage (V)	690
Rated speed (rpm)	1000~1800±10%
4.Machinery space & Tower	
Machinery space (t) (exclude blade)	61
blade	3x6.2
Type of tower	Conical steel tube
High of tower (m)	70
Weight of tower (t)	127.66

By checking the registered VCS PD and site visit interview with project owner, it is confirmed that the first wind turbine started operation on 28/01/2011, while all wind turbines started operation on 23/10/2012. The start date of crediting period of the project activity is chosen as 28/01/2011. A deviation was identified for the crediting period of the Project. The project is registered under VCS Standard version 3.2 and completed validation before 19/03/2020. As per VCS requirements, it remains eligible to apply the crediting period requirements under VCS 3.2 which shall be a maximum of ten years and may be renewed at most twice. Therefore, the first renewable crediting period of the Project is updated from 28/01/2011 - 27/04/2011 to 28/01/2011 - 27/01/2021, which lasts for 10 years. The same has been justified in Verification Reports of previous monitoring period.

As per UNFCCC website (https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view), the project was registered under CDM scheme on 28/04/2011 with reference number of 4734. The first crediting period under CDM scheme is 28/04/2011 - 27/04/2018, which could be renewed twice (the total crediting period is from 28/04/2011 - 27/04/2032).

Considering the 20-year lifetime of the project activity and 7*3 CDM renewable crediting period, it is not eligible for VCU issuance beyond 27/01/2031. Therefore, the validation team confirmed that the second VCS crediting period of the project is from 28/01/2021 to 27/01/2031 last for 10 years in line with VCS requirements.

As the installed capacity of the project is 201 MW which falls under large scale project according to the requirement of CDM. Also, due to the annually estimated emission reductions are larger than 300,000 tCO_2, the project falls under large project under VCS standard.

The project is located 18-31 km southwest of Yumen Town, Yumen City, Gansu Province in the People's Republic of China. Through site visit it is confirmed that the central geographical coordinates of the proposed project is 40°05'39"N to 40°09'52"N and 96°46'22"E to 96°51'57"E.

Before the implementation of the project activity, the electricity generated by the project would be

supplied by NWPG in the baseline scenario.

By checking laws and regulation, ie. Renewable Energy Law of the People's Republic of China which came into effect on 01/01/2006, Agenda for China's 14th Five-Year Plan (2021-2025), it is confirmed that the project activity is in complicate with all laws and regulations in China.

By checking information on the Internet, the project activity was registered as a CDM project activity on 28/04/2011. It is confirmed that the project activity has been validated by TÜV Rheinland Japan Ltd. based on the CDM PDD (version 10.2 dated 20/04/2011) and reported in the validation report No. 01 997 9105061567, version 05 dated 20/04/2011. All above information is available at https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view. By checking this website, it is confirmed that renewal of 2nd CDM crediting period of the project activity is no longer possible. By checking statement issued by the project proponent, it is confirmed that in 2nd VCS crediting period, the project would only been issued under VCS. Until now, GHG emission reductions of 1,348,338 tCO_2 have been issued as CERs from 28/04/2011 to 31/12/2015 under CDM scheme.

Except CDM and VCS, the validation team reviewed websites of other relevant registries, including, https://registry.goldstandard.org/projects, http://www.irecstandard.org/ and no double counting of emission reductions or any other forms of environmental credits were identified for the project activity. Also through interviewing with project owner during site visit, it is confirmed that the project does not participate in the other emissions trading program and no rejection from other GHG programs.

As the project was designed as a single installation of an activity, not multiple project activities or a grouped project, the eligibility criteria for grouped project is not applicable; no leakage management as this is not an AFOLU project; no commercially sensitive information confirmed through site visit.

By checking the revised CDM PDD (approved by CDM EB) (version 11.0 dated 02/07/2012), China's National Plan on Implementation of the 2030 Agenda for Sustainable Development and 17 SDGs defined by UNDP, and interviewing with stakeholders during site visit, it is confirmed that the project activity would contribute sustainable development in the region in following aspects confirmed by site visit:

- SDG 13: Reducing greenhouse gas emissions compared to a business-as-usual scenario;

- SDG 7: Providing clean and renewable energy source and displacing the power generation of fossil fuel power plants, reducing pollution emissions caused by coal burning significantly, thus mitigating the air pollution and its adverse impacts on human health, promoting sustainable economic development in local area;

- SDG 8: Providing direct and indirect employment opportunities during construction and operation period, which promotes sustained, inclusive and sustainable economic growth, full and productive employment and decent work for local residents.

Overall, it is confirmed that the PD is accurate, complete, and provides an understanding of the nature of the project.

3.2 Safeguards

3.2.1 No Net Harm

By checking the EIA summary and conclusion provided in the revised CDM PDD (approved by CDM EB) (version 11.0 dated 02/07/2012), it is confirmed that wind power is green power and the impact caused by wind power on the surrounding ecosystem and residents, water, and atmosphere etc. is very little, and there would be no net harm caused due to the project activity. Also, the EIA of the project has been approved by the government.

Furthermore, no potential environment or social economic matter was found during the site visit. The project is renewable energy project and thus no net harm observed in air or water quality on-site.

3.2.2 Local Stakeholder Consultation

As per the registered VCS PD and revised CDM PDD (approved by CDM EB), on 18/06/2008, a stakeholder consultation meeting was held in local area and 45 participants attended the meeting. During the stakeholder meeting, a one-page questionnaire, which was designed to be easily filled in, were distributed. 45 copies of questionnaire were distributed, and 45 pieces of reply were received. The opinions expressed by the stakeholders were recorded and are available on request.

The stakeholder survey showed that the project receives strong support from the local community. They believe the project will promote benefit local environment and agree with the project development and construction.

For continuous communication with local stakeholders, communications with Local stakeholders were being carried out at periodic intervals. Via checking questionnaires from local stakeholders, it is confirmed the project owner has carried out questionnaire survey for the local stakeholders to collect the relevant comments and suggestions every two years. Through interviewing with staff from local environmental protection bureau and local residents during the site visit, it is confirmed that during the implementation stage of the project activity, local authority has conducted spot checks on the implementation of the project periodically as per the request from the local governments' regulations and the project passed all the periodic spot checks by local government, no negative comments were received for the project.

All such conclusion has been verified through site visit and check registered PD.

3.2.3 Environmental Impact

By checking the EIA summary and conclusion provided in the registered VCS PD and revised CDM PDD (approved by CDM EB),, it is confirmed that wind power is green power and the impact caused by wind

power on the surrounding ecosystem and residents, water, and atmosphere etc. is very little, there would be no net harm caused due to the project activity. Also, the EIA of the project are approved by the government.

Also, no potential environment or social economic matter was found during the site visit. The project is renewable energy project and thus no net harm observed in air or water quality on-site.

3.2.4 Public Comments

No public comments were received.

3.2.5 AFOLU-Specific Safeguards

Not applicable as non-AFOLU project.

3.3 Application of Methodology

3.3.1 Title and Reference

The approved methodology applied in the project activity is ACM0002 – "Grid-connected electricity generation from renewable sources" (version 20.0)

Related tools are:

Tool to calculate the emission factor for an electricity system (version 07.0);

Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0;

Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period (version 03.0.1).

3.3.2 Applicability

The criteria and assessment of ACM0002 (version 20.0) are in the following table:

Criteria	Analysis	Assessment team's opinion
This methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s);	The project is a greenfield NWPG-connected renewable power generation project.	By site visit and checking FSR, it is confirmed that the project is a Greenfield power plant.

(c) Involve a retrofit of (an) existing operating plants/units; (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s).		
The methodology is applicable under the following conditions: (a) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; (b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.	The project is a new wind power project.	By site visit and checking FSR, it is confirmed that the project is a Greenfield power plant.
In case of hydro power plants, one of the following conditions shall apply: (a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or (b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased	The project is a wind power project, not hydro power plant. Therefore, this is not applicable	By site visit and checking FSR, it is confirmed that the project is a wind power project, this is not applicable.

and the power density, calculated using equation (7), is greater than 4 W/m^2; or (c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m^2; or (d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m^2, all of the following conditions shall apply: (i) The power density calculated using the total installed capacity of the integrated project, as per equation (8), is greater than 4 W/m^2; (ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity; (iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m^2 shall be: a. Lower than or equal to 15 MW; and b. Less than 10 per cent of the total installed capacity of integrated hydro power project.		
In the case of integrated hydro power projects, project proponent shall: (a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or (b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The	The project is a wind power project, not an integrated hydro power plant. Therefore, this is not applicable	By site visit and checking FSR, it is confirmed that the project is a wind power project, this is not applicable.

purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum of five years prior to the implementation of the CDM project activity.		
The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; (b) Biomass fired power plants/units.	The project does not involve switching from fossil fuel to renewable energy. The project is not biomass fired power plant.	By site visit and checking FSR, it is confirmed that the project is a Greenfield power plant, does not involved in switching from fossil fuel to renewable energy and biomass fired power plant.
In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".	The project is not retrofit, rehabilitation, replacement, or capacity addition project. Therefore, this item is not applicable.	By site visit and checking FSR, it is confirmed that the project is a Greenfield power plant.

According to the table above, The validation team confirm the project meets all the applicable criteria of ACM0002 version 20.0

Also, for related tools, The validation team confirm all applicable criteria have been met confirmed by site visit and checking FSR.

3.3.3 Project Boundary

Project boundary has been ascertained and confirmed during the site visit using ACM0002 version

20.0 – "The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to".

Hence the project boundary includes the renewable energy power generation, sub-stations, grid and all power plants connected to grid. The project activity will evacuate power to the grid. The boundary also extends to the project power plant and all power plants connected physically to the electricity system that the VCS project power plant is connected to.

The calculation of net electricity supplied to grid is under purview of state electricity board and project activity Owner or project activity Implementer does not have any control on it. Thus, for project activity, net electricity supplied to grid is the monitoring parameter which is used for ER calculations.

The sources and GHG gases involved for proposed Project activity are as below

Source		Gas	Included?	Justification/Explanation
Baseline	Grid connected electricity generation.	CO_2	Yes	Main emission source
		CH_4	No	Minor emission source
		N_2O	No	Minor emission source
Project	Greenfield Wind Power Project Activity.	CO_2	No	No CO_2 emissions are emitted from the project
		CH_4	No	Project activity does not emit CH_4
		N_2O	No	Project activity does not emit N_2O

3.3.4 Baseline Scenario

The baseline scenario of the project activity is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid. According to the methodology ACM0002 version 20.0, the baseline emissions are the electricity produced by the project activity multiplied by the emission factor of NWPG.

For the second crediting period, the continued validity of the original baseline has been assessed in the updated PD (version 02 dated 17/02/2022). CTI confirms that there have been no changes in the relevant national and/or sectoral regulations on building a wind power project for exporting electricity to power grid since the previous crediting period. On the other hand, the baseline scenario for building a wind power project for exporting electricity to power grid was still valid according to methodology ACM0002 version 20.0.

The information presented in the updated PD (version 02 dated 17/02/2022) has been validated by an initial document review of all data. Further confirmation has been made based on the review of information from similar projects and/or technologies. The sources referenced in the PD (version 02

dated 17/02/2022) have been quoted correctly. The information was verified against credible sources, such as: China Energy Statistical Yearbook 2015-2020.

The steps from the Methodological Tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" version 03.0.1 as per VCS Standard version 4.1 were applied to assess the continued validity of the baseline and/or to update the baseline at the renewal of a crediting period:

Step 1: Assess the validity of the current baseline for the next crediting period

VCS Standard version 4.1 assessing the impact of new relevant national and/or sectoral policies and circumstance on the baseline. The validity of the current baseline is assessed using the following sub-steps.

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

The current baseline remains the same as it was in the VCS PD (version 02 dated 17/02/2022). There has been not significant change in the relevant national and/or sectoral policies since the date of VCS PD registered till now, although national policies favour the development of renewable energy, electricity generated by fossil fuel based plants dominates the electricity supply. Hence, it can be concluded that the current baseline still complies with all relevant policies.

Step 1.2: Assess the impact of circumstances

There are not new national/sectoral policies or circumstances that could affect the baseline scenario during the renewal of the crediting period. The validation team confirmed that the current baseline identified in the registered VCS PD is still valid for the second crediting period.

Step 1.3: Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested

In absence of the project activity, similar amount of electricity would have been generated by the grid and the continuation of the use of current baseline equipment is considered technically possible. Not any investment needs to be undertaken by the project participants or the third party. Hence, this is not applicable to the project activity.

Step 1.4: Assessment of the validity of the data and parameters

According to the requirement of the "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period", if any of the data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period and not valid anymore, the current baseline needs to be updated for the subsequent crediting period.

The Designated National Authority (DNA) of China issued the notice "2019 Baseline Emission Factors for Regional Power Grid in China" on 29/12/2020, which was the latest grid data available for the project. The Simple operating margin CO_2 emission factor ($EF_{grid,OMsimple,y}$) and build margin emission factor ($EF_{grid,BM,y}$) of the NWPG the project connected have been updated according to the latest data available on 29/12/2020. For the wind project, the values of W_{OM} and W_{BM} for the first crediting period are applied for the subsequent crediting periods as per the "Tool to calculate the emission factor for an electricity system" (version 07.0). Thus, the baseline emissions need to be updated for the second crediting period with the application of the new data available.

Step 2: Update the current baseline and the data and parameters

Step 2.1: Update the current baseline

The baseline emissions have been updated for the second crediting period, without re-assessing the baseline scenario, based on the latest approved version (Version 20.0) of the methodology ACM0002 applicable to the project activity taking into account the sectoral policies and circumstances that are applicable at the time of request for renewal of the crediting period.

Step 2.2: Update the data and parameters

The "2019 Baseline Emission Factors for Regional Power Grid in China" was issued by DNA of China, which was calculated according to the "Tool to calculate the emission factor for an electricity system". The values of W_{OM} and W_{BM} are as per the "Tool to calculate the emission factor for an electricity system" (version 07.0), the validation team confirmed that the applied data and parameters are latest available at the time of the project participant requesting renewal of the crediting period and valid for calculation of baseline grid emission factor of the second crediting period. Refer to section 3.3.6 of this report for details.

3.3.5 Additionality

Not applicable for the renewal of crediting period.

By checking relevant applicable laws and regulations at the time of renewal of crediting period, i.e. Renewable Energy Law of the People's Republic of China which came into effect on 01/01/2006, Agenda for China's 14th Five-Year Plan (2021-2025), the validation team confirms the project activity is in complicate with all laws and regulations in China and there are no surplus regulations required comparing with the first validation at time of renewal of crediting period.

3.3.6 Quantification of GHG Emission Reductions and Removals

The calculation of the emissions reductions exactly follows the procedures described in the methodology ACM0002 version 20.0 and relevant tool, e.g. the "Tool to calculate the emission factor for an electricity system" version 07.0.

CTI has assessed the calculation of project emissions, baseline emissions, leakage emissions and emission reductions. Corresponding calculations have been carried out based on calculation spreadsheet. The consistency of the parameters and equations presented in PD (version 02 dated 17/02/2022), as well as calculation spreadsheet etc., has been compared with the information and requirements presented in the methodology and respective tools.

The assumptions and data used to determine the emission reductions are listed in the PD (version 02 dated 17/02/2022) and all the sources have been checked. Based on the information reviewed it is confirmed that the sources used are correctly quoted and interpreted in the PD. The values presented in the PD (version 02 dated 17/02/2022) are considered reasonably based on the documentation and references reviewed and the results of the interviews.

The estimation of the emission reductions are considered correct as the calculations have been reproduced by the validation team with the attainment of the same results.

CTI confirms methodology ACM0002 version 20.0 and relevant tool, e.g. the "Tool to calculate the emission factor for an electricity system" version 07.0 have been correctly applied to calculate baseline emissions, project emissions, leakage and net GHG emission reductions and removals.

Detailed information on the verification of the parameters used in the equations is found below. The algorithms for the determination of the baseline and project are discussed in the following sections.

The emission reductions are calculated by the difference between baseline emissions (BE_y), project emissions (PE_y) and leakage.

(1) Baseline emissions

As per the methodology ACM0002 version 20.0 that the baseline emissions include only CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The baseline emissions are calculated by the Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh) ($EG_{PJ,y}$) multiplied by the Combined margin CO_2 emission factor for grid connected power generation in year y ($EF_{grid,CM,y}$).

Because the project activity is the installation of a new grid-connected renewable power plant/unit at a site where no renewable power plant was operated prior to the implementation of the project activity, the $EG_{PJ,y}$ equals to the Quantity of net electricity generation supplied by the project plants/units to the grid in year y (MWh) ($EG_{facility,y}$). According to ACM0002, version 20.0, Quantity of net electricity generation supplied by the project plants/units to the grid in year y (MWh) ($EG_{facility,y}$) is determined according to Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0.

The Combined margin CO_2 emission factor for grid connected power generation in year y ($EF_{grid,CM,y}$) is

calculated in a transparent and conservative manner as a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the steps prescribed in the "Tool to calculate the emission factor for an electricity system", version 07.0.

The PD version 02 dated 17/02/2022 using the data for calculation of the grid emission factor at the time the PD was received for validation. The latest data available was from China Electric Power Yearbook 2016 - 2018, China Energy Statistical Yearbook 2016 - 2018. The calculation is in accordance with the calculation process of the combined margin emission factor published by the Chinese DNA: 2019 Baseline Emission Factors for Regional Power Grids in China published by the DNA of China on 29/12/2020. $EF_{grid,OMsimple,y}$ is calculated to be 0.8922 tCO_2e/MWh and $EF_{grid,BM,y}$ is calculated to be 0.4407 tCO_2e/MWh.

As per the "Tool to calculate the emission factor for an electricity system" (version 07.0) and based on the weight w_{OM} and w_{BM} of 0.75:0.25 by default for the second crediting period, the combined margin emission factor is calculated to be 0.779325 tCO_2e/MWh.

The annual quantity of net electricity generation supplied by the project plant/unit to the grid is 463,714 MWh which is in line with the original design of the project. It's confirmed that the estimation of the figure is reasonable. Thereby, the baseline emissions could be calculated to be 463,714 MWh * 0.779325 tCO_2e/MWh = 361,383 tCO_2e. The validation team confirmed that the remission reductions calculation is corrected in the PD.

The values of the main parameters for calculating combined emission factor ($EF_{grid,CM,y}$) are crosschecked by The validation team and the data sources are listed in below table:

Data and Parameters	Description	Data source
$EF_{grid,OM\ simple,y}$	Simple operating margin CO2 emission factor of NWPG in 2019	2019 Baseline Emission Factors for Regional Power Grids in China
$EF_{grid,BM,y}$	Build margin CO2 emission factor of NWPG in 2019.	2019 Baseline Emission Factors for Regional Power Grids in China

CTI confirms that all data sources and assumptions are appropriate, and calculations are correct, applicable to the proposed VCS project activity and will result in a conservative estimate of the emission reductions.

(2) Project emissions

The project is a wind power project. Therefore, the project emission is considered as zero based on ACM0002, version 20,0. Therefore, PE_y = 0 tCO_2e.

(3) Leakage

According to the methodology, the project activity leakage do not take into account, then no leakage according to ACM0002.

(4) Emission reductions

Based on the calculations and results presented in the sections above the implementation of the project activity will result in an average ex-ante estimation of emission reduction conservatively calculated to be 361,383 tCO_2e per year for the selected 10 years crediting period. Total emission reductions during the second crediting period are estimated to be 3,613,830 tCO_2e.

3.3.7 Methodology Deviations

A permanent project deviation was identified during the site visit. The details has been justified in section 3.3.8 of this report. It is confirmed that the deviation will not lower the accuracy and conservativeness of the monitoring system and will not negatively impact the conservativeness of the quantification of GHG emission reductions or removals. In addition, the deviation relates only to the criteria and procedures for monitoring or measurement, doesn't relate to any other part of the methodology. And the project remains in compliance with VCS Program rules and this deviation has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard.

Furthermore, by checking the revised CDM PDD (approved by CDM EB) (version 11.0 dated 02/07/2012), there is a deviation on calculation of Build Margin when adopting the methodological tool - "Tool to calculate the emission factor for an electricity system" by the Chinese DNA in the "2019 Baseline Emission Factors for Regional Power Grids in China". The deviation has been approved by the EB Board in a response letter entitled "Request for clarification on use of approved methodology AM0005 for several projects in China"[1]. The same deviation method has been adopted in this (2^{nd}) crediting period of the project by the Chinese DNA.

Except the project deviation and methodology deviation justified above, no other deviations were identified for this (2^{nd}) crediting period of the project activity.

3.3.8 Monitoring Plan

During the site visit, a project deviation was identified by the assessment team. In the revised CDM PDD (approved by CDM EB) (version 11.0 dated 02/07/2012), 1 parameter $EG_{facility,y}$ was monitored. Two solar projects (other projects) shared bi-directional gateway meter (M1 as main meter and M1' as backup meter with accuracy 0.2s) with the project activity. The quantity of net electricity generation supplied by the Project plant/unit to the grid ($EG_{facility,y}$) is continuous monitored through 10 bi-directional meters installed at the 35kV side of 35kV/330kV transformer.

[1] http://cdm.unfccc.int/UserManagement/FileStorage/AM_CLAR_QEJWJEF3CFBP1OZAK6V5YXPQKK7WYJ

Through site visit, checking PPA, and interview with project owner, the verification team identified a deviation in relation with the calculation method to transact the quantity of net electricity generation supplied by the project plant/unit to the grid of the project activity was adjusted by the project owner and local power grid company and the readings of the 10 electricity meters were not recorded since 01/01/2020 and PP used an alternative method to monitor the quantity of net electricity generation supplied by the project plant/unit to the grid ($EG_{facility,y}$) during this monitoring period.

By checking the line diagram and site inspection, the verification team confirmed that the quantity of net electricity generation supplied by the project plant/unit to the grid ($EG_{facility,y}$) were continuously monitored through bi-directional gateway meter (M1 as main meter and M1' as backup meter with accuracy 0.2s) shared with two solar projects (other projects), as well as electricity meters MS1 (accuracy 0.5s) and MS2 (accuracy 0.5s), which measures the electricity output and input of two Solar Projects. The quantity of net electricity generation supplied by the project plant/unit to the grid ($EG_{facility,y}$) was calculated as:

$$EG_{facility,y} = EG_{PJ\ to\ grid,\ y} - EG_{grid\ to\ PJ,\ y}$$

$$EG_{PJ\ to\ grid,\ y} = EG - EG_{solar1,y} - EG_{solar2,y}$$

Where:

$EG_{PJ\ to\ grid,\ y}$ is the Electricity exported to the grid by the Project.

$EG_{grid\ to\ PJ,\ y}$ is the Electricity imported from the grid by the Project.

EG is the electricity exported to the grid measured by M1 (and/or M1').

$EG_{solar1,y}$ is the electricity supply by the Solar Project I measured by MS1.

$EG_{solar2,y}$ is the electricity supply by the Solar Project II measured by MS2.

As per the revised CDM PDD approved by CDM EB, the accuracy of electricity meters is no less than 0.5S. Therefore, the accuracy of all monitoring electricity meters in the updated PD, including M1, M1', MS1 and MS2, is in line with monitoring plan contained in the revised CDM PDD approved by CDM EB.

Furthermore, the electricity imported from the grid measure by M1 (total electricity imported from the grid by two solar projects and the project activity) is deemed as the Electricity imported from the grid by the Project, which is conservative.

Therefore, the verification team was able to confirm that:

- the accuracy of the meters is in line with monitoring plan contained in the revised CDM PDD approved by CDM EB and methodology ACM0002, version 20.0;

- the calculation of $EG_{facility,y}$ is reasonable and in line with methodology ACM0002, version 20.0.

In conclusion, the verification team confirmed that this deviation between the revised CDM PDD approved by CDM EB and the updated PD will not lower the accuracy and conservativeness of the

monitoring system and will not negatively impact the conservativeness of the quantification of GHG emission reductions or removals. Furthermore, the deviation relates only to the criteria and procedures for monitoring or measurement, doesn't relate to any other part of the methodology. And the project remains in compliance with VCS Program rules and this deviation has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard.

Parameters	Description	Measurement method and QA/QC procedures	Assessment conclusion
$EG_{facility,y}$	Quantity of net electricity generation supplied by the project plants/units to the grid in year y	The parameter would be calculated through parameters $EG_{PJ\ to\ grid,\ y}$ and $EG_{grid\ to\ PJ,\ y}$, following equation $EG_{facility,y} = EG_{PJ\ to\ grid,\ y} - EG_{grid\ to\ PJ,\ y}$. The parameters $EG_{PJ\ to\ grid,\ y}$ and $EG_{grid\ to\ PJ,\ y}$ will be continuous measured and monthly recorded.	Consistent with methodology
$EG_{PJ\ to\ grid,\ y}$	The Electricity exported to the grid by the Project	The parameter would be calculated through parameters EG, $EG_{solar1,y}$ and $EG_{solar2,y}$, following equation $EG_{PJ\ to\ grid,\ y} = EG - EG_{solar1,y} - EG_{solar2,y}$. The parameters EG, $EG_{solar1,y}$ and $EG_{solar2,y}$ will be continuous measured and monthly recorded. Other sources such as sales receipts or relevant commercial data will be available to double check this parameter.	Consistent with methodology
$EG_{grid\ to\ PJ,\ y}$	The Electricity imported from the grid by the Project	This parameter would be monitored by 2 set of bidirectional gateway meter M1 (and/or M1'). M1 is main meter while M1' is backup meter. When main meter M1 is not working, the reading of backup meter M1' will be used. Both meters were installed at the 330kV side of 35kV/330kV transformer. The meter readings will be continuous measurement and monthly recorded. Other sources such as purchase receipts or relevant commercial data will be available to double check this parameter. Practically, the electricity imported from the grid measure by M1 was total electricity imported from the grid by two solar projects	Consistent with methodology

		and the project activity. The same is deemed as the Electricity imported from the grid by the Project, which is conservative.	
EG	The electricity exported to the grid measured by M1 (and/or M1')	This parameter would be monitored by 2 set of bidirectional electricity meter M1 (and/or M1'). M1 is main meter while M1' is backup meter. When main meter M1 is not working, the reading of backup meter M1' will be used. Both meters were installed at the 330kV side of 35kV/330kV transformer. The meter readings will be continuous measurement and monthly recorded.	
$EG_{solar1,y}$	The electricity supply by the Solar Project I measured by MS1	This parameter would be monitored by electricity meter MS1, which was installed at the 35kV side of 35kV/330kV transformer. The meter readings will be continuous measurement and monthly recorded.	
$EG_{solar2,y}$	The electricity supply by the Solar Project II measured by MS2	This parameter would be monitored by electricity meter MSs, which was installed at the 35kV side of 35kV/330kV transformer. The meter readings will be continuous measurement and monthly recorded.	

The accuracy of meter M1 and M1' was 0.2s, while the accuracy of meter MS1 and MS2 was 0.5s. The calibration of meters would be conducted annually based on the requirement of local and national standard. CTI confirms that the monitoring plan contains all necessary parameters which have been clearly described in VCS PD (version 02 dated 17/02/2022) and that the means of monitoring described in the plan complies with the requirements of the methodology.

An organizational structure is provided in VCS PD (version 02 dated 17/02/2022). The functions such as data collection, aggregation, verification, calculation, archiving, as well as the maintenance of equipment etc. have been defined. Quality assurance and quality control procedures for recording, maintaining and data archiving etc. will be ensured according to VCS and CDM EB rules. The calibration of the meter will be implemented as per national standard. An emergency treatment process has been defined in VCS PD (version 02 dated 17/02/2022) when the meter is in malfunction. Data management and quality control system are quoted in VCS PD (version 02 dated 17/02/2022). The monitoring staffs will be trained based on the training program described in VCS PD (version 02 dated 17/02/2022).

3.4 Non-Permanence Risk Analysis

Not applicable for the present project activity.

4 VALIDATION CONCLUSION

CTI has performed a validation of renewal of crediting period of the "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (Ref. No. 728). The validation was performed on the basis of the updated sections of the PD relating to the baseline, estimated emission reductions and the monitoring plan using the most recent version of baseline and monitoring methodology applicable for the project activity. The final validation opinion was finalized in accordance with the VCS Standard version 4.1, CDM VVS for project activities version 02.0 and the CDM PS for project activities version 02.0 including the assessment of:

(a) The impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant guidance from the Board with regard to renewal of the crediting period of the registered VCS project activity at the time of requesting renewal of crediting period of the project activity;

(b) The correctness of the application of the approved methodology and, where applicable, the approved standardized baseline for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period of the registered VCS project activity.

The review of the project design documentation and the subsequent follow-up interviews have provided CTI with sufficient evidence to determine the validity of the original baseline. The project correctly applies the latest baseline and monitoring methodology ACM0002, "Grid-connected electricity generation from renewable sources" version 20.0. CTI is able to confirm:

(a) The updated PD complies with the valid version of the applicable PD form and instructions therein for filling out the PD;

(b) Information transferred to the later valid version of the PD form is materially the same as that in the registered PD;

(a) The baseline and monitoring methodology was applied in accordance with the applicable requirements in the VCS standard and Project Standard;

(b) The baseline, the estimated GHG emission reductions, and the monitoring plan in the updated PD comply with the applicable requirements in the VCS standard and CDM Project Standard, and the valid version of the methodology that is applicable to the registered VCS project activity;

(c) The next crediting period of the registered VCS project activity commences on the day immediately after the expiration of the current crediting period;

(d) The names of project developer in the updated PD are consistent with that in the registered PD.

CTI also confirms that there have been no proposed methodology deviations for the second crediting

period when submitting this report.

Given that the project is implemented as designed and the underlying assumptions do not change, the project is likely to achieve the estimated amount of annual emission reductions of 361,383 tCO_2e and a total estimated emission reduction of 3,613,830 tCO_2e over the 2nd crediting period as specified within the final PD.

In summary, it is CTI's opinion that the project activity "CECIC Gansu Yumen Changma No.3 Wind Farm Project" (Ref. No. 728) in P. R. China, as described in the PD, version 02 dated 17/02/2022, meets all relevant VCS and UNFCCC requirements for the renewal of the crediting period.

APPENDIX 1: ABBREVIATIONS

Abbreviations	Full texts
AFOLU	Agriculture, Forestry, and Other Land Use
BM	Build Margin
CDM	Clean Development Mechanism
CME	Coordinating/managing entity
CER	Certified Emission Reduction
CM	Combined Margin
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DNA	Designated National Authority
EB	Executive Board
GHG	Greenhouse gas(es)
GS	Gold Standard
EIA	Environmental Impact Assessement
ER	Emission Reduction
ETS	Emission Trading Scheme
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
PA	Project Activity
PD	Project Description
PP	Project Participant
QA/QC	Quality Assurance / Quality Control

UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
VCS	Verified Carbon Standard
VCSA	Verified Carbon Standard Association
VCU	Verified Carbon Unit
VVB	Validation/Verification Body
PP	Project Participant
UNFCCC	United Nations Framework Convention on Climate Change

APPENDIX 2: REFERENCE LIST

1. Profit Carbon Environmental Energy Technology (Shanghai) Co., Ltd.: VCS PD, version 01 dated 07/10/2021, version 01.1 dated 01/11/2021, version 02 dated 17/02/2022
2. Profit Carbon Environmental Energy Technology (Shanghai) Co., Ltd.: ER calculation spreadsheet, version 1
3. The revised CDM PDD (approved by CDM EB), version 11.0 dated 02/07/2012.
4. Registered VCS PD version 10.2 dated 20/04/2011.
5. TÜV Rheinland Japan Ltd.: the Validation Report of registered CDM PDD, Version 05 dated 20/04/2011
6. UNFCCC website: CDM Monitoring Reports for CECIC Gansu Yumen Changma No.3 Wind Farm Project of previous monitoring periods
7. SGS United Kingdom Limited: CDM Verification Reports for CECIC Gansu Yumen Changma No.3 Wind Farm Project of previous monitoring periods
8. Profit Carbon Environmental Energy Technology (Shanghai) Co., Ltd.: VCS Monitoring Report for CECIC Gansu Yumen Changma No.3 Wind Farm Project of previous monitoring peeriods
9. LGAI Technological Center, S.A. (Applus+ Certification): VCS Verification Report for CECIC Gansu Yumen Changma No.3 Wind Farm Project of previous monitoring periods
10. CECIC Wind-power (Gansu) Co., Ltd. and State Grid Gansu Electric Power Company: Power Purchase Agreement for CECIC Gansu Yumen Changma No.3 Wind Farm Project.
11. CECIC Wind-power (Gansu) Co., Ltd.: VER monitoring manual and management procedure.
12. CECIC Wind-power (Gansu) Co., Ltd.: Records of training for on-site staff.
13. Business license of the project developer
14. Nameplate of the equipment
15. Feasibility Study Report (FSR) compiled by Northwest Hydro Consulting Engineers CHECC in April 2009 and approved by China National Development and Reform Commission on 21/04/2009 (FaGaiNengYuan[2009]1005)
16. China Energy Statistical Yearbook 2016-2018
17. 2019 Baseline Emission Factors for Regional Power Grids in China issued by China DNA on 29/12/2020
18. China Electric Power Yearbook 2016 - 2018
19. VCS Standard version 4.1, issued on 19/09/2019 and updated on 22/04/2021
20. Approved methodology ACM0002, version 20.0, dated 28/11/2019

21. Tool to calculate the emission factor for an electricity system, version 07.0

22. Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0

23. Assessment of the validity of the original/current baseline and to update the baseline at the renewal of a crediting period, version 03.0.1

24. CDM Validation and Verification Standard for project activities version 03.0

25. CDM Project Standard for project activities version 03.0

26. CDM project cycle procedure for project activities version 03.0

APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Ms. Guolian WANG

Satisfies the requirements of competence management system of CTI, and is hereby appointed as:

Qualification						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	√	√	√	√	√	√

Scope	Technical Area
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources
SS 3: Energy demand	TA 3.1: Energy demand
SS 5: Chemical industry	TA 5.1: Chemical industry
	TA 5.2: Caprolactam, nitric and adipic acid
SS 11: Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	TA 11.1: Emissions of fluorinated gases
	TA 11.2: Refrigerant gas production
SS 12: Solvents use	TA 12.1: Chemical industry
SS 13: Waste handling and disposal	TA 13.1: Solid waste and wastewater
	TA 13.2: Manure

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu LIN Wu Lin

Technical Competent Manager

Shenzhen, 01/01/2021

Ms. Shunrong Lin

Satisfies the requirements of competence management system of CTI, and is hereby appointed as:

Qualification					
GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
√	√	√	√	√	√

Scope	Technical Area
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources
SS 14: Afforestation and reforestation	TA 14.1: Afforestation and reforestation
SS 15: Agriculture	TA 15.1: Agriculture

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu LIN Wu Lin

Technical Competent Manager

Shenzhen, 01/01/2021

APPENDIX 4: <CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS, FORWARD ACTION REQUESTS (CAR/CL/FAR)>

CAR ID	01	**Section no.**	3.3.6	**Date:** 13/10/2021
Description of CAR				
The process for determination of $EF_{grid,BM,y}$ in the PD (version 01 dated 07/10/2021) is not consistent with that in 2019 Baseline Emission Factors for Regional Power Grids in China issued by China DNA on 29/12/2020. PP is requested to revise section 4.1 of PD accordingly.				
Project proponent response				**Date:** 01/11/2021
The process for determination of $EF_{grid,BM,y}$ have been modified according to the requirements. Detail refer to section 4.1 in PD.				
Documentation provided by project proponent				
PD (version 02 dated 17/02/2022)				
DOE assessment				**Date:** 18/02/2022
By checking section 4.1 of the Updated PD (version 02 dated 17/02/2022), the validation team confirmed that the the process for determination of $EF_{grid,BM,y}$ has been revised to be consistent with that in 2019 Baseline Emission Factors for Regional Power Grids in China issued by China DNA on 29/12/2020. Therefore, CAR 01 was closed.				