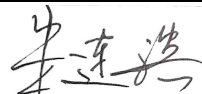




**Validation report form for renewal of crediting period for
CDM project activities
(Version 03.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	CGN Guangdong Duanfen Wind Power Project Ref. 5136
Number and duration of the next crediting period	2 nd crediting period from 31/12/2019 to 30/12/2026
Version number of the validation report	01
Completion date of the validation report	18/06/2020
Version number of PDD to which this report applies	04
Project participants	CGN Wind Power Co., Ltd. Statkraft Markets GmbH
Host Party	People's Republic of China
Applied methodologies and standardized baselines	ACM0002 "Grid-connected electricity generation from renewable sources", Version 20.0
Mandatory sectoral scopes	1: Energy industries (renewable/non-renewable sources)
Conditional sectoral scopes, if applicable	N/A
Estimated amount of annual average GHG emission reductions or GHG removals by sinks in the next crediting period	57,160 tCO ₂
Name and UNFCCC reference number of the DOE	Name: China Building Material Test & Certification Group Co., Ltd. (CTC) UNFCCC reference number: E-0065
Name, position and signature of the approver of the validation report	Zhu Lianbin Deputy General Manager 

SECTION A. Executive summary

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The proposed CGN Guangdong Duanfen Wind Power Project is located in Taishan County, Jiangmen City, Guangdong Province, P.R.China. The total installed capacity of the Project is 47.6 MW equipped with 56 sets of wind turbines with a unit installed capacity of 850 kW. The estimated electricity delivered to China Southern Power Grid by the Project is 82,910 MWh per year. The commission date of the project was 26/12/2011.

China Building Material Test & Certification Group Co., Ltd. (CTC) was commissioned by CGN Wind Power Co., Ltd. to perform a validation of the request to renew the crediting period of CDM project activity ref. 5136 "CGN Guangdong Duanfen Wind Power Project" in China.

Scope of the validation

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD 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, Grid-connected electricity generation from renewable sources /9/. The validation was performed in accordance with CDM Project Standard version 02.0 /10/ and the Validation and Verification Standard version 02.0 /11/ and included an assessment of:

- (a) An impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant EB guidance with regard to renewal of the crediting period at the time of requesting renewal of crediting period;
- (b) The correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

The validation of renewal of crediting period serves as assessment of validity of the baseline of project that has opted for a renewal of the crediting period. The validation is an independent third party assessment of the project's compliance with relevant UNFCCC criteria. In particular, the project's baseline and the monitoring plan (MP) are validated in order to confirm that the project baseline, as documented, is sound and reasonable, and meet the stated requirements and identified criteria. Validation is a requirement for all CDM projects seeking renewal of the crediting period and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

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.

Validation process

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using CTC internal procedures. The validation consisted of following three phases:

- i) A desk review of the project design and the baseline and monitoring plan;
- ii) Follow-up interviews with project stakeholders;
- iii) The resolution of outstanding issues and the issuance of the final validation report and opinion.

Validation conclusion

In summary, it is CTC's opinion that the project activity "CGN Guangdong Duanfen Wind Power Project" in China, as described in the updated PDD /3/ version 04 dated 08/06/2020 meets the relevant UNFCCC requirements for the renewal of the crediting period. Hence CTC requests the renewal of the crediting period of the project activity. The emission reductions of the second crediting

period are estimated to be on average 57,160 tonnes of CO₂ equivalent (tCO₂e) per year, and 400,120 tCO₂e over the second crediting period.

SECTION B. Validation team, technical reviewer and approver

B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader/ Technical Expert	IR	Sun	Chunlin	CTC Beijing	√		√	√
2.	Team member	IR	Li	Shuzhen	CTC Beijing	√		√	√

B.2. Technical reviewer and approver of the validation report for RCP

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Zhao	Jinlan	CTC Beijing
2.	Approver	IR	Zhu	Lianbin	CTC Beijing

SECTION C. Means of validation

C.1. Desk/document review

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In addition to the updated PDD /3/ submitted to request a renewal of the crediting period of the project activity, CTC reviewed:

- The registered PDD and the corresponding validation report /1//2/
- Power Purchase Agreement /5/
- Project design document form /15/
- Methodology ACM0002 version 20.0 applied by the project /9/
- Relevant decisions, clarifications and guidance from the CMP and the CDM EB
- Relevant national and sectoral policies

During the desk review, CTC has applied standard auditing techniques to assess the quality of information provided. The following activities were performed:

- A review of the data and information presented to verify their completeness;
- Cross checks between information provided in the updated PDD and information from sources other than other used, paying particular attention to project baseline, emission reduction calculation and monitoring plan.

C.2. On-site inspection

Duration of on-site inspection: N/A

No.	Activity performed on-site	Site location	Date	Team member
N/A	N/A	N/A	N/A	N/A

The project information provided in the updated PDD/3/ for the renewal of crediting period has been verified. CTC was able to confirm information transferred to the updated PDD is materially the same as that in the registered PDD /1/. The project design, construction, operation and monitoring practice of the project activity were not changed. The baseline scenario information can also be confirmed as it was defined by the applied methodology ACM0002 version 20.0 /10/. The estimated annual average of the greenhouse gas (GHG) emission reductions of the project is no more than 100,000tCO₂e, and there is no pre-project information may not be traceable after the registration.

The commission date of the project was 26/12/2011. The implementation status has been described in the updated PDD /3/ and confirmed by the validation team through interview and checking operation logs /16/, Photos of monitoring screen and meters/17/, Monitoring report/18/.

Based on above mentioned reasons and all relevant documents available, CTC did not deem necessary to conduct a physical site visit as part of validation process of the crediting period renewal for the registered project activity.

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Wu	Yicong	CGN Wind Power Co., Ltd.	12/06/2020	<ul style="list-style-type: none"> - status of the project; - national and sectoral policies/circumstances and changes; - monitoring plan; 	Sun Chunlin Li Shuzhen
2.	Li	Dongqi				
3.	Liu	Yang	CGN Carbon Asset Management (Beijing) Co., Ltd.	12/06/2020	<ul style="list-style-type: none"> - any changes with respect to the registered PDD; - applicability of the selected methodology; - baseline of the project and updates; - monitoring plan; 	Sun Chunlin Li Shuzhen

C.4. Sampling approach

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N/A

C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Area of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	0	0	0
Application and selection of methodologies and standardized baselines	0	0	0
Validity of original baseline or its update	0	0	0
Estimated emission reductions or net anthropogenic removals	0	0	0
Validity of monitoring plan	0	0	0
Crediting period	0	0	0

Project participants	0	0	0
Post-registration changes	0	0	0
Others (please specify)	0	0	0
Total	0	0	0

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	The updated PDD provided by the project participant has been verified against the latest PDD form /15/ and the registered PDD.
Findings	The validation team confirms that the PDD form used by the project activity for its crediting period renewal is version 11.0, which is valid at the time of submission of the request for the renewal of the crediting period. Information transferred to the updated PDD /3/ is materially the same as that in the registered PDD.
Conclusion	The validation team confirms the compliance of the updated PDD with the PDD form version 11.0, which is valid at the time of submission of the request for the renewal of the crediting period. Information transferred to the updated PDD/3/ is materially the same as that in the registered PDD.

D.2. Application and selection of methodologies and standardized baselines

Means of validation	The validation team assess the application of the baseline and monitoring methodology by reviewing the updated PDD for the second crediting period, associated documentation, previous validation/verifications and telephone reviewing.
Findings	<p>The updated PDD applies the methodology, "Grid-connected electricity generation from renewable sources" ACM0002 version 20.0 that was the latest version when the project was submitted for crediting period renewal.</p> <p>The project is a Greenfield power plant involving installing wind power plant;</p> <p>The project does not involve hydro power plant;</p> <p>The project does not involve switching from fossil fuels to renewable energy at the site of the project activity.</p> <p>The project does not involve capacity additions, retrofits or replacements</p> <p>The Project is not a biomass fired power plant.</p> <p>The latest version of ACM0002 version 20.0 has been applied in the updated PDD/3/.</p>
Conclusion	Through checking the PDD, the validation team confirms that the project activity correctly applied the selected baseline and monitoring methodology for crediting period renewal. The project activity meets each of the applicability conditions of the methodology.

D.3. Validity of original baseline or its update

Means of validation	<p>The validation team assess the validity of the updated baseline through an assessment of the following issues:</p> <p>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 CDM project activity</p> <p>b) The correctness of the application of the approved methodologies for the determination of the continued validity of the updated baseline and the estimation of GHG emission reductions for the applicable crediting period of the registered CDM project activity.</p>
Findings	<p>The validity of the baseline has been assessed as per 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) /14/. The assessment is performed as follows:</p> <p>Step 1: Assess the validity of the current baseline for the next crediting period</p> <p>Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies.</p> <p>The current baseline remains the same as it was in the registered PDD. There has been no significant change in the relevant national and/or sectoral policies from the</p>

	<p>date of registration till now. In absence of the project activity, similar amount of electricity would have been generated by the China Southern Power Grid (CSPG). Thus, the validation team concludes that the baseline for the project activity remains same and is in line with the relevant mandatory national and/or sectoral policies.</p> <p>Step 1.2: Assess the impact of circumstances</p> <p>At the validation of the project activity, the baseline scenario identified was the continuation of the current practice without any investment. Through checking the PDD and “China Electric Power Yearbook” /7/, the validation team confirmed that electricity generated by the fossil fuel power plants in CSPG still take the lead. Hence, it is concluded by the validation team that market characteristics do not have impact on the baseline scenarios.</p> <p>Also, based on the assessment above, the validation team confirmed that the availability of new fuels or raw materials and the impact of electricity or fuel prices has no impact on the baseline scenarios.</p> <p>The validation team can confirm that there are no impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline scenarios.</p> <p>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.</p> <p>This sub-step is not applicable since the identified baseline scenario at the validation of the project activity did not correspond to the continuation of use of the current equipment(s) without any investment and, the projects proponents or third party (or parties) would undertake an investment later due, for example, to the end of the technical lifetime of the equipment(s) before the end of the crediting period or the availability of a new technology.</p> <p>Step1.4 Assessment of the validity of the data and parameters</p> <p>The emission factors have been updated by the project participants for the second crediting period of the project activity accordingly.</p> <p>Step 2: Update the current baseline and the data and parameters</p> <p>Step 2.1: Update the current baseline</p> <p>As the applied methodology ACM0002 version 20.0, the baseline for the Project remains the same as that in the registered PDD as “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, as reflected in the combined margin (CM) calculations described in the ‘Tool to calculate the emission factor for an electricity system’”.</p> <p>Step 2.2: Update the data and parameters</p> <p>The baseline emission from the Project has been calculated as per the “Tool to calculate the emission factor for an electricity system” (version 07.0) /13/. In addition, the calculation has been cross-checked with “2017 Baseline Emission Factors for Regional Power Grids in China” (hereafter “Notification of China-Grid EF”) /6/ published by China’s DNA, which is the latest valid available date at the time of the validation for the renewal of the crediting period.</p>
Conclusion	<p>The validation team confirms that the stepwise procedure provided in the methodological tool has been correctly applied by the project activity for assessing validity of original baseline and its update. Validity of original baseline and its update was therefore confirmed.</p>

D.4. Estimated emission reductions or net anthropogenic removals

Means of validation	<p>As per “CDM validation and verification standard for project activities version 02.0”, “Tool to calculate the emission factor for an electricity system” (version 07.0) and the public “Notification of China-Grid EF”, CTC has evaluated whether the steps taken and equations applied to calculate project emissions, baseline emissions, leakage</p>
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	<p>and emission reductions comply with the requirements of the selected baseline and monitoring methodology.</p> <p>CTC conducted validation activities to determine whether the equations and parameters in the updated PDD have been correctly applied by comparing them to those in the selected approved methodology.</p> <p>CTC verified the justification given in the updated PDD for the choice of data and parameters used in the equations. Where data and parameters will not be monitored throughout the crediting period of the proposed CDM project activity but have already been determined and will remain fixed throughout the crediting period (ex-ante parameters), CTC assessed that all data sources and assumptions to confirm whether it will result in a conservative estimate of the emission reductions.</p>
Findings	<p><u>Baseline emissions:</u></p> <p>The baseline emission factor from the Project has been calculated as per the “Tool to calculate the emission factor for an electricity system” (version 07.0) with six separated steps in the updated PDD /3/. In addition, the calculation has been cross-checked via the “Notification of China-Grid EF” published by China’s DNA, which is the latest valid available date at the time of the validation for the renewal of the crediting period. It is confirmed that the operating margin (OM) emission factor is 0.8367tCO₂/MWh and the build margin (BM) emission factor is 0.2476 tCO₂/MWh.</p> <p>According to the “Tool to calculate the emission factor for an electricity system” (version 07.0), the default weights: $\omega_{OM}=0.75$ for Operating Margin and $\omega_{BM}=0.25$ for Build Margin in the second crediting period of wind power generation projects are adopted.</p> <p>The combined margin emissions factor is calculated as below:</p> $EF_{grid,CM,y} = \omega_{OM} * EF_{grid,OM,y} + \omega_{BM} * EF_{grid,BM,y} = 0.75 * 0.8367 + 0.25 * 0.2476 = 0.689425 \text{ tCO}_2/\text{MWh}.$ <p>The electricity delivered to the grid is 82,910MWh per annum.</p> <p>Therefore baseline emissions are calculated as: $BE_y = EG_{facility} * EF_{grid,CM,y} = 82,910 \text{ MWh} \times 0.689425 \text{ tCO}_2/\text{MWh} = 57,160 \text{ tCO}_2\text{e}.$</p> <p><u>Project emissions:</u></p> <p>The project activity is a wind power plant, according to the methodology, $PE_y = 0$</p> <p><u>Leakage:</u></p> <p>According to the methodology, no leakage needs to be considered for the project activity.</p> <p><u>Emission reductions:</u></p> <p>The emission reduction ER_y during the crediting period is:</p> $ER_y = BE_y - PE_y = 57,160 \text{ tCO}_2\text{e} - 0 \text{ tCO}_2\text{e} = 57,160 \text{ tCO}_2\text{e}$
Conclusion	<p>The validation team confirms that the estimated amount of GHG emission reductions of the project activity is 400,120tCO₂e for the second crediting period (7 years) from 31/12/2019 to 30/12/2026, resulting in estimated average annual emission reductions of 57,160 tCO₂e.</p>

D.5. Validity of monitoring plan

Means of validation	<p>Based on review of the documented procedures, interviews with relevant personnel, CTC evaluated the monitoring plan for the proposed project to ensure that it is based on the approved monitoring methodology that has been applied, and assessed:</p> <ul style="list-style-type: none"> ➤ Whether the monitoring plan contains all necessary parameters; ➤ Whether the parameters are clearly described; ➤ Whether the means of monitoring described in the plan complies with the requirements of the methodology. ➤ Whether the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are
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	<p>sufficient to ensure that the emission reductions can be reported ex post and verified.</p> <p>This evaluation is based on a review of the updated PDD for the 2nd crediting period, associated documentation, previous validation/verifications and telephone reviewing.</p>
Findings	<p>The Project uses the approved consolidated monitoring methodology ACM0002 version 20.0 for grid-connected electricity generation from renewable sources.</p> <p>Parameters determined ex-ante :</p> <p>The baseline emission factor of 0.689425 tCO₂/MWh is determined ex-ante based on the most recent information available at the time of requesting for the renewal of the crediting period, which is calculated as a combined margin (CM), consisting of the combination of OM and BM emission coefficient. The parameters applied in the calculation are validated by the validation team to be credible.</p> <p>The parameters to be monitored are as follow:</p> <ul style="list-style-type: none"> ● EG_{facility,y} is quantity of net electricity generation supplied by the project activity to the grid in year y. ● EG_{PJtoGRID,y} is electricity delivered by the Project to the grid in year y. ● EG_{GRIDtoPJ,y} is electricity imported by the Project from the grid in year y. <p>All necessary parameters have been contained and clearly described. The quantity of net electricity generation supplied to the grid by the proposed project to the grid is calculated as followed:</p> $EG_{\text{facility},y} = EG_{\text{PJtoGRID},y} - EG_{\text{GRIDtoPJ},y}.$ <p>Through checking the updated PDD, the validation team confirmed that the following information had been involved in the monitoring plan:</p> <ul style="list-style-type: none"> ● Monitored Data ● Monitoring System Organization Chart ● Installation of Meters ● Precision of Meters ● Calibration of Meters ● Data Management System ● Quality Assurance and Quality Control Procedure ● Preparation for Verification <p>Sufficient procedures have been identified in the updated PDD and the implementation of those procedures will enable that the emission reductions of the project can be reported and verified ex-post. The management and operation team for the monitoring activity of the project has been described in the updated PDD.</p> <p>Through interview and checking operation logs /16/, Photos of monitoring screen and meters/17/, Monitoring report/18/, the validation team validated that the monitoring plan in the updated PDD has reflected the actual monitoring activities.</p> <p>Electricity delivered to China Southern Power Grid by the Project will be monitored with two bi- directional meters (one of which is for backup) installed on No.II 110 kV Transmission Line at the Step- up Substation at the Project Site. The measurement precision of the meters employed by the Project will be at least 0.5s. The meters of the Project will be calibrated once per year in line with Technical Administrative Code of Electric Energy Metering (DL/T448-2016).</p>
Conclusion	<p>The monitoring plan contained in the updated PDD is in accordance with the monitoring methodology and the approved monitoring plan. The monitoring plan will give opportunity for real measurements of achieved emission reductions.</p>

D.6. Crediting period

Means of validation	CTC reviewed the updated PDD, and registration information in the UNFCCC website to confirm the validity of the second crediting period.
Findings	<p>The first crediting period is from 31/12/2012 to 30/12/2019. As per the Project Cycle Procedure (version 02.0) /12/, the new crediting period is from 31/12/2019 to 30/12/2026.</p> <p>The 2nd crediting period start on 31/12/2019 in the updated PDD, which is the day immediately after the expiration of the 1st crediting period.</p>

Conclusion	The validation team hereby confirms that the start date of 2 nd crediting period is correctly determined, the 2 nd crediting period of the project commences on the day immediately after the expiration of the first crediting period.
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D.7. Project participants

Means of validation	CTC reviewed the updated PDD, and registration information on the UNFCCC website to confirm the project participants.
Findings	The project participants listed in the updated PDD/3/ are: <ul style="list-style-type: none"> ● CGN Wind Power Co., Ltd. ● Statkraft Markets GmbH
Conclusion	As per the VVS, CTC confirmed that the name of the project participants included in the updated PDD is consistent with the name of the project participant on the UNFCCC website.

D.8. Post-registration changes

Type of post-registration changes (PRCs)	Confirmation (Y/N)	Validation report for PRCs	
		Version	Completion date
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents ¹	N	N/A	N/A
Corrections	N	N/A	N/A
Change to the start date of the crediting period	N	N/A	N/A
Inclusion of a monitoring plan	N	N/A	N/A
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	N	N/A	N/A
Changes to the project design	N	N/A	N/A
Changes specific to afforestation and reforestation project activities	N	N/A	N/A

SECTION E. Internal quality control

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The validation report underwent an Internal Technical Review (ITR) before requesting for renewal of crediting period of the registered CDM project activity.

The ITR is an independent process, performed by an internal technical review team (a qualified technical reviewer, with assistance from specialists where necessary), to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as CTC's internal procedures.

The Team Leader provides a copy of the validation report to the technical reviewer, including any necessary validation documentation. The technical reviewer reviews the documentation for conformance with the validation scheme and CTC's internal procedures. This is a comprehensive review of all documentation generated during the validation process. When performing an Internal Technical Review, the technical reviewer ensures that:

- The validation activities have been performed by the validation team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project activity which includes project design, baseline, monitoring plans and emission reduction calculations, internal quality assurance as well as the closure of CARs and CLs during the validation process, review of sample documents.

The technical reviewer may raise Clarification Requests to the validation team and discuss with the Team Leader.

After the agreement of the responses to the Clarification Requests from the validation team as well as the PP(s), the finalized validation report is accepted for further processing such as reporting approval of report uploading via the UNFCCC interface.

¹ Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

SECTION F. Validation opinion

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China Building Material Test & Certification Group Co., Ltd. (CTC) has performed an validation of the request by CGN Wind Power Co., Ltd. to renew the crediting period for the registered CDM project activity "CGN Guangdong Duanfen Wind Power Project" in China (UNFCCC registration Ref. No. 5136). The assessment was performed in accordance with the Validation and Verification Standard (Version 02.0) and the CDM Project Standard (Version 02.0) and included an assessment of:

(a) An impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant EB guidance with regard to renewal of the crediting period at the time of requesting renewal of crediting period;

(b) The correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

The review of the project design documentation and the subsequent follow-up interviews have provided CTC with sufficient evidence to determine the validity of the original baseline scenario and the update of the baseline through an assessment. The project correctly applies the baseline and monitoring methodology ACM0002 version 20.0 "Grid-connected electricity generation from renewable sources".

The emission reductions from the project are estimated to be on the average 57,160 tCO₂e per year over the 2nd renewable crediting period. The emission reduction forecast has been checked, and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

The monitoring plan provides for the monitoring of the project's emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the project design, and it is CTC's opinion that the project participants are able to implement the monitoring plan.

In summary, it is CTC's opinion that the CDM project activity ref. 5136 "CGN Guangdong Duanfen Wind Power Project" In China meets all relevant UNFCCC requirements for the renewal of the crediting period. Hence CTC requests the renewal of the crediting period of the project.

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline emissions
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification request
CM	Combined Margin
CO ₂ e	Carbon Dioxide Equivalent
CSPG	China Southern Power Grid
CTC	China Building Material Test & Certification Group Co., Ltd.
DOE	Designated operational entity
DNA	Designated National Authority
EB	Executive Board
EF	Emission factor
ER	Emission reductions
FAR	Forward action request
FSR	Feasibility Study Report
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
LE	Leakage emissions
LOA	Letter of Approval
MEE	Ministry of Ecology and Environment of the People's Republic of China
OM	Operating Margin
PCP	Project Cycle Procedure
PDD	Project Design Document
PE	Project emissions
PP	Project Participant
PPA	Power Purchase Agreement
PS	Project Standard
tCO ₂ e	Tonne of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Ms. Zhao Jinlan holds a bachelor degree in Environmental Science and master degree in Natural Resources Management. She gained more than 8 five years in GHGs CDM project consultancy and project validation/Verification in P. R. China. She has experience in CDM consultation for more than 20 projects that applied technologies of renewable energy, waste disposal, etc. Her qualification and

work experience in CDM demonstrate her sufficient sectoral competence in TA1.2 “Energy industries (Renewable)”

Mr. Sun Chunlin holds a bachelor degree in Building environment and equipment engineering. He gained more than 7 years’ experience in Clean Development Mechanism in P. R. China. He has experience in CDM validation and verification for more than 20 projects that applied technologies of renewable energy, waste heat/gas recovery etc. His qualification and work experience in CDM demonstrate her sufficient sectoral competence in TA1.2 “Energy industries (Renewable)”.

Ms. Li Shuzhen holds a bachelor degree in Environmental Science and master degree in Environmental Engineering. She gained more than 8 years in GHGs CDM, VCS and CCER project consultancy in P. R. China. She has experience in CDM, VCS and CCER consultation for nearly 30 projects that applied technologies of renewable energy, waste disposal, biomass, afforestation and reforestation, etc. Her qualification, industrial experience and experience in CDM demonstrate her sufficient sectoral competence in TA1.2 “Energy industries (Renewables)”.

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	PP	Registered PDD Version 03	Dated 03/08/2011	PP
2.	LRQA	Validation report of the project activity	Dated 18/08/2011	PP
3.	PP	Updated PDD to request a renewal of crediting period of the project version 04	Dated 08/06/2020	PP
4.	PP	Emission Reduction Spreadsheet to request a renewal of crediting period of the project	Dated 03/06/2020	PP
5.	Grid company	Power Purchase Agreement	2015	PP
6.	Ministry of Ecology and Environment of the People's Republic of China	2017 Baseline Emission Factors for Regional Power Grids in China	http://www.mee.gov.cn/ywgz/xdqhbh/wsqtzk/201812/P020181220579925103092.pdf	Others
7.	China Power Yearbook Editing Committee	China Electric Power Yearbook	2014-2016	Others
8.	China Energy Yearbook Editing Committee	China Energy Statistical Yearbook	2014-2016	Others
9.	CDM-EB	Methodology ACM0002 version 20.0	Dated 28/11/2019	Others
10.	CDM-EB	CDM project standard for project activities Version 02.0	Dated 29/11/2018	Others
11.	CDM-EB	CDM validation and verification standard for project activities Version 02.0	Dated 29/11/2018	Others
12.	CDM-EB	CDM project cycle procedure for project activities Version 02.0	Dated 29/11/2018	Others
13.	CDM-EB	Tool to calculate the emission factor for an electricity system Version 07.0	Dated 31/08/2018	Others
14.	CDM-EB	Assessment of the validity of the current/original baseline and update of the baseline at the renewal of the crediting period	Version 03.0.1, dated 02/03/2012	Others
15.	CDM-EB	Project design document form	version 11.0, dated	Others

			31/05/2019	
16.	PP	Operation logs	2011,2012	PP
17.	PP	Photos of monitoring screen and meters	2020	PP
18.	PP	Monitoring report	https://cdm.unfccc.int/Projects/DB/LRQA%20Ltd1314015932.81/view	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

No CLs, CARs, FARs raised.

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	31 May 2019	Revision to: <ul style="list-style-type: none"> Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN) and version 02.0 of the “CDM project cycle procedure for project activities” (CDM-EB93-A06-PROC); Make editorial improvements.
02.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Renewal of crediting period Keywords: crediting period, project activities, validation report		