CREDITING PERIOD RENEWAL VALIDATION REPORT

For the GS Voluntary Project Activity

60 MW Bandirma Wind Power Plant Project

REPORT NO.
GS.22.VAL.002

Date of this issue: 02/10/2023	**KBS Ref. No.:** GS.22.VAL.002
Organizational Unit:	**Client:**
Climate Change Division, KBS	Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş.
Project Design Document	
First PDD:	**Final PDD:**
Version: 09	Version: 13 (Registered Initial PDD version: 08)
Date: 02/06/2022	Date: 14/09/2023 (Registered Initial PDD date: 04/09/2012)

Summary of validation:

Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş. has commissioned KBS Certification Pvt. Ltd. (KBS) to perform the crediting period (CP) renewal validation of the proposed Gold Standard project activity:

Project Title:	60 MW Bandirma Wind Power Plant Project
Methodology Applied:	"ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0"
Sectoral Scopes:	Sectoral Scope 01 (Technical Area 1.2)

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the latest versions of CDM Validation and Verification Standard, Project Cycle Procedure and Project Standard and Gold Standard for Global Goals rules.

The report is based on the assessment of the project design document undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., remote monitoring, online (remote) interviews), the review of the applicable approved methodological and relevant tools, guidance, CDM decisions and requirements of Gold Standard for Global Goals.

The review of the project design documentation and the subsequent follow-up interviews have provided KBS with sufficient evidence to determine the project's fulfilment of all the stated criteria. In our opinion, the project meets all applicable UNFCCC requirements for the validation along with requirements of Gold Standard for Global Goals.

- ☒ Will be recommended to the Gold Standard with a request for renewal of crediting period
- ☐ Is not recommended for renewal of crediting period

	Validation Status:	☐ Findings not closed
Project type:	Large scale	☐ Draft validation report
Subject: GS4GG Crediting Period (CP) Renewal Validation		☒ Final validation report
Validation Team:		**Document Distribution**
Team Leader, Local expert and Technical Expert (TA 1.2): Anıl Söyler		☒ No Distribution without permission from the Client
Technical Review Team:	**Manager T&C**	
Technical Reviewer (TA 1.2): Shikha Sharma Date: 20/07/2022	Name: Mr. Tushar Eknath Chaudhari Date: 22/07/2022	☐ Limited Distribution
Authorized by:		
Name: Kaushal Goyal, Managing Director Date: 02/10/2023		☐ Unrestricted Distribution
Rev Number:	**Date:**	
01	22/07/2022	
02	08/05/2023	
02.1	02/10/2023	

Abbreviations

BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification request
COP	Conference of Parties
DNA	Designated National Authority
DNHA	Do Not Harm Assessment
DR	Document Review
EB	Executive Board
EF	Emission Factor
ERs	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GS4GG	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LSC	Local Stakeholder Consultation
LE	Leakage Emissions
MOP	Meeting of Parties
MoV	Means of Verification
MP	Monitoring Plan
PA	Project Activity
PDD	Project Design Document
PE	Project Emissions
PP	Project Participant
QA/QC	Quality Assurance/Quality Control
RfR	Request for Registration
SD	Sustainable Development
SFR	Sustainability Feedback Round
T&C	Technical & Certification
UNFCCC	United Nations Framework Convention on Climate Change
VER	Verified Emission Reductions
VVB	Validation/Verification Body
VVS	Validation & Verification Standard

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1. Validation Opinion

KBS Certification Services Pvt. Ltd. has been contracted by Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş. to perform a CP renewal validation of the project under GS4GG:

Project title: 60 MW Bandirma Wind Power Plant Project

Host Party: Turkey

The validation was performed in accordance with the GS4GG requirements, latest version of Validation and Verification Standard and related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The proposed GS project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change. In our opinion, the project meets all relevant Gold Standard, CDM criteria and host country criteria.

The project correctly applies CDM methodology: "ACM0002 Grid-connected electricity generation from renewable sources-Version 20.0". It is demonstrated that the project is not a likely baseline scenario. The emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

Based on the information checked and evaluated, KBS confirms that the implementation of the project will result positive contribution to sustainable development as follows:

1) **SDG-6: Clean water and sanitation:** The project is expected to result in avoidance of 4,067,490 m^3/year wastewater discharge to the environment during the 2nd CP.

2) **SDG 7: Affordable and clean energy:** 182,700 MWh/year of net electricity is expected to be supplied by the project activity to the grid during the 2nd CP.

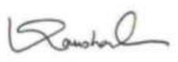
3) **SDG 8: Decent work and economic growth:** The project is expected to provide between 4 and 12 employment annually and at least 1 training is planned to be provided to each employee annually during the 2nd CP.

4) **SDG 13: Climate Action:** The total emission reductions from the project are estimated to be 828,982 tCO_2e during the 2nd CP with an annual average of 118,426 tCO_2e as GS VERs. Besides that, the project is estimated to reduce 18.54 tons/y, 1.78 tons/y and 215.25 tons/y for CO, NMVOC and NOx parameters, respectively during the 2nd CP.

The emission reduction calculations have been checked by the CP renewal validation team and it is deemed likely that the stated amount is achievable given the underlying assumptions do not change.

The project will hence be recommended by KBS for the renewal of crediting period of the project by the Gold Standard.

Authorized Signatory



Signature

Name: Kaushal Goyal

Place: Faridabad

Date: 02/10/2023

2. Introduction

2.1 Objective

KBS Certification Services Pvt. Ltd. has been appointed by “Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş.” to perform the crediting period renewal validation of the project: “60 MW Bandirma Wind Power Plant Project” (GS ID: GS 744) with the CP renewal validation service agreement. The objective of this validation activity is to have an independent third party for the assessment of the project, and to ensure that the selected baseline, estimated emission reductions and monitoring plan is still in line with the applied methodologies and the applicable CDM and Gold Standard requirements. In particular;

- the project's baseline is assessed against “ACM0002: Grid-connected electricity generation from renewable sources” Version 20.0 and “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
- the project’s monitoring plan is assessed against “ACM0002: Grid-connected electricity generation from renewable sources, Version 20.0”
- the projects compliance with, the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria
- CDM Validation and Verification Standard for project activities, version 3.0
- CDM Project Standard for project activities, version 3.0
- CDM Project Cycle Procedure for project activities, version 3.0
- Gold Standard for Global Goals Principles & Requirements, version 1.2

Validation is a requirement for all GS-VER projects that are requesting a renewal of crediting period and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

2.2 Scope

The scope of the validation is the independent and objective review of the Project Design Document (PDD) which is revised for the 2nd CP. The PDD is reviewed against the relevant criteria (please see Section 2.1) including the approved baseline and monitoring methodology. The validation was based on the guidance given in the CDM Validation and Verification Standard for project activities, version 3.0, CDM Project Standard for project activities, version 3.0, CDM Project Cycle Procedure for project activities, version 3.0 and Gold Standard for Global Goals Principles & Requirements, version 1.2.

The validation team has employed a risk based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the PDD. The main focus of the validation team is to determine if the identified baseline is still applicable to the project activity, if the estimated emission reductions for the 2nd crediting period are still conservative and if the monitoring plan is still feasible for the project activity.

The only purpose of the validation is its usage during the renewal of crediting period process as part of the Gold Standard project cycle. Therefore, KBS Certification Services Pvt. Ltd. can’t be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

3. Methodology

3.1 Review of GS-PDD and Additional Documentation

The validation is performed primarily as a document review of PDD, version 13 dated 14/09/2023. The cross checks between information provided in the PDD and information from sources other than those used, if available, the validation team's sectoral or local expertise and, if necessary, independent background investigations.

3.2 Site Visit

As a result of the COVID-19 pandemic, taking into account the rules of relevant national and local authorities (local to the VVB offices as well as to locality of the site visits), World Health Organization (WHO) recommendations, policies of the VVB and other relevant travel restrictions and guidance (for example, a requirement to self-isolate upon return from specific countries), the VVB has skipped the on-site visit. However as per the COVID 19 Interim Measures by GS4GG, the VVB may use alternative measures for auditing like remote (online) audits.

As per para 4.1.1 (b) of COVID 19 Interim Measures, Validation team has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of validation of the project. Along with desk review, validation team has conducted remote site visit interviews corresponding to the project as follows:

- A complete desk review of the PDD, as well as all applicable country legal requirement and supportive evidences have been checked by the validation team.
- Validation team has performed interview with PP representatives through MS Team programme in order to check implementation, project boundary, current situation, management system of the PA, project technology, location, training provided, start date etc.
- Cross checks between information provided by interviewed personnel (i.e. by checking sources) to ensure that no relevant information has been omitted.
- Cross-check evaluation, for information received from interviews, under the scope of all information and references provided in PDD and supporting documents.

The list of people who were interviewed during the validation period and through the online (remote) site visit using MS Team programme is given in the Table 3-1 below:

Table 3-1: List of persons interviewed

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
I1	Yasaroğlu	Emel	Senior Environmental Specialist Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş.	09/06/2022	Project implementation and execution, applicability of original baseline, validity of data and parameters, demonstration of ongoing financial need, organizational structure, training, monitoring plan, the impact of the project activity	Anıl Söyler (Team Leader, Technical Expert (1.2) , Local Expert)
I2	Özşahin	Murat	Senior Electricity Technician (Local), Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş.			
I3	Yakut	Can	Electricity Technician,			

			Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş.		on the local stakeholders	
I4	Öztürk	Hazal	Consultant, Life Enerji Ltd. Şti.			
I5	Parlak	Emrah	Mukhtar (Village Head), Çakıl Village		The impact of the project activity on the local stakeholders and effectiveness of grievance mechanism	
I6	Turp	Mehmet Ali	Villager, Çakıl Village			
I7	Tütüncü	Şahika	Villager (Female), Çakıl Village			

3.3 Major Milestones in Validation

All the issues raised as CLs and CARs during this CP renewal validation activity, were resolved, during the written and oral communications between the Project Participant(s) and VVB CP renewal validation team members. For the resolution of these non-conformities, the project participants modified the project design, rectified the PDD or provided adequate additional explanations or evidences that satisfy the concerns of the validation team members.

Concerns raised in the desk review, the online (remote) audit assessment and the follow up interviews and the responses provided for the raised concerns are documented to guarantee the transparency of the validation process.

The validation timeframe is given in detail in below Table 3-2:

Table 3-2: Validation Timeframe

Action	Timeline	
	From	To
Desk Review including review of PDD	03/06/2022	08/06/2022
Online (remote) site visit	09/06/2022	09/06/2022
Issuance of the initial CP renewal validation findings	14/06/2022	
Review of PPs Initial Set of Responses	23/06/2022	27/06/2022
Closing of all the CARs and CLs	27/06/2022	
Issuance of the Validation Report version 01	27/06/2022	28/06/2022
ITR Process	30/06/2022	20/07/2022
Final completeness check before approval and submission	22/07/2022	22/07/2022
Issuance of the Validation Report (Final version of the report for the submission to GS)	22/07/2022	
Revision of the report based on GS initial comments	08/05/2023	
Final version of the report	02/10/2023	

3.4 Findings

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

A Clarification Request (CL) is issued if information is insufficient or not clear enough to determine whether the applicable CDM/GS requirements have been met.

Corrective Action Request (CAR) is issued, where:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- The CDM/GS requirements have not been met;
- There is a risk that emission reductions cannot be monitored or calculated.

A Forward Action Request (FAR) is issued during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM/GS requirements for CP renewal.

Corrective Action Requests and Clarification Requests are detailed in a separate finding document as in Annex-1 of the report. In this document, the project participant is given the opportunity to resolve the outstanding findings. Information or clarifications provided as a response to a CAR, CL or FAR could also lead to a new request.

According to these principles total of 07 CARs and 02 CLs were raised all of which are listed and closed out as in Annex 1. There has been 01 FAR issued during the CP renewal validation as in Annex 1.

3.5 Internal Quality Control

Following the completion of the assessment process and a recommendation by the assessment team, the validation opinion prepared by Team Leader is independently reviewed by internal Technical Reviewer (TR). TR reviews if all the KBS procedures have been followed and all conclusions are justified in accordance with applicable standards, procedures, guidance and CDM and Gold Standard rules and requirements. The TR either is qualified for the technical area within the sectoral scope(s) applicable to project activity or is supported by qualified independent technical expert at this stage.

The Technical Reviewer will either accept or reject the recommendation made by the validation team. The findings can be raised at this stage and PP must resolve them within agreed timeline.

The opinion recommended by Technical Reviewer will be confirmed by Manager Technical & Certification (T & C) and finally authorized by the Managing Director on behalf of KBS Certification Pvt. Ltd. as final validation opinion. The Technical Reviewer and Manager T&C maybe be same person.

4. Validation Findings

4.1 Approval

Discussion:

N/A (The project activity is a voluntary project hence there is no need for a Letter of Approval (LoA)).

4.2 Authorization

Discussion:

N/A (The project being a voluntary project does not require authorization from the host country).

4.3 Sustainable Development

As this is a voluntary project, it was not necessary to obtain approval of Sustainable Development from Host party DNA. However, it was confirmed during the online (remote) interviews and through the estimated outcomes of the project implementation that the project contributes in achieving the SDG-6, SDG 7 & SDG 8 in addition to SDG 13 as required by Principle-1 of GS for Global Goals. The implementation of the project is expected to be resulted in environmental, social and economic benefits such as:

- SDG-6: Clean water and sanitation: The project is expected to result in avoidance of 4,067,490 m^3/year wastewater discharge to the environment during the 2nd CP.
- SDG 7: Affordable and clean energy: 182,700 MWh/year of net electricity is expected to be supplied by the project activity to the grid during the 2nd CP.
- SDG 8: Decent work and economic growth: The project is expected to provide between 4 and 12 employment annually and at least 1 training is planned to be provided to each employee annually during the 2nd CP.
- SDG 13: Climate Action: The total emission reductions from the project are estimated to be 828,982 tCO2e during the 2nd CP with an annual average of 118,426 tCO_2e. Besides that, the project is estimated to reduce 18.54 tons/y, 1.78 tons/y and 215.25 tons/y for CO, NMVOC and NOx parameters, respectively during the 2nd CP.

4.4 Modalities of Communication

Discussion:

N/A (The project being a voluntary project modalities of communication is not applicable).

4.5 Project Design Document

Discussion:

The validation team hereby confirms that the PDD complies with the latest forms of the guidance documents for completion of PDD version 1.2.

4.6 Project Description

Discussion:

Bandırma Enerji ve Elektrik Üretim Ticaret A.Ş. has installed and commissioned a 89.7 MWm / 87 MWe wind power plant with 20 Vestas V90/3 MW and 9 Vestas V112/3.3 MW brand wind turbines, among which 20 of them having a capacity of 3 MW and 9 of them having capacity of 3.3 MW and it is located in Bandırma District, Marmara region, Balıkesir city, Turkey as already confirmed during the initial validation.

The current capacity of the project during the 2nd CP is 87 MWe and nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) had been included on 14/12/2014 and 27/02/2015, respectively. However, the capacity addition (design change) process hasn't been initiated by PP in line with the Gold Standard rules, so the capacity addition component is not eligible and the next verification will be handled without the capacity addition component. Gold Standard registered capacity of the project (60 MWe) is considered and the electricity generation and the emission reduction of the added nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) through SCADA screenshots will be excluded for the next verification.

The project is still operational at the time of CP renewal validation and expected lifetime is 25 years. The initial crediting period start date of the project is 24/07/2015 with choice of renewable crediting period. This has been verified from the information provided by the last verification report and its GS performance review document.

The project was operational on 18/09/2009 as confirmed through the provisional acceptance protocol and registered on 24/07/2014 under the Gold Standard Registry with the registration number GS 744.

As confirmed through last verification report and its GS performance review document, first crediting period was between 24/07/2015- 23/07/2022 and second crediting period is between 24/07/2022 – 23/07/2029 (both dates are included).

The PP has been granted a 49 year generation license (initial date is 31/12/2007 and last amendment date is 09/07/2015) by the Turkish Energy Market Regulatory Authority for the proposed project under the provisions of Law No. 4628 governing the electricity market in the Republic of Turkey.

The purpose of the project is to produce renewable electricity using wind as the power source and to contribute to Turkey's growing electricity demand through a sustainable and low carbon technology. The project will displace the same amount of electricity generated by the grid dominated with fossil fired power plants. The annual emission reduction estimated by the project is 118,426 tCO_2e.

The coordinates of turbines as indicated in the Section A.2 of the PDD have been checked and confirmed during the online (remote) site visit as in the initial validation process.

Findings:

CAR-1 was issued regarding this issue and closed out during the CP renewal validation. Please see CAR-1 in Annex-1 of the report for further details.

Opinion:

It could be confirmed by the validation team that PDD contains a transparent and accurate description of the project activity and provides reader a clear understanding of the project activity.

4.7 Baseline and monitoring methodology

4.7.1 General requirement

Discussion:

The project activity is a large scale "renewable energy" project as per the GS4GG Renewable Energy Activity Requirements and follows the approved CDM large scale methodology, "ACM0002: Grid-connected electricity generation from renewable sources" version 20.0 which is the latest version of methodology applicable at the time of CP renewal validation. The version of the methodology in the first validation and crediting period was ACM0002 version 12.1.0.

Findings:

No findings raised with regards to the applied methodology.

Opinion:

The applied baseline and monitoring methodology and relevant tools are valid and applicable to the project activity.

4.7.2 Applicability of selected methodology to the project activity

Discussion:

Although the project is already registered Gold Standard project, the project has been assessed against all the applicability conditions justified under Section B.2 of the PDD against the criterion specified in the applied methodology.

Findings:

No findings were raised.

Opinion:

It can be concluded through the document review and online (remote) site visit observations by the validation team that the project meets all the applicability criteria established in the methodology. Besides that, it could be confirmed by the validation team there hasn't been any change with the applicability criteria of the methodology comparing with the initially registered version of the methodology, ACM0002 version 12.1.0.

4.7.3 Project boundary

Discussion:

The project boundary has been defined in accordance with the applied methodology which states that**,** "the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project power plant is connected to". Therefore, there is no change with the boundary of the project during the second crediting period of the project as confirmed through the document review including generation licence of the project and online (remote) site visit observations.

Findings:

No findings were raised.

Opinion:

It can be concluded through the document review and online (remote) site visit observations by the validation team that the boundary has been defined in line with the applied methodology and there is no change with the boundary of the project during the second crediting period

4.7.4 Baseline identification

Discussion:

The project activity was earlier registered using the methodology ACM0002, Version 12.1.0. The PDD has been revised for the second crediting period according to the latest approved version of the methodology ACM0002, Version 20.0 and the latest applicable PDD template. All the applicability conditions of the methodology have been justified appropriately in the revised PDD.

There has been no significant change in the relevant policies and circumstances, which would impact the baseline scenario since 04/09/2012 (date of initially registered PDD, version 08) till date. The revised PDD takes into account all the relevant national and sectoral policies and circumstances that were applicable as on 14/09/2023. The discussion on the same has also been provided in the updated PDD.

The project activity is supplying power to the Turkish national grid. Thus, the baseline scenario continues to remain same as earlier, as follows: "The electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources".

The grid emission factor has been updated and fixed ex-ante for the 2nd renewable crediting period and the national emission factor published by the Turkish Ministry of Energy and Natural Resources has been used. The grid emission factor in the earlier PDD was 0.5949 tCO2/MWh with 0.75 and 0.25 weightage factor given to 'operating margin' and 'build margin', respectively. The grid emission factor in the updated PDD is 0.6482 tCO2/MWh with 0.7258 tCO2/MWh for the operating margin and 0.4153 tCO2/MWh for the build margin, respectively. VVB confirms that the updated grid emission factor in line with the accordingly with the Turkish Ministry of Energy and Natural Resources latest publication[1] dated as 06/10/2021 and the same has been

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[1] Please see the link: (https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/T%C3%BCrkiyeUlusalElektrik%C5%9EebekesiEmisyonFakt%C3%B6r%C3%BC/Belgeler/EK-2.pdf

calculated to be in line with the “IPCC’s Clean Development Methodology Tool 07-Tool to calculate the emission factor for an electricity system” version 07.0 as indicated in the relevant publication.

Findings:

No findings were raised.

Opinion:

The assessment of the applied baseline suggests that the baseline methodology has been correctly applied and the most appropriate and conservative baseline scenario has been selected for the second crediting period:

a) All data and values used by the project proponent have been listed and referenced in the PDD indication their sources;
b) Relevant documents have been used have been used for the establishment of baseline scenario, interpreted appropriately;
c) All the relevant national and sectoral policies and circumstances have been considered;
d) The applied methodology’s applicability has been found in accordance and the baseline identification has been found appropriate by the validation team.
e) The relevant justification has been provided in the revised PDD.

Therefore, it can be concluded through the document review by the validation team that the baseline has been defined in line with the applied methodology and there is no expected change with the baseline of the project during the second crediting period comparing with the initial one. Besides that, step wise approach in the 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 has been followed by PP and the same has been checked and confirmed by the validation team.

4.7.5 Algorithms and/or formulae used to estimate SDG outcomes

Discussion:

SDG-6: Contribution

SDG-6 Target: 6.3 Indicator 6.3.1: Water quality and quantity

The project is expected to provide the avoidance of 4,067,490 m^3/year wastewater discharge comparing with the baseline situation during the second crediting period. The net electricity generation will be checked from the EPİAŞ records and the wastewater discharge factor linked to electricity generation is taken as: 26 m^3/GWh, as fixed ex-ante for the second crediting period. The avoided wastewater amount will be calculated accordingly through the multiplication of the net electricity generation and the wastewater discharge factor linked to electricity generation.

The GS SDG tool, version 01 for the project activity has been checked and found appropriate. Further, identification of relevant SDG indicator for project activity i.e. for SDG 6, defined monitoring indicator, designed monitoring and reporting plan, project assessment claim for baseline and project scenario has been further assessed and found consistent with GS SDG Impact tool manual requirements and GS PDD.

Baseline situation*:*

In baseline situation, the baseline value is expected to be 4,067,490 m^3/year for the second crediting period.

Project situation:

The project is expected to generate 690 m^3/year through the daily water consumption of the employees for the second crediting period.

SDG-7: Contribution

SDG-7 Target 7.2 Indicator 7.2.1:

The project is expected to generate net electricity of 182,700 MWh annually and the same has been checked through the project's feasibility report dated as 20/03/2008, the related Excel sheet document and registered PDD for the first crediting period. This value will be monitored continuously and recorded monthly by the electricity meters that belong to TEIAS, Turkish Electricity Transmission company. The main source of generation data is EPIAS (the financial settlement centre of TEIAS) records. The quantity of net electricity delivered to the grid is cross checked with the meter reading records of TEIAS meters.

There are two electricity meters, one main meter and one back up meter. All meters are inspected and sealed by TEIAS before the commissioning of the power plant in order to be protected from interference by any of the parties and the relevant information about the electricity meters including the serial numbers have been provided by the PP. The periodic calibration of the meters will be done every 10 years after the initial assembly of the meters as in the initial validation but there will be also periodic meter tests handled by TEIAS.

The GS SDG tool, version 01 for the project activity has been checked and found appropriate. Further, identification of relevant SDG indicator for project activity i.e. for SDG 7, defined monitoring indicator, designed monitoring and reporting plan, project assessment claim for baseline and project scenario has been further assessed and found consistent with GS SDG Impact tool manual requirements and GS PDD.

The currently available electricity meters are as follows at the time of CP renewal validation as in Table 4-1 below:

Table 4-1: Electricity meters details

Meter type	Meter model	Serial number	Accuracy class	Last meter test date
Main meter	EMH - LZQJXC	7019993	0.2s	11/08/2021
Back-up meter	EMH - LZQJXC	7019994	0.2s	11/08/2021

The current capacity of the project during the 2nd CP is 87 MW and nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) had been included on 14/12/2014 and 27/02/2015, respectively. However, the capacity addition (design change) process hasn't been initiated by PP in line with the Gold Standard rules, so the capacity addition component is not eligible and the next verification will be handled without the capacity addition component. Gold Standard registered capacity of the project (60 MW) is considered and the electricity generation and the emission reduction of the added nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) through SCADA screenshots will be excluded for the next verification.

Baseline situation*:*

In baseline situation, there is no renewable electricity generation. Therefore, baseline outcome benefit is zero.

Project situation:

The net electricity from the project will be measured through the electricity meters which have been controlled and maintained by TEIAS. The project is expected to generate net electricity of 182,700 MWh annually and 1,278,900 MWh totally during the second crediting period.

SDG 8: Contribution

<u>SDG 8 Target 8.8 Indicator 8.8.2: Quantitative employment and income generation</u>

<u>SDG 8 Target 8.8 Indicator 8.8.2: Qualitative employment</u>

Number of employment is monitored through Social Security System (SGK) records. The project is expected to provide between 4-12 employments and at least 1 training for each employee annually during the second crediting period. The target will be monitored by the number of full-time employees with the SGK records during the verification process.

The positions at the wind projects require skilled workers, which will be achieved by adequate training. Training attendance records or training certificates will be provided during the verification process. The project provides workers with a safe and healthy work environment.

Fair wage and working hours and occupational injuries will also be monitored through the interviews with the employees.

The GS SDG tool, version 01 for the project activity has been checked and found appropriate. Further identification of relevant SDG indicator for project activity i.e. for SDG 8, defined monitoring indicator, designed monitoring and reporting plan, project assessment claim for baseline and project scenario has been further assessed and found consistent with GS SDG Impact tool manual requirements and GS PDD.

Baseline situation*:*

In baseline situation, no new job created and there is no training. Therefore, baseline outcome benefit is zero.

Project situation*:*

In project situation, the number of created job will be recorded by the PP and 4-12 employments are expected to be provided. Besides that, at least 1 training for each employee annually during the second crediting period.

SDG 8 contribution = Number of created jobs (4-12 employment) and number of trainings (at least 1 training for each employee annually) are expected to be provided.

SDG-13: Contribution

SDG 13 Target 13.2 Indicator 13.2.2:

Baseline emissions correspond to emission reductions and are calculated as the net electricity generated by the project activity, multiplied with grid emission factor for grid connected power generation in year y.

Emission reductions will be calculated by considering the EPIAS records for the net electricity generated and the grid emission factor, 0.6482 tCO2/MWh, published by Turkish Ministry of Energy and Natural Resources and fixed ex-ante during the 2^{nd} CP. The annual emission reduction estimated by the project is 118,426 tCO_2e approximately during the 2^{nd} CP.

Besides that, CO, NMVOC and NOx emissions avoidance through the project will be monitored within SDG-13 during the 2^{nd} CP and the fixed ex-ante emission intensity values are 0.101 tons/GWh , 0.010 tons/GWh and 1.178 tons/GWh, respectively. Therefore, annual emission avoidance with project implementation is expected to be 18.54 tons, 1.78 tons and 215.25 tons, respectively during the 2^{nd} CP.

The GS SDG tool, version 01 for the project activity has been checked and found appropriate. Further, identification of relevant SDG indicator for project activity i.e. for SDG 13, defined monitoring indicator, designed monitoring and reporting plan, project assessment claim for baseline and project scenario has been further assessed and found consistent with GS SDG Impact tool manual requirements and GS PDD.

The baseline emissions are calculated as follows in line with the ACM0002 version 20.0:

$BEy = (EGy - EG_{baseline}) \times EF_{grid,CM,y}$

<u>Baseline Emissions</u>:

Baseline emission has been calculated by equation no 3 of the applied methodology:

$BEy = (EGy - EG_{baseline}) \times EF_{grid,CM,y}$ Where:

BE_y = Baseline emissions in year *y* (tCO_2/yr).

EG_y = Electricity supplied by the project activity to the grid (MWh) which are sourced from monthly EPIAS records

$EG_{baseline}$ = Baseline electricity supplied to the grid in the case of modified or retrofit facilities (MWh). For new power plants this value is taken as zero.

$EF_{grid,CM,}y$ = Combined margin CO_2 emission factor for grid connected power generation in year *y* calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" $EF_{grid,CM,}y$ *value is* 0.6482 tCO2/MWh, calculated based on OM, BM emission factors published by Turkish Ministry of Energy and Natural Resources and will be fixed ex-ante during the second crediting period.

Therefore, annual average baseline emissions (round down value for conservativeness) for the project activity are expected to be as follows during the second crediting period:

$BE_y = EG_{facility,y} * EF_{grid,CM,y}$ = 182,700 x 0.6482 = 118,426 tCO_2e

<u>Project Emissions</u>:

The project activity involves the generation of electricity by the wind power plant. Therefore, the generation of electricity does not result in greenhouse gas emissions and so, the project emission is taken as 0 tCO2e / year in line with ACM0002 version 20.0.

<u>Leakage (LE_y)</u>:

The technology used in this project is neither transferred to nor transferred from another activity, so the leakage is considered to be 0 tCO2e / year in line with the applied methodology, ACM0002 version 20.0.

Emission reduction:

The total emission reduction achieved in a year would be:

$ER_y = BE_y – PE_y - LE_y$

Where,
ER_y = Emission reductions for the year for which ERy is being calculated in tCO2e

BE_y = Baseline emissions for the year for which BEy is being calculated in tCO2e (The emission reduction of the added nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) through SCADA screenshots will be excluded)

PE_y =Project emissions for the year for which PEy is being calculated in tCO2e

LE_y = Leakage in year y in tCO2e

$ER_y = BE_y = EG_y * EF_{grid,CM}$ = 182,700 MWh/year * 0.6482 tCO2/MWh = 118,426 tCO2e/year

Findings:

CAR-2, CAR-3 and CAR-7 were issued regarding this issue and closed out during the CP renewal validation. Please see CAR-2, CAR-3 and CAR-7 in Annex-1 of the report for further details.

Opinion:

The validation team confirms that:

a) The selection of the equations of the applied methodology is appropriate.
b) The assumptions used by the project have been clearly referenced and listed in the PDD.

c) The data included in the PDD has been adopted from authentic sources based on appropriate assumptions.

d) Appropriate values are reasonably used relating to the project activity.

e) The baseline methodology has been correctly applied for the calculation of emission reductions.

f) The calculations are traceable and the values can be replicated using the data provided in the PDD.

4.8 Additionality

Discussion:

N/A (Additionality has been checked and confirmed during the initial validation of the project, so no new additionality assessment hasn't been handled during the crediting period renewal validation).

Findings:

No findings were raised.

Opinion:

The project activity is additional as checked and confirmed during the initial validation and in compliance with the GS4GG Principle & Requirements,

4.8.1 Ongoing Financial Need

The signed declaration by PP dated as 01/06/2022 and confirming that the finance derived from GS certification has significant contribution to the bank loan repayment of the project has been provided. Besides that, the bank loan payback records for 2018-2028, the loan repayment records for 2018, 2019, 2020 and 2021 years and GS issuance records through GS registry link of the project (https://registry.goldstandard.org/projects/details/1170) have been provided.

Findings:

CAR-4 was issued regarding this issue and closed out during the CP renewal validation. Please see CAR-4 in Annex-1 of the report for further details.

Opinion:

The project activity is additional as checked and confirmed during the initial validation and in compliance with the GS4GG Principle & Requirements. Similarly, it can be concluded and confirmed by the validation team through the document review (through by an overview of project loan repayment related records and GS issuance records) that the finance derived from GS certification contributes to the ongoing financial sustainability of the project.

4.8.2 Double Counting

VVB has checked the I-REC Registry (https://evident.services/device-register) wherein in total 320 projects from Turkey are listed as of CP renewal validation report date and this project isn't available within I-REC Registry database. Similarly, VCS project database (http://vcsprojectdatabase.org/#/home) and GCC project database (https://projects.globalcarboncouncil.com/pages/submitted_projects) were checked and this project isn't available within VCS and GCC projects databases, either. Given that CDM projects are not applicable in Turkey and the project does not appear on domestic REC scheme, I-REC, VCS and GCC registries, it could be confirmed that no RECs and other VER carbon credits are being issued for the project at the time of this CP renewal validation. Besides that, the issuance of no REC and VERs has been issued for the project through the other schemes has been confirmed through the signed and sealed declaration letter by PP and dated as 01/06/2022.

Findings:

No findings were raised.

Opinion:

It could be confirmed by the validation team through the document review that no RECs and other VER carbon credits are being issued for the project at the time of this CP renewal validation.

4.9 Application of Monitoring Methodology and Monitoring Plan

Discussion:

The monitoring plan for the project activity is provided in Section B.7 of the PDD. The following parameters will be monitored during the 2nd CP in line with ACM0002 version 20.0 and the relevant CDM and Gold Standard requirements as in Table 4-2 below:

Table 4-2: Monitoring plan parameters

Parameter and description	Relevant SDG Indicator	Unit	Monitoring
Water quality and quantity	SDG-6 (Target: 6.3 Indicator 6.3.1)	m^3	a) Average Amount of Cooling Wastewater Avoided annually: The avoided wastewater amount will be calculated accordingly through the multiplication of the net electricity generation through EPIAS records and the fixed ex-ante wastewater discharge factor (26 m^3 / GWh) linked to electricity generation. b) Average Amount of Domestic Wastewater Generated annually: The amount of domestic waste water due to the daily activities of the employees will be calculated through the exact number of employees and the fixed ex-ante value (0.189 m^3) for the daily water usage per worker is
Net electricity exported to the grid by the project ($EG_{facility,y}$)	SDG7 (Target:7.2 Indicator:7.2.1)	MWh	This value will be monitored continuously and recorded monthly by the electricity meters that belong to TEIAS, Turkish Electricity Transmission company. The main source of generation data is EPIAS (the financial settlement centre of TEIAS) records. The quantity of net electricity delivered to the grid is cross checked with the meter reading records of TEIAS meters. 182,700 MWh/year of net electricity is expected to be supplied by the project activity to the grid during the 2nd CP. The current capacity of the project during the 2nd CP is 87 MWe and nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) had been included on 14/12/2014 and 27/02/2015, respectively. However, the capacity addition (design change) process hasn't been initiated by PP in line with the Gold Standard rules, so the capacity addition component is not eligible and the next verification will be handled without the capacity addition component. Gold Standard registered capacity of the project (60 MWe) is considered and the electricity generation and the emission reduction of the added nine turbines (T-21, T-22, T-23, T-24, T-25, T-26, T-27, T-28 and T-29) through SCADA screenshots will be excluded for the next verification.

Quantitative employment	SDG 8 (Target 8.8 Indicator 8.8.2)	Number of employment	Number of employment is monitored through Social Security System (SGK) records. The project is expected to provide between 4-12 employments during the second crediting period. The target will be monitored by the number of full-time employees with the SGK records during the verification process.
Quality of employment	SDG 8 (Target 8.8 Indicator 8.8.2)	Number trainings given to employees	It is expected to be provided at least 1 training for each employee annually during the second crediting period. The positions at the wind projects require skilled workers, which will be achieved by adequate training. Training attendance records or training certificates will be provided during the verification process.
Air quality (GHG emission reduction through the project)	SDG 13 (Target: 13.3 Indicator: 13.3.1)	tCO_2e	Emission reductions will be calculated by considering the EPIAS records for the net electricity generated and the grid emission factor, 0.6482 tCO2/MWh, published by Turkish Ministry of Energy and Natural Resources and fixed ex-ante during the 2nd CP. The annual emission reduction estimated by the project is 118,426 tCO_2e approximately during the 2nd CP.
Air quality (Emissions other than GHGs, i.e. CO, NMVOC and NOx emissions avoidance)	SDG 13 (Target: 13.3 Indicator: 13.3.1)	t	CO, NMVOC and NOx emissions avoidance through the project will be monitored within SDG-13 during the 2nd CP and the fixed ex-ante emission intensity values are 0.101 tons/GWh, 0.010 tons/GWh and 1.178 tons/GWh, respectively. Therefore, annual emission avoidance with project implementation is expected to be 18.54 tons, 1.78 tons and 215.25 tons, respectively during the 2nd CP.

It can be concluded that the monitoring plan has provisions for the real measurement of the parameter to reach to the achieved emission reductions.

Findings:

CAR-6 was issued regarding this issue and closed out during the CP renewal validation. Please see CAR-6 in Annex-1 of the report for further details.

Opinion:

By document review and interviews handled during the online (remote) site visit, it is confirmed by the validation team that the monitoring plan is in compliance with the requirements stated in the applied monitoring methodology can be properly implemented and all monitoring arrangements are feasible within the project design, and the means of implementation of the monitoring plan, including data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions to be achieved by the project activity can be properly reported and verified. Besides that, SDG Impact Tool is assessed and confirmed by the validation team that it has been prepared in line with the requirements of SDG Impact Tool Manual and excel-based standardized SDG Impact Tool template.

Sampling Plan:

N/A.

4.10 Environmental Impacts

Discussion:

The certificate of EIA Not Necessary Decision document dated 03/04/2009 based on Preliminary EIA Report has been issued by Balıkesir Governorship Environment and Forestry Directorate for the project.

The hazardous waste records including waste filters, contaminated waste, waste containers dated as 14/09/2017, 20/10/2018, 13/11/2020, 12/11/2021 and 25/11/2021 have been provided. Besides that, there hadn't been any complaint about the noise and waste management practices by the interviewed local stakeholders from Çakıl Village during the online (remote) CP renewal validation site visit.

Findings:

No findings were raised.

Opinion:

Based on the mentioned document review and interviews with the local stakeholders, it could be confirmed by the validation team that the project activity complies with the local environmental regulations including Environmental Law (numbered as 872 and dated as 17/07/2008), Electricity Market Law (numbered as 4628 and dated as 03/03/2001), Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy (numbered as 5346 and dated as 18/05/2005) and Energy Efficiency Law (numbered as 5627 and dated as 02/05/2007) and any negative environmental impacts haven't been expected during the second crediting period.

4.11 Local Stakeholder Comments

Discussion:

The local stakeholders had been interviewed about the following issues during the online CP renewal validation site visit:

- Noise due to the project activity
- Sufficiency of local employment
- Waste management practices implemented by PP
- Impact of the project on flora and fauna including bird life
- Impact of the project on soil condition

It was also concluded that the grievance mechanism is in place and this was also confirmed by the interviewed local stakeholders during the online CP renewal validation site visit. Similarly, the signed document (dated as 09/06/2022) about the contact details of the PP relevant staff in case of any complaint by Çakıl Village and whether there is any complaint received by the Mukhtar (Village Head) from the local stakeholders.

Findings:

CAR-5 was issued regarding this issue and closed out during the CP renewal validation. Please see CAR-5 in Annex-1 of the report for further details.

Opinion:

Based on the mentioned document review and interviews with the local stakeholders, it could be confirmed by the validation team that the grievance mechanism in place and there hadn't been any complaint by the interviewed local stakeholders during the online CP renewal validation site visit.

4.12 Forward Action Requests (FARs) from Previous Verification

There are four FARs in total from the 2nd verification process including its GS performance review stage as in below:

FAR-1: "During on site visit, new logbook was provided to the Mukhtar. For that, in the next verification period, logbook should be checked by the VVB".

The signed letter (dated as 05/04/2022) by Çakıl Village Mukhtar (Village Head) confirming about the availability of grievance logbook to be used in case of recording of any complaint has been provided. Besides that, the same has also been confirmed by the interviewed local stakeholders during the online (remote) CP renewal validation site visit. Finally, the photographic evidences of complaint logbook have also been provided. Therefore, this FAR has been closed out.

FAR-2: "In-line with GS4GG Principles and Requirements, VVB and PP shall consider the rule below for future monitoring activities:

5.1.39: An annual update report shall be provided to GS -when successfully Transitioned to GS4GG (05/03/2020)-for each monitoring year by the end of next calendar year for which verification is not completed".

The annual report submission needs to be checked during the next verification and FAR-1 has been issued as in Annex 1.

FAR-3: "During next Verification site visit, VVB shall ask for inputs from local stakeholders regarding the project activity impacts other than the Mukhtar".

The grievance mechanism is in place and this was also confirmed by the interviewed local stakeholders during the online CP renewal validation site visit. Similarly, the signed document (dated as 09/06/2022) about the contact details of the PP relevant staff in case of any complaint by Çakıl Village and whether there is any complaint received by the Mukhtar (Village Head) from the local stakeholders. Besides that, two other stakeholders (one is female) in addition to Çakıl Village Mukhtar (Village Head) have been interviewed during the online (remote) CP renewal validation site visit. Therefore, this FAR has been closed out.

FAR-4: As per provided evidence, ornithological monitoring for Safeguarding Principle 9.10 has been terminated since it is concluded that the project doesn't pose any risk, by the related governing authorities. However, during next monitoring period, PP is requested to conduct regular site vetting by appointed personnel for observation of nests and carcasses on project site and record the same.

The ornithology reports dated as 01/2016 and 07/2016 and prepared by the relevant technical experts and confirming that there hasn't been any significant impact on the birds due to the project have been provided. Besides that, there hasn't been any complaint by the interviewed local stakeholders regarding the impact of the project on the birds during the online (remote) CP renewal validation site visit. Finally, monthly bird monitoring forms checked by the plant site staff and covering the period January 2020-June 2022 have been provided. Therefore, this FAR has been closed out.

Findings:

CL-2 was issued regarding this issue and successfully closed. Please see CL-2 for further details.

Opinion:

The FARs from the previous verification have been checked. FAR-1 has been closed out based on the document review including signed letter by Çakıl Village Mukhtar (Village Head) and interviews with the local stakeholders. FAR-3 has been closed out based on the document review including signed document (dated as 09/06/2022) by Çakıl Village Mukhtar and interviews with the local stakeholders. FAR-4 has been closed out based on the interviews with the local stakeholders during the during the online (remote) CP renewal validation site visit and document review including the monthly bird monitoring forms checked by the plant site staff. FAR-2 shall be checked during the next verification and FAR-1 has been issued as in Annex 1.

5. Safeguarding Principles Assessment

PP has completed the safeguarding principles assessment analysis and presented assessment in the Gold standard PD. The assessment has been performed in accordance to requirements prescribed in the GS4GG Principles & Requirements, Version 1.2 & Safeguarding Principles & Requirements version 1.2.

The other pollutants (noise level) under Principle 9.4 Release of pollutants, soil condition (quantity and type of hazardous waste) under landscape modification, biodiversity under high conservation value areas and critical habitats and technology transfer and technological self-reliance under negative economic consequences will be monitored during the 2nd CP.

There hadn't been any complaint about the noise by the interviewed local stakeholders from Çakıl Village during the online (remote) CP renewal validation site visit. The noise level under Principle 9.4 Release of pollutants will also be monitored during the 2nd CP through the interviews with the local stakeholders.

The hazardous waste records including waste filters, contaminated waste, waste containers dated as 14/09/2017, 20/10/2018, 13/11/2020, 12/11/2021 and 25/11/2021 have been provided. Besides that, there hadn't been any complaint by the interviewed local stakeholders during the online (remote) CP renewal validation site visit regarding the waste management practices. The hazardous waste including waste oil under Principle 9.4 Release of pollutants will also be monitored during the 2nd CP through the hazardous waste transfer and disposal records.

The ornithology reports dated as 01/2016 and 07/2016 and prepared by the relevant technical experts and confirming that there hasn't been any significant impact on the birds due to the project have been provided. Besides that, there hasn't been any complaint by the interviewed local stakeholders regarding the impact of the project on the birds during the online (remote) CP renewal validation site visit. Biodiversity (number of bird strikes to the turbines) under Principle 9.10 High conservation value areas and critical habitats will also be monitored during the 2nd CP through the regular site vetting by an appointed personnel for the observation of nests and carcasses.

The technology transfer and technological self-reliance parameter under Principle 6.2 Negative economic consequences will also be monitored during the 2nd CP through the document review including purchased equipment or agreements, if any, and site visit observations.

The expropriation records including the title deed registry records dated as 29/06/2015, 30/06/2015 and 02/07/2015 have been submitted by PP and the expropriation process has been completed in line with the provided information by PP. Besides that, there hasn't been any complaint by the interviewed local stakeholders regarding this issue during the online (remote) CP renewal validation site visit. The fair land compensation measures parameter under Principle 4.3 Land Tenure and Other Rights will be monitored only for initial monitoring period of 2nd CP through the interviews with the local stakeholders in case of any possible misconceptions regarding the expropriation.

Findings:

No findings were raised.

Opinion:

It could be confirmed by the validation team through the document review, online site visit observations and interviews with the local stakeholders that the safeguarding principles have been appropriately identified and discussed and the project activity meets the Gold Standard for Global Goals requirements for Safeguarding Principles Assessment.

The above indicated parameters will also be monitored during the 2nd CP of the project.

6. References

No.	Author	Title	References to the document	Provider
D1	PP	Registered PDD	Version 08, dated 04/09/2012	PP
D2	Bureau Veritas	Initial Validation Report	Version 03, dated 04/07/2013	PP
D3	PP	Revised CP Renewal PDD (initial)	Version 09, dated 02/06/2022	PP
D4	PP	Revised CP Renewal PDD (intermediate)	Version 10, dated 22/06/2022	PP
D5	PP	Revised CP Renewal PDD (intermediate)	Version 11, dated 18/07/2022	PP
D6	PP	Revised CP Renewal PDD (intermediate)	Version 12, dated 26/04/2023	PP
D7	PP	Final CP Renewal PDD	Version 13, dated 14/09/2023	PP
D8	PP	ER Calculation Excel Spreadsheet corresponding to initial and intermediate version of CP renewal PDD	Version 01, dated 02/06/2022	PP
D9	PP	ER Calculation Excel Spreadsheet corresponding to final version of CP renewal PDD	Version 02, dated 18/07/2022	PP
D10	UNFCCC	ACM0002 Grid-connected electricity generation from renewable sources	Version 20.0	UNFCCC CDM website
D11	Gold Standard	GS4GG Principles & Requirements (https://globalgoals.goldstandard.org/101-par-principles-requirements/)	Version 1.2, dated 23/10/2019	Gold Standard website
D12	Gold Standard	Renewable Energy Activity Requirements https://globalgoals.goldstandard.org/standards/202_V1.2_AR_Renewable-Energy-Activity-Requirements.pdf	Version 1.4, dated 16/08/2021	Gold Standard Website

D13	Gold Standard	Stakeholder Consultation and Engagement Requirements https://globalgoals.goldstandard.org/102-par-stakeholder-consultation-requirements/	Version 1.2, Effective from 24/10/2019	Gold Standard Website
	Gold Standard	SDG Impact Tool Manual (https://globalgoals.goldstandard.org/430g-iq-sdg-impact-tool-manual/)	Version 1.1, dated 14/03/2022	Gold Standard Website
D14	Gold Standard	SDG Impact Tool Excel Spreadsheet	Version 01, dated 02/06/2022	PP
D15	Gold Standard	SDG Impact Tool Excel Spreadsheet	Version 02, dated 26/04/2023	PP
D16	Gold Standard	Audit Techniques Excel Template	01/06/2022 08/05/2023	-
D17	UNFCCC	CDM Validation and Verification Standard for Project Activities	3.0	UNFCCC CDM website
D18	UNFCCC	CDM Project Standard for Project Activities	3.0	UNFCCC CDM website
D19	UNFCCC	CDM Project Cycle Procedure for Project Activities	3.0	UNFCCC CDM website
D20	UNFCCC	Tool to calculate the emission factor for an electricity system	7.0	UNFCCC CDM website
D21	UNFCCC	Tool for the demonstration and assessment of additionality	7.0	UNFCCC CDM website
D22	UNFCCC	Tool to calculate project or leakage CO2 emissions from fossil fuel combustion	3.0	UNFCCC CDM website
D23	UNFCCC	Tool: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period	3.1	UNFCCC CDM website

D24	Turkish Ministry of Energy and Natural Resources	Turkish National Electricity Network Emission Factor Information (https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/T%C3%BCrkiyeUlusalElektrik%C5%9EebekesiEmisyonFakt%C3%B6r%C3%BC/Belgeler/EK-2.pdf)	06/10/2021	Turkish Ministry of Energy and Natural Resources website
D25	Gold Standard	Final Issuance Review Document (2nd Verification of 1st CP)	07/06/2021	Gold Standard Registry
D26	Gold Standard	Transition Review Document under GS for the Global Goals	28/12/2020	Gold Standard Registry
D27	Rina SPA	Final Second Verification Report (1st CP)	Version 03Aa dated 25/05/2021	Gold Standard Registry
D28	TEIAS	Meter Test Reports	12/04/2019 11/08/2021	PP
D29	Turkish Energy Market Regulatory Authority	Electricity Generation Licence (Initial Issuance & Last Amendment)	31/12/2007 09/07/2015	PP
D30	Turkish Ministry of Environment and Urbanization	Hazardous Waste Disposal Records	14/09/2017 20/10/2018 13/11/2020 12/11/2021 25/11/2021	PP
D31	-	Photographic Evidences of Meters	09/06/2022	PP
D32	Akdeniz University	Ornithology Reports	01/2016 07/2016	PP
D33	PP	Signed Declaration by PP (About Confirmation and Avoidance of Double Counting)	01/06/2022	PP
D34	Turkish Ministry of Environment and Urbanization	EIA Not Necessary Decision	03/04/2009	PP

D35	TEIAS	Provisional Acceptance Protocols	18/09/2009 16/10/2009 30/06/2010 11/08/2011 14/12/2014 27/02/2015	PP
D36	-	CP Renewal Validation Service Agreement	02/02/2022	PP
D37	Garrad Hassan	Feasibility Report	20/03/2008	PP
D38	Local Stakeholders	Signed Letter by the Mukhtar (About the Contact Details of PP Relevant Staff in case of Any Complaint by Çakıl Village Stakeholders)	09/06/2022	PP
D39	Garanti BBVA Bank	Bank Loan Payback Schedule for 2018-2028	03/12/2021	PP
D40	PP	Bank Loan Repayment Records for 2018, 2019, 2020 and 2021	-	PP
D41	PP	Annual Report for 2021	26/12/2021	PP
D42	PP	ODA Declaration	01/06/2021	PP
	PP	Signed Declaration by PP (Confirming That the Finance Derived From GS Certification Has Significant Contribution To The Bank Loan Repayment of the Project)	01/06/2022	PP
	-	Site Photos verified during remote audit	09/06/2022	-

Annex 1: Detailed Findings

Summary of findings	**CAR**	**CL**	**FAR**
	07	**02**	**01**

Table 1. CL from this validation

CL ID	01	**Section no.**	B.4 and B.5 of the PDD	**Date:** 14/06/2022
Description of CL				

a) Please clarify clearly whether the investment analysis and additionally assessment had been re-conducted in the Section B.5 of the PDD. b) Please clarify the initial sentence in the Step 1.1 of the Section B.4 of the PDD. c) Please clarify the applicability of Step 2 of "Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" to the project in the Section B.4 of the PDD.	
Project participant response	**Date:** 22/06/2022
a) Necessary explanation has been now added in the Section B.5 of the PDD. b) Step 1.1 of Section B.4 is now clarified. c) The baseline scenario is defined according to the ''ACM0002 Grid-connected electricity generation from renewable sources'', as stated in the project's PDD registered for the first crediting period. As confirmed in Step 1, the project baseline scenario for the new crediting period is the same as the first crediting period and complies with the existing legal framework. No additional that came into force that has an impact on the project activity and the project activity is still in line with the available law and regulations. This information has been also added in section B.4 (please see Step 2.1) of the PDD.	
Documentation provided by project participant	
Revised PDD	
VVB assessment	**Date:** 27/06/2022
a) Ok Closed (Section A.1.2 of the PDD has been revised accordingly). b) Ok Closed (Section B.5 of the PDD has been revised by PP accordingly). c) Ok Closed (Step 1.1 of the Section B.4 of the PDD has been revised by PP accordingly). d) Ok Closed (Section B.4 of the PDD has been revised by PP accordingly).	

CL ID	02	**Section no.**		**Date:** 14/06/2022
Description of CL				
There are four FARs from the 2nd the verification process including its GS performance review stage as in below: a) FAR-1: In-line with GS4GG Principles and Requirements, VVB and PP shall consider the rule below for future monitoring activities:5.1.39: An annual update report shall be provided to GS -when successfully transitioned to GS4GG (05/03/2020)- for each monitoring year by the end of next calendar year for which verification is not completed. b) FAR-2: During next verification site visit, VVB shall ask for inputs from local stakeholders regarding the project activity impacts other than the Mukhtar. c) FAR-3: As per provided evidence, ornithological monitoring for Safeguarding Principle 9.10 has been terminated since it is concluded that the project doesn't pose any risk, by the related governing authorities. However, during next monitoring period, PP is requested to conduct regular site vetting by appointed personnel for observation of nests and carcasses on project site and record the same. d) FAR-4: During on site visit, new logbook was provided to the Mukhtar. For that, in the next verification period, logbook should be checked by the VVB.				
Project participant response				**Date:** 22/06/2022

a) Annual Report for 2021 has already been prepared and uploaded to the SC App. The prepared annual report has been now provided to the VVB. The 2022 Annual Report will be uploaded to the SC App as part of the 3rd verification process, if required. This FAR also will be checked in third verification stage by GS. b) Regarding the 3rd verification of the Bandırma WPP, site visit with VVB also made by online meeting on 29/06/2022 and local stakeholders other than the Mukhtar also participated in the remote site visit. No negative feedback has been received from Mukhtar and stakeholders. c) It is stated that the plant operator should make visual observations during the operation phase, and if bird deaths are observed, an evaluation will be made by experts. Between January 2020 and June 2022, a regular site vetting was conducted by appointed personnel every month. The bird monitoring form by the plant staff have also been provided. d) Photos of logbook have been provided to VVB.
Documentation provided by project participant
Annual report for 2020, Bird Monitoring Forms and Photographic Evidence of Logbook
VVB assessment — **Date:** 27/06/2022
a) Ok Closed (The annual report for 2020 has been uploaded to the Sustaincert. That of 2021 will be uploaded in case the next verification is not completed until the end of 2022. Please see FAR-1 in this verification). b) Ok Closed (The grievance mechanism is in place and this was also confirmed by the interviewed local stakeholders during the online CP renewal validation site visit. Similarly, the signed document (dated as 09/06/2022) about the contact details of the PP relevant staff in case of any complaint by Çakıl Village and whether there is any complaint received by the Mukhtar (Village Head) from the local stakeholders. Besides that, two other stakeholders (one is female) in addition to Çakıl Village Mukhtar (Village Head) have been interviewed during the online (remote) CP renewal validation site visit). c) Ok Closed (The monthly bird monitoring forms checked by the site staff covering the period January 2020-June 2022 have been provided). d) Ok Closed (The photographic evidences of complaint logbook have been provided).

Table 2. CAR from this validation

CAR ID	01	**Section no.**	Cover page & PDD Template	**Date:** 14/06/2022
Description of CAR				
a) Please correct the project name in the cover page of the PDD. b) Please correct the initial page of the PDD. c) Please include the version of registered PDD in the cover page of the revised PDD. d) Please include Annex-3 of the PDD in line with the relevant PDD template.				
PP response				**Date:** 122/06/2022
a) Project name has been revised as ‘’Mut Wind Power Plant,Turkey’’ in the cover page of the PDD. b) Initial page of the PDD has been now corrected. c) The version of registered PDD is now included on the cover page of the PDD. d) Annex-3 of the PDD is now included in the PDD in line with the PDD template.				
Documentation provided by PP				
Revised PDD				

VVB assessment	Date: 27/06/2022
a) Ok Closed (PDD has been revised accordingly). b) Ok Closed (The initial page of the PDD has been revised accordingly). c) Ok Closed (Cover page of the PDD has been revised accordingly). d) Ok Closed (PDD has been revised accordingly).	

CAR ID	02	**Section no.**	A.1 and A.3 of the PDD	**Date:** 14/06/2022
Description of CAR				
a) Please include the estimated value for the training parameter under SDG-8 in Table-1. b) Please provide the reference for the estimated electricity generation amount referred in the Table-1 since the mentioned value could be found in the referred evidence document. c) Please include the start and end dates of first crediting period in the Table-2. d) Please correct the reference as “Hata! Başvuru kaynağı bulunamadı.” throughout the PDD. e) Please correct the last sentence of Section A.3 of the PDD.				
PP response				**Date:** 22/06/2022
a) The estimated value for the training parameter is now included under SDG-8 in Table-1, considering ‘’at least 1 training will be provided to each employee annually during the crediting period’’ and this information for the training parameter is now included under SDG-8 in Table-1 and other related sections. b) Necessary reference for the estimated electricity generation amount has already been provided in section A.1 of the PDD. (Please see footnote 1). Related documents for reference of the estimated electricity generation amount have been provided to VVB. In addition, this electricity generation value has been also confirmed by GS in registered PDD during the first crediting period. c) Start and end dates of first crediting period have been now included in the Table-2 of the PDD. d) The references are now revised throughout the PDD. e) Last sentence of Section A.3 of the PDD has been now corrected.				
Documentation provided by PP				
Revised PDD				
VVB assessment				**Date:** 27/06/2022
a) b) Ok Closed (Table-1 in PDD has been revised accordingly). c) Ok Closed (Table-2 in PDD has been revised accordingly). d) Ok Closed (PDD has been revised accordingly). e) Ok Closed (Section A.3 of PDD has been revised accordingly).				

CAR ID	03	**Section no.**	B.2 and B.6.4 of the PDD	**Date:** 14/06/2022
Description of CAR				
a) Please include the estimated values for CO, NMVOC and NOx emissions under SDG-13 parameter in the Section B.6.4 of the PDD and Excel spreadsheet document. b) Please include ex ante estimates of each SDG impact including all SDG-6, SDG-8 and SDG-13 parameters. c) Please correct the table for SDG-7 in the Section B.6.4 of the PDD. d) Please clarify the meaning and relevance of last sentence in the Section B.2 of the PDD.				
PP response				**Date:** 22/06/2022

a) Estimated values for CO, NMVOC and NOx emissions are now included under SDG-13 parameter in the Section B.6.4 of the PDD. b) Ex-ante estimates of the SDG-8, SDG-6 and SDG-13 parameters are now included in section B.6.3 of the PDD. c) For SDG 7, the previous calculation is correct. For this reason, no changes have been made to the table for SDG 7 in the Section B.6.4 of the PDD. For clarify, calculations regarding the number of days have been given clearly. d) The last paragraph of the Section B.2 assessed the applicability of used Tools. For clarify, applicability assessment of the tools used is now provided in a tabular format in Section B.2.
Documentation provided by PP
Revised PDD and ER Calculation Excel Spreadsheet

VVB assessment	**Date:** 27/06/2022
a) Ok Closed (Section B.6.4 of the PDD and Excel spreadsheet have been revised by PP accordingly). b) Ok Closed (Section B.6.4 of the PDD and Excel spreadsheet have been revised by PP accordingly and the ex ante estimates of each SDG impact including all SDG-6, SDG-8 and SDG-13 parameters have been included). c) Ok Closed (Section B.6.4 of the PDD has been revised by PP accordingly). d) Ok Closed (Section B.2 of the PDD has been revised by PP accordingly).	

CAR ID	04	**Section no.**	B.5.2 of the PDD	**Date:** 14/06/2022
Description of CAR				
a) Please provide a short narrative that demonstrates how the revenue from Gold Standard certification is material to the ongoing sustainability of the project along with the relevant evidence. b) As per Principles & Requirements document paragraph 4.1.52, please include some data and numbers to show the contribution of GS revenues (this info does not have to be in PDD but has to be submitted to VVB. c) Please provide the declaration about the details of the ongoing financial need.				
PP response				**Date:** 22/06/2022
a) A short narrative is now provided that demonstrates how the revenue from Gold Standard certification is material to the ongoing sustainability of the Project. b) The documents showing the contribution of GS revenues to the Project Activity are now provided to the VVB for review. All relevant evidence such as loan payback records, length of loan, swift messages and GS issuance records have been provided to VVB. c) The related document is now provided to the VVB for review.				
Documentation provided by PP				
VVB assessment				**Date:** 27/06/2022
a) Ok Closed (Section B.5.2 of the PDD has been revised by PP accordingly). b) Ok Closed (Section B.5.2 of the PDD has been revised by PP accordingly). c) Ok Closed (The signed declaration has been revised by PP accordingly).				

CAR ID	05	**Section no.**	C.2.2, E.1 and E.2 of the PDD	**Date:** 14/06/2022

Description of CAR	
a) Please correct the sentence in the Section C.2.2 of the PDD. b) Please provide the procedures or methods used for engaging local stakeholders in the Section E.1 of the PDD. c) Please include the current status of the on-going communication with the local stakeholders in the Section E.1 of the PDD. d) Please provide the procedures or methods used for documenting the outcomes of the local stakeholder communication in the Section E.1 of the PDD. e) Please provide the signed document about the contact details of the PP relevant staff in case of any complaint by relevant villages and whether there is any complaint received by the Muhktar from the local stakeholders. f) Please explain in the Section E.1 of the PDD why no complimentary consultation has been conducted with the stakeholders regarding CP renewal. g) Please clarify whether there is any complaint during the initial crediting period in the Section E.1 of the PDD.	
PP response	**Date:** 22/06/2022
a) Sentence has been corrected in the Section C.2.2 of the PDD. b) Procedures/methods used for engaging local stakeholders has been added in the Section E.1 of the PDD. c) Current status of the on-going communication with the local stakeholders has been included in the Section E.1 of the PDD. d) The procedures used for documenting the outcomes of the local stakeholder communication are now provided in Section E.1. e) The signed document is now provided f) Necessary information has been now added in section E.1 of the PDD. g) It is now clarified in Section E.1 of the PDD.	
Documentation provided by PP	
Revised PDD and Signed Declaration	
VVB assessment	**Date:** 27/06/2022
a) Ok Closed (Section C.2.2 of the PDD has been revised by PP accordingly). b) Ok Closed (Section E.1 of the PDD has been revised by PP accordingly). c) Ok Closed (Section E.1 of the PDD has been revised by PP accordingly and the details about the current status of the on-going communication with the local stakeholders have been provided). d) Ok Closed (Section E.1 of the PDD has been revised by PP accordingly and the details about procedures or methods used for documenting the outcomes of the local stakeholder communication like the submission of the complaint log book and the confirmation by the Mukhtar that there hasn't been any complaint have been provided). e) Ok Closed (The signed document by Çakıl Village Mukhtar and dated as 09/06/2022 has been provided). f) Ok Closed (Section E.1 of the PDD has been revised by PP accordingly). g) Ok Closed (Section E.1 of the PDD has been revised by PP accordingly).	

CAR ID	06	**Section no.**	B.7.1 of the PDD and Excel spreadsheet	**Date:** 14/06/2022
Description of CAR				

a) Please check the monitoring parameters in the Section B.7.1 of the PDD since this is the second crediting period of the project. b) Please clarify the reference to 2012 year in the C25 and D25 cells of Monitoring Plan Excel spreadsheet. c) Please clarify the reference to 2018 year in the B35 and D35 cells of Monitoring Plan Excel spreadsheet. d) Please correct the number of days for 2022 and 2029 in the Monitoring Plan Excel spreadsheet. e) Please revise the PDD based on above corrections.	
PP response	**Date:** 22/06/2022
a) Soil Condition and Dust Emission parameters are related to the construction phase of the project and have been regularly monitored during the 7-year period in the 1st crediting period. The project has been in operation phase for many years and there is no longer a need to monitor these parameters during the 2nd crediting period. Therefore, the parameters Soil Condition and Dust Emission have been removed from section B.7.1 of the PDD. Workers were kept up about the necessity of protecting wildlife during the first 7-year crediting period and 7 years is sufficient time to be informed about this issue. So, the biodiversity parameter has been revised accordingly in section B.7.1 of the PDD. b) Monitoring Plan Excel spreadsheet has been now revised based on Turkey's most recent data. c) Turkish Statistical Institute publishes the wastewater discharge data every two years. The latest wastewater data published by the TURKSTAT belongs to the year 2020. The wastewater discharge amount calculations and electricity generation data are now revised according to the Turkey's most recent data. d) Number of days for 2022 and 2029 have been checked and there is no problem in the number of days for these years. For clarify, how the number of days is calculated is now given in the Monitoring Plan Excel spreadsheet document. Since the number of days is correct, no changes have been made to the values given for the years 2022 and 2029. e) PDD has been revised based on the above corrections.	
Documentation provided by PP	
Revised PDD and ER Calculation Excel Spreadsheet	
VVB assessment	**Date:** 27/08/2022
a) Ok Closed (Section B.7.1 of the PDD has been revised by PP accordingly). b) c) Ok Closed (Monitoring Plan Excel spreadsheet has been revised and most recent available data has been referred). d) OK Closed (The number of days have been corrected). e) Ok Closed (PDD has been revised accordingly).	

CAR ID	07	**Section no.**	N/A	**Date:** 14/06/2022
Description of CAR				
Please provide the SDG Impact Tool using the relevant template by Gold Standard.				
PP response				**Date:** 22/06/2022
The SDG Impact Tool is now provided. However, SDG 6 and its related indicators are not defined for "Renewable" projects in the "Mapping" sheet of the SDG Impact Tool excel document. For this reason, " Step 4 " part could not be filled automatically for SDG 6. Nevertheless, required values have been also added in the related parts for SDG 6.				
Documentation provided by PP				
SDG Impact Tool				

VVB assessment	**Date:** 27/06/2022
Ok Closed (SDG Impact Tool has been provided by PP).	

Table 3. FAR from this validation

FAR ID	01	**Section no.**	N/A	**Date:** 14/06/2022
Description of FAR				
An annual update report shall be provided to GS for each monitoring year by the end of next calendar year for which verification is not completed.				
PP response				**Date:** 22/06/2022
This will handled during the next verification.				
Documentation provided by PP				
VVB assessment				**Date:** 27/06/2022
This will checked during the next verification.				

Annex 2: Certificate of Competence

Personnel Name:		**Anıl Söyler**	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☐
Technical Reviewer	☒	Local Expert (Turkey)	☒
Area(s) of Technical Expertise			
Sectoral Scope	**Technical Area**		
SS 01: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources		
SS 13: Waste handling and disposal	TA 13.1 Waste Handling and Disposal		
	TA 13.2 Manure		
Approved by	Manager Competence & Training		
Approval date:	03/01/2022		

Personnel Name:		**Shikha Sharma**	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☒
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope	**Technical Area**		
SS 01: 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 13: Waste handling and disposal	TA 13.1 Waste Handling and Disposal		
	TA 13.2 Manure		
Approved by	Manager Quality		
Approval date:	09/06/2022		

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History of the document

Version	Date	Nature of revision	Reviewed by	Approved by
6.0	20/02/2015	Revised For VVS 7.0	Manager CDM Quality 21/02/2015	Managing Director 24/02/2015
5.0	08/10/2014	Section 4.8.4 and 4.8.5 are revised based on the corrective actions proposed during the performance assessment.	Manager CDM Quality 13/10/2014	Managing Director 14/10/2013
4.0	29/07/2013	Revised for VVS 3.0 and 4.6 section added	Manager CDM Quality 04/08/2012	Managing Director 08/08/2013
3.0	05/09/2012	Revised for VVS track	Manager CDM Quality 07/09/2012	Managing Director 10/09/2012
2.0	31/12/2011	Comprehensively revised	Manager CDM Quality 31/12/2011	Managing Director 31/12/2011