Gold Standard for the Global Goals

TEMPLATE

MONITORING REPORT

PUBLICATION DATE **14.10.2020**

VERSION **v. 1.1**

RELATED SUPPORT **- TEMPLATE GUIDE Monitoring Report v. 1.1**

This document contains the following Sections

KEY PROJECT INFORMATION

Key Project Information

GS ID (s) of Project (s)	GS574
Title of the project (s) covered by monitoring report	Çataltepe 16 MW Wind Farm Project, Turkey
Version number of the PDD/VPA-DD (s) applicable to this monitoring report	06
Version number of the monitoring report	0.3
Completion date of the monitoring report	27/05/2024
Date of project design certification	CP1 23/09/2009 CP2 09/08/2023
Date of Last Annual Report	na
Monitoring period number	2nd (1st of CP2)
Duration of this monitoring period	20/01/2023-29/02/2024 (included both days)
Project Representative	Alize Enerji Elektrik Üretim A.Ş. Rüzgar Karbon ve Enerji Danışmanlık Sanayi Ticaret Limited Şirketi
Host Country	Turkey
Activity Requirements applied	☐ Community Services Activities ☒ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Methodology (ies) applied and version number	ACM0002: Grid connected electricity generation from renewable electricity generation - Version 21.0
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Table 1 - Sustainable Development Contributions Achieved

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
SDG 7: Affordable and Clean Energy	T: 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix I: 7.2.1 "Renewable energy share in the total final energy consumption	20/01/2023 to 31/12/2023: 33,923.985 01/01/2024 to 29/02/2022: 7,829.640 Total of 20/01/2023 to 29/02/2024: 41,753.626	MWh
SDG 8: Decent Work and Economic Growth	T: 8.5 By 2030 achieve full and productive employment and decent work for all 8.5.2 Unemployment rate, by sex, age and persons with disabilities	The project provides 7 employees	People
SDG 8: Decent Work and Economic Growth	T: 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious 8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	7 people trained on health and safety issues during this monitoring period	Number
SDG 13: Climate Action	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning 13.3.2 Number of countries that have communicated the strengthening of institutional,	20/01/2023 to 31/12/2023: 22,009 01/01/2024 to 29/02/2022: 5,079	GSVERs

	systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following	Total of 20/01/2023 to 29/02/2024: 27,088	

Table 2 – Product Vintages

Start Dates	End Dates	VER
20/01/2023	31/12/2023	22,009
01/01/2024	29/02/2024	5,079

SECTION A. DESCRIPTION OF PROJECT

A.1. General description of project

The Çataltepe 16 MW Wind Farm Project, hereafter referred to as the project, involves a grid-connected onshore wind farm project in the Çataltepe village, Havran district of Balıkesir Province. And this Çataltepe 16 MW Wind Farm Project, Turkey belongs to Alize Enerji Elektrik Üretim A.Ş.The project consists of 8 wind turbines with an installed capacity of 2000 kW (E) each. With a total installed power generation capacity of 16 MW, the project is estimated to supply grid as 62,414 MWh and 39,618 tCO_2-eq per annum and which total to reduction of 277,328 tCO2-eq over these first 7-year crediting period according to registered PDD. To be realist and conservative side, instead of to registered PDD, the average annual value of Çataltepe WPP's electricity generation between 2012 and 2021 have been used for new CP2 renewal crediting period. The project is estimated to supply grid as 41,143.028 MWh[1] and expected annual emission reductions of the project is approximately 26,693 tCO_2/year during for the 2nd crediting period.

[1] The average value of Çataltepe WPP's electricity generation between 2012 and 2021. (10 years). The related excel file has been provided to the VVB

And this project has supplied to grid net 41,753.626 MWh and 27,088 tCO2 emission reductions during this 2nd monitoring period.

The Project aims to generate electricity from wind energy and feed it to the national electricity grid. The project foresees to install 8 wind turbines with 2,000 kW installed capacity each and to feed this electricity without storing to the national grid via a transmission line of 15 km at the Edremit II transformer station.

The Project Proponent has been granted a 49-year generation license 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 activity is to produce renewable electricity using wind as the power source and to contribute to Turkey is growing electricity demand through a sustainable and low carbon technology. The project displaces the same amount of electricity generated by the grid dominated with fossil fired power plants.

The project activity produces positive environmental and economic benefits through the following aspects:

- Displacing the electricity generated by fossil fuel fired power plants by utilising the renewable resources to avoid environmental pollution and GHG emissions,
- Contributing the economic development of the region by providing sustainable energy resources,
- Increasing the income and local standard of living by providing job opportunities for the local people.
- Production of pillar and other equipment in Turkey indirectly cause the know-how transfer and empower the local industry.

The project area belongs to the Ministry of Environment and the proposed project activity has been the installation of a grid-connected renewable power plant/unit. In the absence of the project activity, the electrical energy would have been delivered to the grid through a mix of existing power generation resources.

The project's capacity was increased to 27.75 MW in 2019 with another 5 Enercon E92 turbines each of them 2.35 MWm capacity. But PP can use only 16 MW capacity's electricity generation. And monitoring of net energy generation (SDG7), PP has used subtract the SCADA values of unregistered turbines from gross generation data ofEPIAS.

The second crediting period includes between 19/04/2018 and 18/04/2025.PP has made on site visit with VVB on 3/05/2022 and will be made another physical site visit on 26/03/2024. PP can claim the credits start from 20/01/2023 in the second crediting period.
During the monitoring of net energy generation (SDG7) value calculation, PP has simply subtracted the SCADA values of unregistered 5 turbines' electricity generation from all 13 turbines gross generation data of EPIAS.

The project applies methodology ACM0002 Version 21.0, which is an approved methodology under Gold Standard.

- The project type is wind which is an eligible project type as it is in accordance with Eligible Project Types & Scope under Renewable Energy Activity Requirements.
- The project activity results in displacement of electricity from thermal power stations while contributing to sustainable development of Turkey. Hence, the project contributes to the Gold Standard vision and mission.

- Wind is an approved project type and does not require approval from Gold Standard.
- This project activity is not associated with geo-engineering or energy generated from fossil fuel or nuclear, fossil fuel switch, nor does it enhance or prolongs such energy generation.

Time schedule of the project activity may be seen in in table 3 as followed:

Table 3: Time schedule of the project activity

Event	Actual / Expected	Date
Gold Standards registration of Project Activity	Actual	23/09/2009
Commissioning of T1 to T8 with first Acceptance Protocol of Ministry of Energy	Actual	19/04/2011
Starting and ending of first crediting period	Actual	19/04/2011-18/04/2018
First monitoring period	Actual	19/04/2011-31/07/2012
Commissioning of T10 and T13 Acceptance Protocol of Ministry of Energy*	Actual	08/02/2019
Commissioning of T9,T11 and T12 Acceptance Protocol of Ministry of Energy**	Actual	28/02/2019

Starting and Ending Second Crediting Period	Actual	19/04/2018-18/04/2025
Second monitoring period	Actual	20/01/2023-29/02/2024

*,** The PP cannot use the renewable electricity energy producing of these 5 turbines as SDG 7 and claim the ERs of these turbines as SDG13 during the CP2 crediting period and this monitoring period.

A.2. Location of project

The Çataltepe 16 MW Wind Farm Project, Turkey is located in Çataltepe village, Havran district of Balıkesir province, Marmara Region. The geographical location of the Project covers an area between 39º 31' N, 27 o 08' E and 39º 30' N, 27 º 09' E approximately. Please see below the maps showing the location of the project activity in Turkey

Figure 1 The location of the project activity in Marmara Region, Turkey

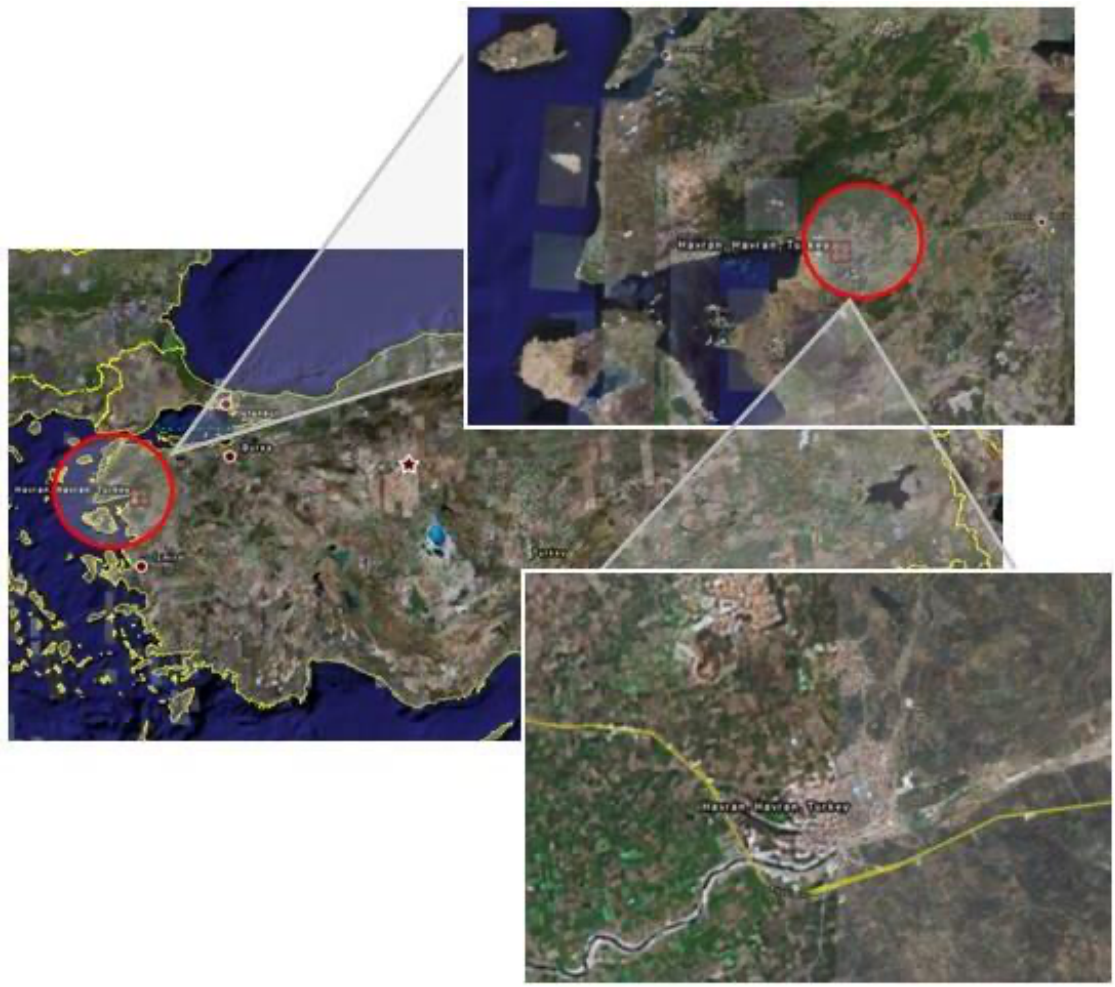
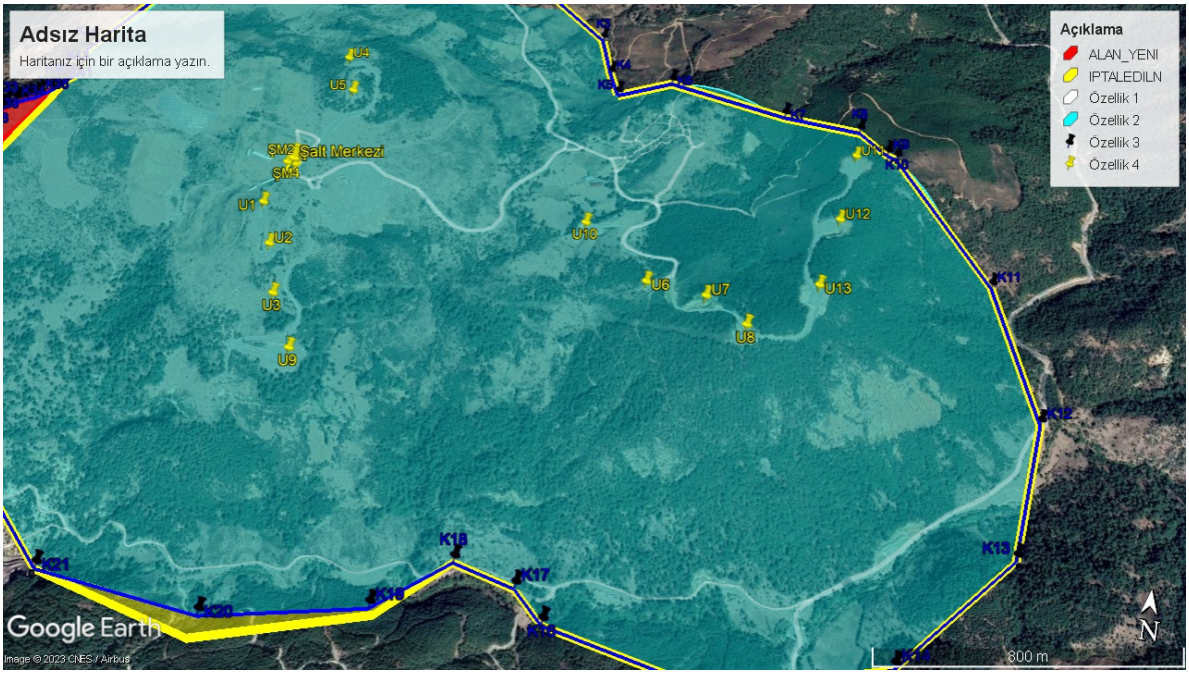


Figure 2: The kmz map of Cataltepe WPP with indicating turbine



The Project location has a distance of 1 km to Hacımahmutlar neighbourhood, 2 km to Çataltepe village, 2.5 km to Damlar village, 5 km to Havran and 85 km to Balikesir.

Table 4:Registered Turbine Coordinates[2]

	E	N	E	N
Turbine Nr	**UTM Coordinates**		**Longitude / Latitude**	
T1	512066	4374648	27° 08’ 25’’	39° 31’ 17’’
T2	512130	4374493	27° 08’ 28’’	39° 31’ 12’’
T3	512182	4374331	27° 08’ 30’’	39° 31’ 07’’
T4	512176	4375322	27° 08’ 30’’	39° 31’ 30’’
T5	512232	4375164	27° 08’ 32’’	39° 31’ 34’’
T6	513326	4374529	27° 09’ 18’’	39° 31’ 13’’
T7	513515	4374480	27° 09’ 26’’	39° 31’ 11’’
T8	513643	4374376	27° 09’ 31’’	39° 31’ 08’’

Please find below the 5 turbine coordinates which is unregistered turbine for the

[2] Generation License

Cataltepe WPP for CP2. The electricity generation values of these turbines have not been included during this monitoring period

Table 5: Unregistered Turbine Coordinates[3]

T9	512270	4374168
T10	513102	4374771
T11	513987	4375172
T12	513927	4374857
T13	513859	4374560

A.3. Reference of applied methodology

The project applies CDM-EB approved "ACM0002: Grid-connected electricity generation from renewable sources - Version 21.0"[4]

The methodology refers to:

- "Tool for the demonstration and assessment of additionality", Version 07.0.[5]
- "Combined tool to identify the baseline scenario and demonstrate additionality", Version 07.0[6]
- "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion", Version 03.0[7]
- "Tool to calculate the emission factor for an electricity system", Version 07.0.[8]
- "Tool to determine the remaining lifetime of equipment", Version 01[9]

A.4. Crediting period of project

Type of crediting period: Renewable

Date of the first crediting period: 19/04/2011-18/04/2018

Date of the second crediting period: 19/04/2018-18/04/2025

[3] Generation License
[4] https://cdm.unfccc.int/UserManagement/FileStorage/ZPFJL01OU2RYC6N3HASIXV7K84QBG9
[5] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf
[6] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-02-v7.0.pdf
[7] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-03-v3.pdf
[8] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf
[9] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf

Length: 7 years and 0 months, which is planned to be renewed. (21 years) This is second crediting period. And last design renewal period (CP3) will include between 19/04/2025 and 17/04/2032.

SECTION B. IMPLEMENTATION OF PROJECT

B.1. Description of implemented project

The Project Activity involves the generation of renewable energy from wind. It thereby displaces grid electricity that is partly generated from fossil fuel fired power plants. The wind-driven blades are connected to an electricity generator, which produces electrical energy and supplies it to the grid without storage. Within the scope of the project, all precautions have been taken for the environment during the design phase and the project has been implemented in line with the environmental law and related regulations.

Enercon, a German turbine manufacturer, has been selected as technology provider due to the quality of its products in terms of high reliability, grid friendliness, low maintenance requirements and low noise levels. The turbines have been delivered from Germany to the project site. Blades and masts have been produced in Turkey.

The Project have been composed of gearless, variable speed, variable pitch control wind turbines with a total installed capacity of 16 MW. The Project includes 8 units of E82 turbines with an output of 2,000 kW and a rotor diameter of 82 m. The Project does not include additional 5 units of E92 turbines with an output of 2,350 kWe/2,350 kWm and a rotor diameter of 92 m.

This Çataltepe WPP has been connected to the 34.5 medium-voltage 15km transmission lines to the Edremit II transformer station. The metering has been done at substation before electricity is fed into the grid.

The Project reduces greenhouse gas emissions by displacing electricity from grid connected fossil fuel fired power plants, thereby contributing to climate change mitigation along with other environmental benefits. The lifetime of the project activity has been supposed as 25 years.

The main equipment used in the Project is wind turbines with the following specifications.

Table 6: Technical specifications of the Enercon E82 turbines[10]

Parameter	Value
Manufacturer	Enercon
Type of Turbines Used	E82 2,000 kW each
Number of turbines	8xE82
Turbine concept	Gearless, variable pitch control
Rotor diameter	82 m (E82)
Rotational speed	6-19.5 rpm(E82)
Cut out wind speed	28-34 m/s
Remote monitoring:	Enercon SCADA

The line diagram shows the connection points of Çataltepe 16 Wind Farm Project with the national grid. The wind farm is connected to Edremit II transformer station on 34.5 kV medium voltage level. Two electricity meters are installed at Çataltepe WPP. These meters are working in parallel.

B.1.1 Forward Action Requests

FAR # 1: VVB performing periodic verification for the MP within CP2 shall check that the carbon crediting within CP2 are issues only for the period 03/05/2019 to 18/04/2025.

PP Response # 1: PP has made on site visit with VVB on 3/05/2022 and will be made another one on 26/03/2024. So, PP are monitoring between 20/01/2023 and 29/02/2024 now and then continue the remaining volume of CP2 with 3rd performance process.

B.2. Post-Design Certification changes

B.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

There is no request for deviation applied during this monitoring period.

[10] https://www.enercon.de/en/products/ and registered PDD

B.2.2. Corrections

There are no corrections applied during this monitoring period.

B.2.3. Changes to start date of crediting period

There are no changes to start date of crediting period.

B.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

There are no permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline.

B.2.5. Changes to project design of approved project

There are no changes to project design of approved project.

SECTION C. DESCRIPTION OF MONITORING SYSTEM APPLIED BY THE PROJECT

According to the Turkish Law and Regulations, the methods of monitoring the net electricity fed to the grid and quality control and assures are explained below:

Data processing and archiving: Monitoring data is collected in accordance with the agreement done between the project owner and UEDAŞ Electricity Distribution Company (UEDAŞ) which provides the infrastructure for the connection to the national grid. The metering system is defined in the agreement as two groups: main meter and secondary meter. The design of the metering system is checked and approved by UEDAŞ before commissioning of the plant. The technical specifications of the power meters should be in line with Measure and Metering Devices Regulation by Ministry of Industry and Trade. In addition, the Communique for Power Meters announced by Energy Market Regulations Authority (EMRA) requires all meters to be in line with either Turkish Standards Institution or International Electro Technical Commissions Standards. The meters are placed at the point the electricity is fed to the grid and sealed on behalf of both parties. This prevents any intervention and assures the accuracy and quality of the measurements. All requirements and specifications of the meters have

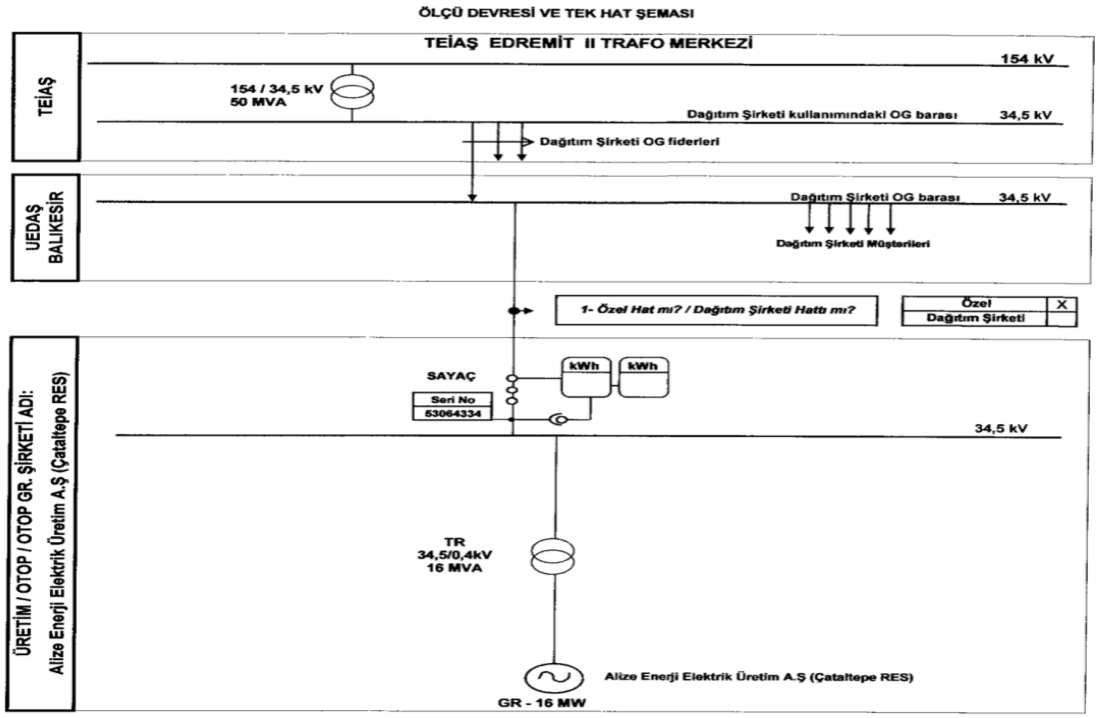
been done according to Communique on the counter to be used in the Electricity Market by Energy Market Regulatory Authority on 22/04/2011. The Enercon SCADA system also stores various data (e.g. electricity generated by each turbine, energy supplied etc.) electronically.

Data has been stored electronically, during the crediting period and at least two years after the last issuance of credits for the wind farm project activity in the concerning crediting period. The project participants also archived a hardcopy of meter reading protocols, scanned them, and stored them. The invoices are kept by the Project owner as hardcopies. Furthermore, the EPIAS system stores the reports electronically, which is accessible to the Project owner whenever necessary.

The project's capacity was increased to 27.75 MW in 2019. But PP can use only 16 MW capacity's electricity generation.
During the monitoring of net energy generation (SDG7) value calculation, PP has simply subtracted the SCADA values of unregistered 5 turbines' electricity generation from all 13 turbines gross generation data of EPIAS.

The following figure represents the line diagram of the project activity:

Figure 3: Line Diagram of Çataltepe 16 MW Wind Farm Project

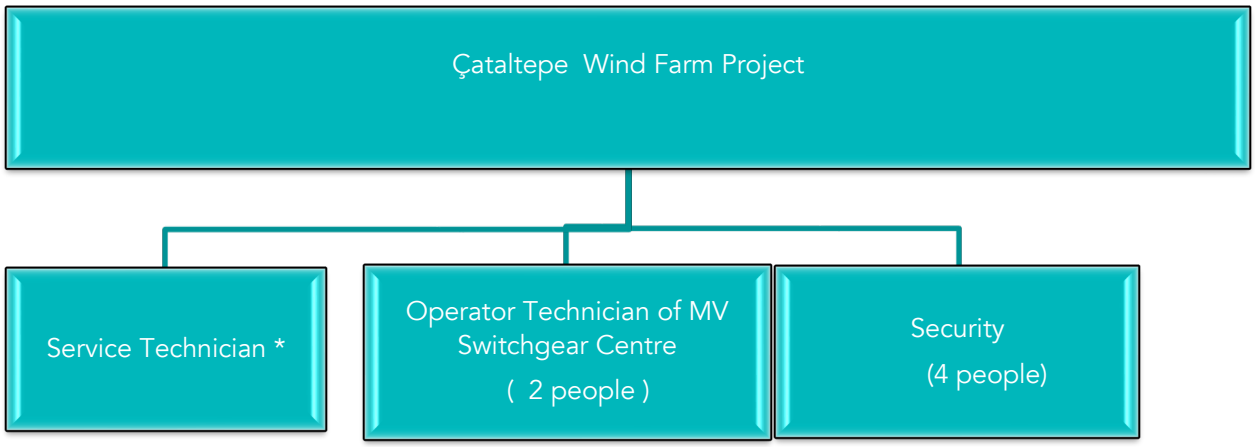


QA/QC procedures: The main and secondary meter readings are recorded monthly and cross-checked whether calibration is required. The capacity of the transmission line connected is to 34.5 kV, the accuracy class for power meters have been defined in the Communiqué for Power Meters. The calibration frequency of the meters is 10 years. It is under the responsibility of UEDAŞ. Since UEDAŞ meters are sealed by UEDAŞ, the project proponent cannot intervene with the devices.[11] The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. Data measured by meters have been crosschecked with the OSOS (Monthly Electricity Meter Reading) records.

Roles and responsibilities: The authority and responsibility for registration, monitoring, measurement, reporting and reviewing of the data rests with the project proponent. PP proposed the following structure for data monitoring, collection, data archiving and calibration of equipment's for this project activity.
Plant engineer is responsible for the information flow and monitoring procedures in the name of the Project owner. These responsibilities include proper implementation of the monitoring plan, ensuring the information flow between the Project owner company and the VVB and management of the monitoring and verification procedures. The Electrical Engineer of Çataltepe WPP, responsible for monitoring issues on site.

The internal control procedures maintain the reliability and accuracy in the data transfer and calculations. The plant personal records the data on regular basis from both meters and compares the values for consistency. The responsible engineer performs regular checks of this procedure each month and controls the monthly data of main and second meters. If any difference occurs between the two meters, UEDAŞ has to be informed for further actions. Reliability and accuracy of monthly values is reached by comparative readings both from the project participant and UEDAŞ, where high accuracy is guaranteed and needed by the requirements of billing purposes.

[11] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6381&MevzuatTur=7&MevzuatTertip=5



*The Service Technician can be changed according to their work schedule. And Alize Enerji Elektrik Üretim A.Ş. has only responsible of wind farm electrical engineer, HV Switchgear Operators, Security personals. (7 people).

SECTION D. DATA AND PARAMETERS

D.1. Data and parameters fixed ex ante or at renewal of crediting period

I: 7.2.1 "Renewable energy share in the total final energy consumption"

Data/parameter	$EF_{CO2,i,y}$
Unit	tCO_2/MWh
Description	Combined margin CO2 emission factor for the project electricity system in year y
Source of data	Republic of Turkey Ministry of Energy in Emission Factor 2020
Value(s) applied	0.6488
Choice of data or Measurement methods and procedures	Calculate baseline emission
Purpose of data	Calculation of baseline emissions - to demonstrate contribution to SDG7- 7.2.1 Renewable energy share in the total final energy consumption

D.2 Data and parameters monitored

SDG 7: Affordable and Clean Energy

7.2.1 Renewable energy share in the total final energy consumption:

Data / Parameter	$EG_{Pj,\ grid,y}$
Unit	MWh

<table>
<tr><td>Description</td><td>Quantity of electricity generated and supplied by the project power plant to the grid in year y</td></tr>
<tr><td>Source of data</td><td>EPIAS Records (Same with Electricity Meter)
During this monitoring of net energy generation (SDG7) value calculation, PP has simply subtracted the SCADA values of unregistered 5 turbines' electricity generation from all 13 turbines gross generation data of EPIAS.</td></tr>
<tr><td>Value(s) applied</td><td>Net electricity generation between 20/01/2023-31/12/2023: 33,923.985 MWh
Net electricity generation between 01/01/2024-29/02/2024: 7,829.640 MWh
Total net electricity generation between 20/01/2023-29/02/2024: 41,753.626 MWh</td></tr>
<tr><td>Measurement methods and procedures</td><td>The net electricity generation supplied to the grid has been measured continuously by UEDAS meters (both main and spare) and recorded monthly.</td></tr>
<tr><td>Monitoring frequency</td><td>Continuous measurement and at least monthly recording. (Automatic meter reading system-OSOS)

CURRENT METERS
<table>
<tr><td></td><td>Electricity Meter(Primary)</td><td>Electricity Meter (Secondary)</td></tr>
<tr><td>Manufacturer</td><td>Landis</td><td>EMH</td></tr>
<tr><td>Model</td><td>Gyr</td><td>LZQJ-XC-P2FB</td></tr>
<tr><td>Serial number</td><td>51052836</td><td>6839363</td></tr>
<tr><td>Date of installation</td><td>06/10/2017</td><td>10/11/2017</td></tr>
<tr><td>Date of initial calibration</td><td>15/01/2015</td><td>07/06/2017</td></tr>
<tr><td>The accuracy of meters</td><td>0.2s active 0.5 re-active</td><td>0.2s active 0.5 re-active</td></tr>
</table>

Calibration frequency: According to the Article 9 of the relevant regulation[12]Measurement and Measuring Tools Inspection Regulation", Date: 24/07/1994, Official Gazette Number: 22000), periodical inspections of "gauges for electric, water, coal gas, natural gas and, current and voltage measuring transformers will be made once in 10 years". This is in line with the monitoring plan and national requirements. UEDAŞ is deciding when to carry out</td></tr>
</table>

[12] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6381&MevzuatTur=7&MevzuatTertip=5

	the next calibration. The Project owner has no control over or access to the measurement devices and is not entitled to perform any type of maintenance or calibration. **Date of initial calibration:** The calibration of the monitoring equipment was carried out according to the information provided in the PDD. The PDD mainly includes the following obligation for the calibration of the appropriate meters: "UEDAŞ is responsible for calibration and maintenance of the devices. If any difference occurs between primary and secondary device UEDAŞ performs necessary calibration"
QA/QC procedures	• Measurements are undertaken using energy meters. • Concerning metering system accuracy, project participant has to comply with relevant national legislation. The project must ensure that the metering devices are in line with the technical requirements which are set out by the Communiqué for Metering Devices to be used in the Electricity Market[13], which describes the minimum accuracy requirement the metering devices have to fulfil, which are categorized according to the installed capacity. • Maintenance and calibration of UEDAŞ meters have been carried out according to the System Usage Agreement. Since UEDAŞ meters are sealed by UEDAŞ the project proponent cannot intervene with the devices • The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. Data measured by meters have been crosschecked with the "OSOS" ("Monthly electricity meter readings" records
Purpose of data	Baseline/emission reductions calculations
Additional comment	-

[13] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6381&MevzuatTur=7&MevzuatTertip=5

SDG 8: Decent Work and Economic Growth

8.5.2. Unemployment rate, by sex, age and persons with disabilities

Data / Parameter	Number of employment generation
Unit	Number
Description	Number of people employed directly due to the project activity
Source of data	SGK Records
Value(s) applied	The project provides 7 employments
Measurement methods and procedures	The total number of persons working in the plant would be calculated based on the SGK Records
Monitoring frequency	Once for each monitoring period
QA/QC procedures	Social insurance registries of employees have been provided annually.
Purpose of data	-
Additional comment	PP has also monitored Safeguarding Principle 6.1 with this SDG parameter. -

Relevant SDG Indicator	8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status.
Data / Parameter	Health and Safety Training Records
Unit	Number of people per monitoring period
Description	Number of people trained on health and safety issues during per monitoring period
Source of data	Training Records or Certificates
Value(s) applied	The project has provided health and safety training to employees at each monitoring period
Measurement methods and procedures	The total number of Health and Safety training based on Training Records or Certificates
Monitoring frequency	Once for period each monitoring
QA/QC procedures	Training records or certificates have been provided

Purpose of data	Monitoring the health and safety trainings of employees to demonstrate contribution to SDG8-8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
Additional comment	PP has also monitored Safeguarding Principles 3 and 6.1 with this SDG parameter.

Name/Surname	Position	Training given by	Subject	Training Date	Record	Content
Rıdvan Avcı	High voltage Switch gear operators	Altınbaşak OSGB	General occupational health and safety	04-05/07/2023 17/08/2023	Certificate or Attendance List	Basic Training about General Occupational Health and Safety
Engin Şafak	High voltage Switch gear operators	Altınbaşak OSGB	General occupational health and safety	04-05/07/2023 17/08/2023	Certificate or Attendance List	Basic Training about General Occupational Health and Safety
Tuncay Coşgun	Security Personnel	Altınbaşak OSGB	General occupational health and safety	04-05/07/2023 17/08/2023	Certificate or Attendance List	Basic Training about General Occupational Health and Safety
Muhterem Balaban	Security Personnel	Altınbaşak OSGB	General occupational health and safety	04-05/07/2023 17/08/2023	Certificate or Attendance List	Basic Training about General Occupational Health and Safety

Fahri Coşgun	Security Personnel	Altınbaşak OSGB	General occupational health and safety	04-05/07/2023 17/08/2023	Certificate or Attendance List	Basic Training about General Occupational Health and Safety
Ömer Şener	Security Personnel	Altınbaşak OSGB	General occupational health and safety	04-05/07/2023 17/08/2023	Certificate or Attendance List	Basic Training about General Occupational Health and Safety

SDG 13 Climate Action

13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following

Data / Parameter	ER_y
Unit	tCO2/y
Description	Emission Reductions in year y (t CO2/yr) As per ACM0002 V 21.0, the baseline emissions (emission reductions) are calculated as the net electricity generated by the project activity, multiplied with the baseline emission factor for the project grid.
Source of data	Measured and calculated. (The emission reduction value the emission factor of the grid to which the project exports electricity (0.6488 tCO_2/MWh) and net electricity generated)
Value(s) applied	2023: 22,009 tCO2 2024: 5,079 tC02 TOTAL:27,088 tC02
Measurement methods and procedures	Please see B.6.2 for more detailed description of the monitoring plan in the PDD.
Monitoring frequency	Once for each monitoring period

QA/QC procedures	Republic of Turkey Ministry of Energy in Emission Factor 2020 [14]
Purpose of data	-
Additional comment	-

D.3. Comparison of monitored parameters with last monitoring period

Not applicable

D.4. Implementation of sampling plan

Not applicable

SECTION E. CALCULATION OF SDG IMPACTS

E.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

SDG 7: Affordable and Clean Energy

The baseline for the project is no project, thus leading to generation in the relevant grid which is dominated by fossil fuel. The clean energy generated by the project is calculated based on the amount of electricity generated by the project per annum. Net generation has been calculated as below.

Net Generation (MWh) = Electricity Supplied to the Grid (MWh)– Electricity Consumption from the Grid (MWh)

The net generation and internal consumption identified and approved by authorized EPIAS.

[14] https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf

SDG 8: Decent Work and Economic Growth

The project leads to employment opportunities which would not have been possible in the baseline scenario.

The project contributes to the following indicators 8.5.2 "Unemployment rate, by sex, age and persons with disabilities" and following target: "8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value" The target has been monitored by the number of full-time employees with the SGK records during the verification process. Because of the social conditions of the project area, employment of woman and persons with disabilities is not possible.

SDG13: Climate Action:

The project contributes to the following indicators 13.3.2 "Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target 13.3 "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning"

The project's contribution is done through training and awareness raising of local people and setting good example by investing to the climate friendly technology.

As developing the baseline and calculation of the emission reductions for the proposed project activity are calculated according to "Tool to calculate the emission factor of an electricity system" version 07.0.

The baseline emissions are calculated as follows:

$BE_y = EG_y * EF_{CO2,i,y}$

Where:

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

$EG_{facility,y}$ = Net quantity of electricity generated and delivered to the grid by power facility in year y (MWh)

$EF_{CO2,i,y}$ = CO2 emission factor of fuel type i in year y (t CO2/MWh)

Hence,

BE_y= 41,753.626 MWh * 0.6488 tCO_2/MWh

BEy= 27,088 tCO_2

Vintage	EG Net electricity supplied to the grid [MWh]	EF [tCO_2/MWh]	Baseline emission: BE = EG * EF [t CO_2-eq]
2023 (20/01/2023-31/12/2023)	33,923.985	0,6488	22,009
2024 (01/01/2024-29/02/2024)	7,829.640	0,6488	5,079
TOTAL (20/01/2023-29/02/2024)	41,753.626	0,6488	27,088

E.2. Calculation of project value or estimation of project situation of each SDG Impact

SDG 7: Affordable and Clean Energy

The baseline for the project is no project, thus leading to generation in the relevant grid which is dominated by fossil fuel. The clean energy generated by the project is calculated based on the amount of electricity generated by the project per annum.

Vintage	(A) Electricity supplied to the grid [MWh]	(B) Electricity consumption from the grid [MWh]	(C) = (A) - (B) EG Net electricity supplied to the grid [MWh]
2023 (20/01/2023-31/12/2023)	33,943.933	19,708	33,923.985
2024 (01/01/2024-29/02/2024)	7,833.608	4,230	7,829.640
TOTAL (20/01/2023-29/02/2024)	41,777.541	23,938	41,753.626

SDG 8: Decent Work and Economic Growth

The project leads to employment opportunities which would not have been possible in the baseline scenario. The project has been provided employment 7 people.
This helps to achieve SDG 8 with indicators 8.5.2 "Unemployment rate, by sex, age and persons with disabilities" and following target: 8.5 "By 2030, achieve full and productive employment and decent work for all women and men, including for young people and

persons with disabilities, and equal pay for work of equal value". "7 people has taken 1 health and safety training per year.

SDG 13 Climate Action

The project contributes to the following indicators 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target 13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

E.3. Calculation of leakage

Leakage emission is considered as "0" as suggested in ACM0002 Version 21

E.4. Calculation of net benefits or direct calculation for each SDG Impact

SDG	SDG Impact	Baseline estimate	Project estimate	Net benefit
7	Affordable and Clean Energy	0	41,753.626 MWh	41,753.626 MWh
8	Decent Work and Economic Growth	0	7 people employed	7 people employed
8	Decent Work and Economic Growth	0	All employed has taken Health and Safety Training	All employed has taken Health and Safety Training
13	Climate Action	27,088 tCO2	0	27,088 tCO2

E.5. Comparison of actual SDG Impacts with estimates in approved PDD

SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values achieved during this monitoring period
7	45,764.574MWh	41,753.626 MWh
8	7 people employed	7 people employed

8	All employed will be trained during the monitoring period	All employed has taken Health and Safety Training
13	29,691 tCO_2	27,088 tCO_2

E.5.1. Explanation of calculation of value estimated ex ante calculation of approved PDD for this monitoring period

The expected electricity generation value is 45,764.574 MWh and emission reduction are 29,691 tCO_2 according to registered 2nd crediting period PDD for this monitoring period. And PP has monitored 406 days (between 20/01/2023 and 29/02/2024) so PP has calculated 27,088 tCO2 emission reduction and 41,753.626 MWh electricity generation of 2nd monitoring period.

E.6. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

The monitoring period covers the approximately one year and one month operation.

The comparison shows that the actual emission reduction is 27,088 tCO_2 a lower (approximately -8.77%) than the expectation emission reduction 29,691 tCO_2 according to registered PDD. And the comparison shows that the actual net electricity generation is 41,753.626 MWh a lower (approximately -8.77%) than the expectation generation 45,764.574MWh according to the registered PDD of 2nd crediting period. The reason of this situation is low wind speed conditions.

SECTION F. SAFEGUARDS REPORTING

The project takes a precautionary approach regarding environmental challenges and is not complicit in practices contrary to the precautionary principle. There is no changes or improvements to proposed mitigation measures.

Relevant SDG Indicator/Safeguarding Principle	Safeguarding Principle 9.4: Release of pollutants
Data / Parameter	Water Quality and Quantity (Disposal of the waste water)
Unit	N/A
Description	During the construction and operation phases, domestic wastewater produced by workers collected in impermeable septic tanks. This wastewater are collected by vacuum trucks of the Metropolitan Municipality of Balıkesir and disposed according to Regulation on Waste Water Control.

Source of data	2 Records of transfer of waste water from power plant by vacuum truck (12/08/2023 and 05/02/2024)
Value(s) applied	N/A
Measurement methods and procedures	N/A
Monitoring frequency	Once for each monitoring period
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 9.4 (Release of pollutants)
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	Safeguarding Principle 9.5: Hazardous and Non-hazardous Waste
Data / Parameter	Waste oil disposal
Unit	N/A
Description	Waste oil produced have been collected in an oil-proof container and disposed via accredited abatement companies
Source of data	Official record by accredited abatement companies for regular transfer of waste oil from power plant
Value(s) applied	This official record has been provided to the VVB
Measurement methods and procedures	N/A
Monitoring frequency	Once for each monitoring period
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 9.5 (Hazardous and Non-hazardous Waste)
Additional comment	Regarding the waste oil used as lubricant in the turbines, national legal disposal requirements have been applied. Licensed private companies have collected the waste oil on site and dispose it properly. The selected Enercon turbines have minimal moving components and can operate for years without oil change. The turbines are also equipped with oil absorption systems which prevent any leaks, thereby minimizing the risk of spillage and soil contamination.

Relevant SDG Indicator/Safeguarding Principle	Principle 9.10 High Conservation Value Areas and Critical Habitats

Data / Parameter	Birds observation
Unit	N/A
Description	Ensuring that the project creates no disturbance to the regional habitat
Source of data	Regular site vetting for bird/bat nests and carcasses and recording on logbook by appointed personnel
Value(s) applied	There is no bird/bat nests and carcasses and recording on logbook by appointed personnel until now
Measurement methods and procedures	Observations around the project area has been done for monitoring birds and carcass
Monitoring frequency	Once for each monitoring period
QA/QC procedures	Records of regular observations have been kept
Purpose of data	To monitor compliance to Safeguarding Principle 9.10
Additional comment	-

Principles	Way of Monitoring-When / Mitigation Measures added to the Monitoring Plan	Chosen Data/ Parameter
Principle 1- Human Rights	Not Required	Not Required
Principle 2- Gender Equality	Not Required	Not Required
Principle 3-Community Health, Safety and Working Conditions	All the employees have been trained about health and safety issues during operation phase of the project. Monitoring the health and safety trainings of employees to demonstrate contribution to SDG8-8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant	Health and Safety Training Records/ Once for period each monitoring. It has assessed under the SDG8.

	workers, in particular women migrants, and those in precarious employment 8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	
Principle 4-Cultural Heritage, Indigenous Peoples, Displacement and Resettlement	Not Required	Not Required
Principle 4.1- Sites of Cultural and Historical Heritage	Not Required	Not Required
Principle 4.2 Forced Eviction and Displacement	Not Required	Not Required
Principle 4.2 Forced Eviction and Displacement	Not Required	Not Required
Principle 4.3 Land Tenure and Other Rights	Not Required	Not Required
Principle 5. Corruption	Not Required	Not Required
Principle 6.1 Labour Rights	All the employees have been trained about health and safety issues during operation phase of the project. Monitoring the health and safety trainings of employees to demonstrate contribution to SDG8-8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment 8.8.2	Health and Safety Training Records/ Once for period each monitoring. It has assessed under the SDG8.

	Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	
Principle 6.2 Negative Economic Consequences	Not Required	Not Required
Principle 7.1 Emissions	Not Required	Not Required
Principle 7.2 Energy Supply	Not Required	Not Required
Principle 8.1 Impact on Natural Water Patterns/Flows	Not Required	Not Required
Principle 8.2 Erosion and/or Water Body Instability	Not Required	Not Required
Principle 9.1 Landscape Modification and Soil	Not Required	Not Required
Principle 9.2 Vulnerability to Natural Disaster	Not Required	Not Required
Principle 9.3 Genetic Resources	Not Required	Not Required
Principle 9.4 Release of pollutants	During the operation phases, domestic wastewater produced by workers collected in impermeable septic tanks. This wastewater is collected by vacuum trucks of the Municipality of Balikesir and disposed according to Regulation on Wastewater Control.	Water Quality and Quantity (Disposal of the waste water) /Once for period each monitoring
Principle 9.5 Hazardous and Non-hazardous Waste	Waste oil produced have been collected in an oil-proof container and disposed via accredited abatement companies	Official record by accredited abatement companies for regular transfer of waste oil from power plant

Principle 9.6 Pesticides & Fertilisers	Not Required	Not Required
Principle 9.7 Harvesting of Forests	Not Required	Not Required
Principle 9.8 Food	Not Required	Not Required
Principle 9.9 Animal husbandry	Not Required	Not Required
Principle 9.10 High Conservation Value Areas and Critical Habitats	Observations around the project area have been done for monitoring birds and carcass	Birds Observation/Once for period each monitoring
Principle 9.11 Endangered Species	Not Required	Not Required

SECTION G. STAKEHOLDER INPUTS AND LEGAL DISPUTES

G.1. List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

This is the second monitoring period and there is no input received via the Continuous Input and Grievance Mechanism during the approximately thirteen years. The Continuous Input and Grievance Mechanism has been located at the headman of Kocadag village. The PP has meet with the stakeholders and talk with them and there is no negative feedback or comment on the grievance mechanism notebook. Furthermore, the stakeholders reach the PP whenever they want to talk related with the project or request about everything. The stakeholders can reach to the project owner whenever they wanted via phone, face to face or email.

G.2. Report on any stakeholder mitigations that were agreed to be monitored.

They were agreed no SDG monitoring parameter to be monitored when the PP asked the stakeholder during the 2nd crediting renewal period which has approved on 09/08/2023 by GS. And there is no changes during this 2nd monitoring period of operation project.

G.3. Provide details of any legal contest that has arisen with the project during the monitoring period

There is no legal contest that has arisen with the project during the monitoring period.

Revision History

Version	Date	Remarks
1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Section for POA monitoring Forward action request section Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on safeguard reporting Clarity on design changes Leakage section added for VER/CER projects Addition of Comparison of monitored parameters with last monitoring period Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption