

MONITORING REPORT TEMPLATE^a

ULU WPP – MONITORING REPORT OF 1ST MONITORING PERIOD

Document prepared by Sila Duran – Sekans Enerji Limited Sirketi

V05 – 09/01/2025

Monitoring Report Template (Version 1.1) ^b	
Name of project	Ulu WPP
BCR Project ID	BCR-TR-152-1-002
Registration date of the project activity	20/05/2024
Project holder	Sekans Enerji Limited ŞTİ. Project Holder / Representative / Consultant
Contact	Sekans Enerji Limited ŞTİ. Project Representative / Consultant Mrs. Sila Duran sila@sekansdanismanlik.com Emniyet Evleri District, Eski Büyükdere Street, No: 1/1 Apartman No: 1B04 Kağıthane/İstanbul, Türkiye

^a This form is for the monitoring report of projects using the BCR Program.

^b The instructions in this form are a guide. Do not represent an exhaustive list of the information the preparer shall provide under each section of the template.

Monitoring Report Template (Version 1.1) ^b	
Version number of the Project Document applicable to this monitoring report	07 (18/12/2024)
Applied methodology	CDM Approved ACM0002 Grid-connected electricity generation from renewable sources, version 22.0
Project location (Country, Region, City)	İnegöl and Keleş districts of Bursa Province, in the Southern Marmara Region of Türkiye
Project starting date	19/12/2020
Quantification period of GHG reductions/removals	19/12/2020 – 18/12/2027
Monitoring period number	1st
Monitoring period	19/12/2020 – 30/04/2024
Amount of emission reductions or removals achieved by the project in this monitoring period	434,131 tCO ₂ e
Contribution to Sustainable Development Goals	SDG7: Ensure access to affordable, reliable, sustainable and modern energy for all. The project activity contributed SDG7 by generating 684,213.98 MWh of renewable energy during the monitoring period. Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix. The project contributed the following indicator “7.2.1: Renewable energy share in the total final energy consumption”

Monitoring Report Template (Version 1.1) ^b	
	SDG8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. The project activity contributed SDG8 by employing 22 people long term and provided OHS trainings on yearly basis. Target 8.5: By 2030, achieve full and productive employment and decent work for all women and men. The project contributed the following indicator “8.5.2: Unemployment rate, by sex, age and persons with disabilities.” Target 8.8: Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment. The project contributed the following indicator “8.8.1: Fatal and non-fatal occupational injuries per 100,000 workers, by sex and migrant status.” SDG13: Take urgent action to combat climate change and its impacts. The project activity contributed SDG13 by avoiding 434,131 tCO₂e during the monitoring period. Target 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, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions”
Special category, related to co-benefits	Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix. The project contributed the following indicator “7.2.1: Renewable energy share in the total final energy consumption”

Monitoring Report Template (Version 1.1) ^b	
	Target 8.5: By 2030, achieve full and productive employment and decent work for all women and men. The project contributed the following indicator “8.5.2: Unemployment rate, by sex, age and persons with disabilities.” Target 8.8: Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment. The project contributed the following indicator “8.8.1: Fatal and non-fatal occupational injuries per 100,000 workers, by sex and migrant status.” Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. The project contributed the following indicator “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”

Table of contents

1	General description of project	7
1.1	Sectoral scope and project type	10
1.2	Project start date	11
1.3	Project quantification period	11
1.4	Project location and project boundaries	11
1.5	Summary Description of the Implementation Status of the Project.....	13
2	Title, reference and version of the baseline and monitoring methodology applied to the project	20
3	Registry or participation under other GHG Programs/Registries	20
4	Contribution to Sustainable Development Goals (SGD)	21
5	Compliance with Applicable Legislation	22
6	Climate change adaptation	22
7	Carbon ownership and rights	23
8	Environmental Aspects	24
9	Socioeconomic Aspects	25
10	Stakeholders' Consultation	26
10.1	Summary of comments received	27
10.2	Consideration of comments received	27
11	REDD+ Safeguards	28
12	Special categories, related to co-benefits	28

13	Grouped Projects	28
14	Implementation of the project	28
14.1	Implementation status of the project	28
14.2	Revision of monitoring plan	29
14.3	Request for deviation applied to this monitoring period	29
14.4	Notification or request of approval of changes	29
15	Monitoring system	29
15.1	Description of the monitoring plan	29
15.2	Data and parameters to quantify the reduction of emissions	33
15.2.1	Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors	34
15.2.2	Data and parameters monitored	35
16	Quantification of GHG emission reduction / removals	43
16.1	Baseline emissions	43
16.2	Project emissions/removals	45
16.3	Leakages	45
16.4	Net GHG Emission Reductions / Removals	45
16.5	Comparison of actual emission reductions with estimates in the project document ...	46
16.6	Remarks on difference from estimated value in the registered project document	48

1 General description of project

The Ulu WPP (hereafter referred as “Project”) is a new built wind power plant, located in Bursa Province, Türkiye owned by Ulu Yenilenebilir Enerji Üretim A.Ş. The generation license of the project was issued by the Energy Market Regulatory Authority (EMRA) on 22/12/2011 for 49 years. The project has an installed capacity of 120.4 MWm/120 MWe and the annual generation is estimated to be 420,000 MWh.

As the electricity generated by the project displaces the electricity generated by Turkish National Grid, the baseline boundary is defined as the Turkish National Grid. This includes the project site and all power plants connected physically to the national grid and excludes the off-grid power plants.

The baseline scenario has been defined as the generation of the same amount of electricity by the national grid which is dominated by thermal power plants. The main emission source of electricity generation in fossil fuel fired power plants that are connected to Turkish National Grid is CO₂ as in baseline scenario. Compared to that baseline scenario, the project activity has positive influences on sustainable development in Türkiye.

The purpose of the Project is to produce renewable electricity using wind as the power source and to contribute to Türkiye’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 by fossil fired power plants. The annual emission reduction estimated by the project is 266,490 tonnes of CO₂. During the crediting period, 1,865,429 tonnes of CO₂ are expected to be reduced.

Project has been developed to have 2 Enercon E-138 EP3 turbines, each having a capacity of 3.5 MWm/3.5 MWe, 27 Enercon E-138 EP3 E2 turbines; 26 of them having a capacity of 4.2 MWm/4.2 MWe and 1 of them having a capacity of 4.2 MWm/3.8 MWe. There are 29 turbines in total in the project activity. The electricity is transmitted to substation Orhaneli Transformer Station – İnegöl Transformer Station via a 0.2 km, 154 kV transmission line.

The Project started its commercial operation through the ministry acceptance of 2 turbines with the total installed capacity of 7.0 MW_m/7.0 MW_e on 19/12/2020¹. Commissioning dates and powers of the turbines have been shown in the table below:

Turbine No.	Type of the Turbine	Power	Commissioning Date
T ₁	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	02/12/2021
T ₂	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	12/11/2021
T ₃	Enercon E-138 EP3	3.5 MW _m / 3.5 MW _e	19/12/2020
T ₄	Enercon E-138 EP3	3.5 MW _m / 3.5 MW _e	19/12/2020
T ₅	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	12/11/2021
T ₆	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	02/12/2021
T ₇	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	02/12/2021
T ₈	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	25/12/2021
T ₉	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	14/01/2022
T ₁₀	Enercon E-138 EP3 E ₂	4.2 MW _m / 4.2 MW _e	25/12/2021

¹ Ministry Acceptance Protocols

T11	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	14/01/2022
T12	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	25/08/2022
T13	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	22/09/2022
T14	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	25/08/2022
T15	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	13/10/2022
T16	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	13/10/2022
T17	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	30/06/2022
T18	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	30/06/2022
T19	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	28/07/2022
T20	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	28/07/2022
T21	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	28/07/2022
T22	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	22/09/2022
T23	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	24/11/2022

T24	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	24/11/2022
T25	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	01/12/2022
T26	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	01/12/2022
T27	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	03/11/2022
T28	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	03/11/2022
T29	Enercon E-138 EP3 E2	4.2 MW _m / 3.8 MW _e	24/11/2022

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

- Displacing the electricity generated by fossil fuel fired power plants by utilizing the renewable resources so as 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

In the monitoring period between 19/12/2020 – 30/04/2024, the project generated 684,213.98 MWh of electricity and avoided 434,131 tCO₂e of emissions.

1.1 Sectoral scope and project type

01 Energy industries (renewable - / non-renewable sources)

Stand-alone Wind Power Plant project

1.2 Project start date

Start date of the Project Activity is 19/12/2020, which is the earliest commissioning date of the wind turbines T3-T4.

1.3 Project quantification period

19/12/2020 – 18/12/2027 (10 years)

1.4 Project location and project boundaries

The project activity is located within the borders of İnegöl and Keleş Districts of Bursa Province, Türkiye. Coordinates of turbines in DD format is shown in the table below.

Turbine No.	Latitude	Longitude
T1	39.9097° N	29.3576° E
T2	39.9133° N	29.3675° E
T3	39.9142° N	29.3726° E
T4	39.9150° N	29.3774° E
T5	39.9115° N	29.3789° E
T6	39.9043° N	29.3756° E
T7	39.9093° N	29.3828° E
T8	39.9070° N	29.3857° E
T9	39.9053° N	29.3890° E

T10	39.9106° N	29.3955° E
T11	39.9132° N	29.4035° E
T12	39.9157° N	29.4258° E
T13	39.9186° N	29.4330° E
T14	39.9160° N	29.4364° E
T15	39.9125° N	29.4394° E
T16	39.9111° N	29.4432° E
T17	39.9103° N	29.4088° E
T18	39.9094° N	29.4127° E
T19	39.9076° N	29.4160° E
T20	39.9031° N	29.4170° E
T21	39.9014° N	29.4202° E
T22	39.8982° N	29.4227° E
T23	39.8942° N	29.4242° E
T24	39.8902° N	29.4265° E
T25	39.8848° N	29.4285° E
T26	39.8820° N	29.4315° E

T27	39.8913° N	29.3958° E
T28	39.8907° N	29.4015° E
T29	39.8827° N	29.4075° E



Figure 1. Location of Turbines of Ulu WPP

1.5 Summary Description of the Implementation Status of the Project

The project has an installed capacity of 120.4 MW_m / 120 MW_e and the annual generation is estimated to be 420,000 MWh.

Project has been developed to have 2 Enercon E-138 EP3 turbines, each having a capacity of 3.5 MW_m/3.5 MW_e, 27 Enercon E-138 EP3 E2 turbines; 26 of them having a capacity of 4.2 MW_m/4.2 MW_e and 1 of them having a capacity of 4.2 MW_m/3.8 MW_e. There are 29 turbines in total in the project activity. The electricity is transmitted to substation Orhaneli Transformer Station – İnegöl Transformer Station via a 0.2 km, 154 kV transmission line.

The Project started its commercial operation through the ministry acceptance of 2 turbines with the total installed capacity of 7.0 MWm/7.0 MWe on 19/12/2020. All turbines' commissioning dates are shown in Section 1.

Table 1. Technical details of the turbines

Parameter	Values		
Type No	Type 1 turbine	Type 2 turbine	Type 3 turbine
Brand	Enercon	Enercon	Enercon
Model	E-138 EP3	E-138 EP3 E2	E-138 EP3 E2
Number of units	2 (T3 & T4)	26 (All other turbines)	1 (T29)
Rated power of a unit	3.5 MWm/3.5 MWe	4.2 MWm/4.2 MWe	4.2 MWm/3.8 MWe
Rotor diameter	138.25 m	138.25 m	138.25 m
Number of blades	3	3	3
Hub Height	111 m	111 m	111 m
Average Lifetime	25 years ²		

The measurements will be performed by two measuring devices, which are the main (primary) measuring device and the backup (secondary) measuring device. The measuring frequency of both devices is continuous. The meters are placed at the

² Default value of on-shore wind turbines according to Tool 10 V1.0

Powerhouse. Technical specifications and serial numbers of the meter are presented in table below:

Table 2. Technical details of monitoring equipment

Parameter	Main Meter	Spare Meter
Brand	EMH	EMH
Type	LZQJ-XC-P2FB-BB 1A	LZQJ-XC-P2FB-BB 1A
Accuracy	0.2s	0.2s
Location	At powerhouse	At powerhouse
Serial number	9276687	9276688
Calibration frequency	Every 10 year	Every 10 year
Calibration (First Index Protocol) Date	28/10/2020	28/10/2020
Latest Meter Test	23/08/2022	23/08/2022
Calibration Status	Calibrated	Calibrated

Milestones of the project can be found in below table:

Table 3. Milestones of the project

Milestone	Date
License Date	22/12/2011
EIA Approval Date	24/03/2020

Commissioning Date	19/12/2020
Registration Date	20/05/2024
Quantification Period	19/12/2020 to 18/12/2027
Monitoring Period	19/12/2020 to 30/04/2024

Table 4. Provisional Acceptance Dates

Turbine No.	Type of the Turbine	Power	Commissioning Date
T ₁	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	02/12/2021
T ₂	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	12/11/2021
T ₃	Enercon E-138 EP ₃	3.5 MW _m / 3.5 MW _e	19/12/2020
T ₄	Enercon E-138 EP ₃	3.5 MW _m / 3.5 MW _e	19/12/2020
T ₅	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	12/11/2021
T ₆	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	02/12/2021
T ₇	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	02/12/2021
T ₈	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	25/12/2021
T ₉	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	14/01/2022

T ₁₀	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	25/12/2021
T ₁₁	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	14/01/2022
T ₁₂	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	25/08/2022
T ₁₃	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	22/09/2022
T ₁₄	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	25/08/2022
T ₁₅	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	13/10/2022
T ₁₆	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	13/10/2022
T ₁₇	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	30/06/2022
T ₁₈	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	30/06/2022
T ₁₉	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	28/07/2022
T ₂₀	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	28/07/2022
T ₂₁	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	28/07/2022
T ₂₂	Enercon E-138 EP ₃ E ₂	4.2 MW _m / 4.2 MW _e	22/09/2022

T23	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	24/11/2022
T24	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	24/11/2022
T25	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	01/12/2022
T26	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	01/12/2022
T27	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	03/11/2022
T28	Enercon E-138 EP3 E2	4.2 MW _m / 4.2 MW _e	03/11/2022
T29	Enercon E-138 EP3 E2	4.2 MW _m / 3.8 MW _e	24/11/2022

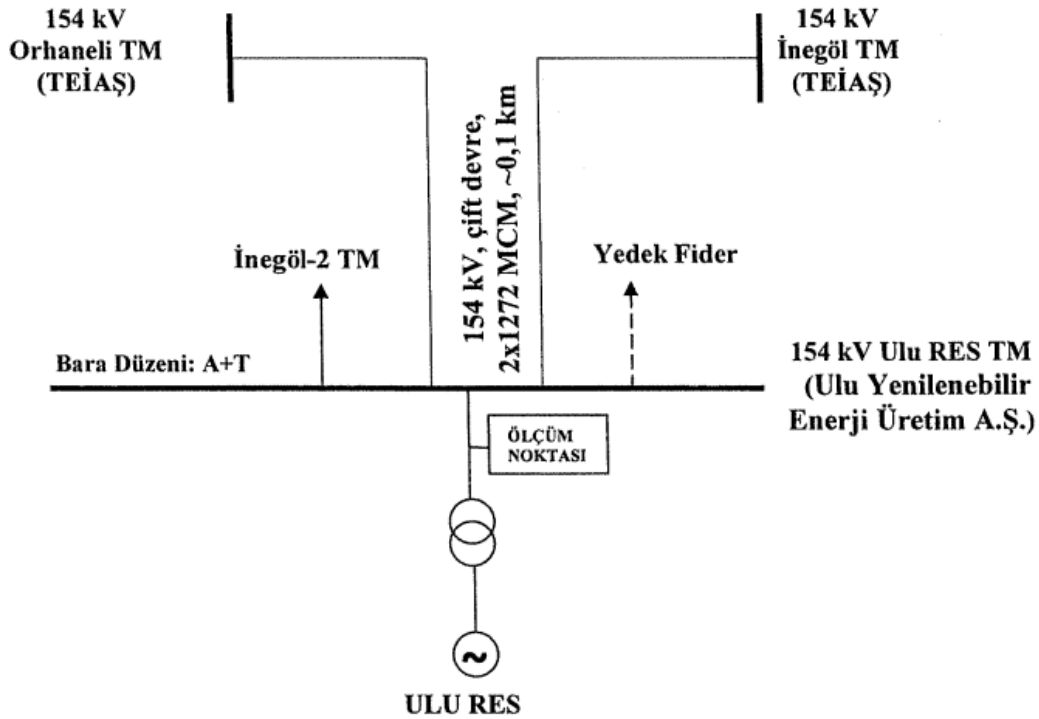


Figure 2. Single Line Diagram - Connection Points³

The baseline scenario has been defined as the generation of the same amount of electricity by the national grid which is dominated by thermal power plants. The main emission source of electricity generation in fossil fuel fired power plants that are connected to Turkish National Grid is CO₂ as in baseline scenario. Compared to that baseline scenario, the project activity has positive influences on sustainable development in Türkiye.

The project is a greenfield power plant; the project activity is the installation of a new grid-connected renewable power plant; no renewable power plant was implemented/operated before the implementation of the project activity. The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system.

³ Connection Agreement

The project activity utilizes long-term potential of wind energy, efficient technology to reduce GHG emissions as well as to diversify and increase security of the local energy supply and contributing to a sustainable development. The project contributes to technology and know-how transfer from Germany since the electricity generation technologies in Türkiye are currently dominated by fossil fuel power plants.

The project generated 684,213.98 MWh net electricity and reduced 434,131 tCO₂e amount of emission during the monitoring period of 19/12/2020 – 30/04/2024.

2 Title, reference and version of the baseline and monitoring methodology applied to the project

The United Nations approved consolidated baseline methodology applicable to this project is ACM0002: Grid-connected electricity generation from renewable sources --- Version 22.0⁴

ACM0002 refers to the following tools:

TOOL 01: Tool for the demonstration and assessment of additionality, version 7.0.0⁵

TOOL 07: Tool to calculate the emission factor for an electricity system, version 07.0⁶

TOOL 10: Tool to determine the remaining lifetime of equipment, version 01⁷

3 Registry or participation under other GHG Programs/Registries

The project had a submission for Global Carbon Council on 15 December 2023 with project submission number of S0114⁸, however, it was decided to abandon this submission and move on to registration for BCR. Since there is no de-registration procedure in GCC yet, the submission has not been officially canceled, but there will be no registration request within this submission and this submission will be officially canceled when GCC's de-registration procedure is published.

⁴

<https://cdm.unfccc.int/UserManagement/FileStorage/R0IJ1X9LQ7W2GOYHSMBFCPE3VKZ685>

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-07-v7.0.pdf>

⁷ <https://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-10-v1.pdf>

⁸ <https://projects.globalcarboncouncil.com/project/1679>

Sekans Enerji Limited ŞTİ. hereby confirms that Sekans Enerji Limited ŞTİ. will not seek to issue any GHG instruments under the Global Carbon Council for the crediting period for which we will request VCC through the BioCarbon Registry

4 Contribution to Sustainable Development Goals (SGD)

The impact of the project activity on environmental and social aspects is shown below based on BioCarbon's SDG Tool v1.0.

The project is expected to contribute SDG 7, 8 and 13.

- **Goal 7 Affordable and Clean Energy**

The project produces electricity from renewable energy sources using wind as the power source and to contribute to Turkey's growing electricity demand through a sustainable and low carbon technology. The project displaces the same amount of electricity generated by the grid dominated by fossil fired power plants.

During the monitoring period, 684,213.98 MWh of net electricity generated by the project activity.

The project contributes to the following target 7.2. and following indicator 7.2.1.

- **Goal 8 Decent Work and Economic Growth**

During construction and operational period, the project has created employment opportunities for the local community. The project contributes to the economic development of the region by providing sustainable energy resources.

The positions at the wind projects require skilled workers, which will be achieved by adequate training. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe work environments.

The project activity provided long-term employment opportunities to 22 people.

The project contributes to the following targets 8.5.; 8.8.and following indicators 8.5.2.; 8.8.1.

- **Goal 13 Climate Action**

The project contributes to improve the environmental situation in the region and in the country as avoiding fossil fuel-based electricity will enhance the air quality and help to reduce the adverse effects on the climate. Through renewable technologies and wind-based electricity sustainable and climate friendly development is promoted. While emission reduction is realized, technology transfer is also realized as benefitting from wind energy.

During the monitoring period, 434,131 tCO₂e of emissions reduced by the project activity.

The project contributes to the following target 13.3. and following indicator 13.3.2.

5 Compliance with Applicable Legislation

The project is not enforced by any laws or regulations. The project complies with the laws and regulations are listed below:

- Electricity Market Law (Enacted on 30/03/2013)⁹
- Law on Utilization of Renewable Energy Resources for the Purpose of Generation Electricity (Enacted on 18/05/2005)¹⁰
- Energy Efficiency Law (Enacted on 02/05/2007)¹¹
- Environment Law (Enacted on 25/11/2014)¹²
- Forest Law (Enacted on 08/09/1956)¹³

6 Climate change adaptation

Ulu WPP contributes to climate change adaptation by generating electricity from wind energy, which is a renewable, clean and sustainable source. The project activity reduces

⁹ <https://www.mevzuat.gov.tr/mevzuatmetin/1.5.6446.pdf>

¹⁰ <https://www.mevzuat.gov.tr/mevzuatmetin/1.5.5346.pdf>

¹¹ <https://www.mevzuat.gov.tr/mevzuatmetin/1.5.5627.pdf>

¹² <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2872&MevzuatTur=1&MevzuatTertip=5>

¹³ <https://www.mevzuat.gov.tr/mevzuatmetin/1.3.6831.pdf>

the country's reliance on fossil fuels in electricity supply in this manner. The evidence on this issue is as follows:

1. The project is a wind power plant. Evidence that the plant is a wind power plant can be shown in the "Energy Source-Wind" statement on page 2 of the shared generation license.
2. Evidence that wind power plants are renewable energy plants can be found in ACM0002 v22.0 paragraph 6(a).
3. Once it is proven that the project is a renewable wind power plant, it will also be proven that the energy obtained from the power plant's generation is clean energy and that no fossil fuels are used. Reducing the use of fossil fuels for climate change adaptation and producing electricity from clean energy is an important step. Shared EPIAŞ records can be shown as evidence of the plant's generation data.

7 Carbon ownership and rights

Project Holder

Individual or organization	Sekans Enerji Limited ŞTİ.
Contact person	Sıla Duran
Job position	Project Holder / Representative / Consultant
Address	Emniyet Evleri District, Eski Büyükdere Street, No: 1/1 Aparment No: 1B04 Kağıthane/İstanbul, Türkiye
Phone number	-
Email	sila@sekansdanismanlik.com

Other Project Participants (Legal Owner)

Individual or organization	Ulu Yenilenebilir Enerji Üretim Anonim Şirketi
Contact person	Zeynep Yarga
Job position	Authorized Signatory
Address	Ankara Street No:222, Gaziosmanpaşa District Gölbaşı/Ankara, Türkiye

Phone number	+90 312 438 11 50
--------------	-------------------

Email	zyarga@guris.com.tr
-------	---------------------

8 Environmental Aspects

BCR's "Sustainable Development Safeguards (SDS) Tool, v1.0" is applied to show the project's compliance with the environmental aspects.

Environment

1. Land use: Resource Efficiency and Pollution Prevention and Management

- During the construction phase of the project, negative effects on the local people regarding the land dispute were prevented by complying with expropriation laws and by keeping in constant communication with the citizens affected by the project site.
- Domestic wastes are properly stored and disposed of in accordance with the Waste Management Regulation.
- Hazardous wastes (Waste oil / Packaging containing hazardous solids such as asbestos / absorbents, filters, cleaning materials, protective clothing contaminated with hazardous substances / mercury-containing waste such as fluorescents, etc.) will be handled appropriately in closed containers and transported by licensed transporters to the licensed processing and disposal facilities.

Wastewater disposal records of 2022-2023 and waste disposal records of 2022 has been shared with the verifier.

2. Water

Due to the nature of the project activity, it does not cause any harm to the surrounding water resources. Wastewater produced by employees during operation is collected in an impermeable septic tank and later they are periodically transferred to wastewater treatment plant.

3. Biodiversity and Ecosystems

Regarding impact on bird and bats carcasses and nests, an Ornithology Report was prepared on 2022, and it's been reported that no negative impact was considered.

4. Climate Change

Ulu WPP contributes to climate change adaptation by generating electricity from wind energy, which is a renewable, clean and sustainable source. The project activity reduces the country's reliance on fossil fuels in electricity supply in this manner.

9 Socioeconomic Aspects

BCR's "Sustainable Development Safeguards (SDS) Tool, v1.0" is applied to show the project's compliance with the socioeconomic aspects.

1. Human Rights

a. Labor and Working Conditions

Employee rights in Türkiye are protected by the Labor Law. According to the Labor Law:

- Forced labor and child labor is prohibited.
- The employer is responsible for the safety of employees and the workplace. In this context, employees of power plants, which are classified as very dangerous workplaces, are required to receive OHS training every year.
- Every employer is obliged to give its employees the rights written in the Labor Law.

b. Gender Equality and Women Empowerment

Project Holder does not discriminate against gender during recruitment. There is no gender discrimination in relations with the local people.

c. Land Acquisition, Restrictions on Land Use, Displacement, and Involuntary Resettlement

During the construction phase of the project, negative effects on the local people regarding the land dispute were prevented by complying with expropriation laws and by keeping in constant communication with the citizens affected by the project site. No local people were forcibly displaced due to the project activity.

d. Indigenous Peoples and Cultural Heritage

There was no damage to the cultural heritage and no harm to indigenous people due to the project activity.

e. Community Health and Safety

Hazardous and domestic wastes generated by the project activity, which may harm the environment and the health of the local people if not disposed of properly, are disposed of properly in accordance with the Waste Management Regulation, thus preventing any harm to the health of the local people. Waste disposal records of 2022 has been shared with the verifier.

Areas that would threaten the safety of local people are surrounded by fences. There are warning signs in areas where there may be a safety hazard.

2. Corruption

There is no misuse of funds, fraudulent reporting, conflict of Interest, lack of transparency, weak regulatory oversight, lack of accountability mechanisms, environmental permitting corruption and subcontractor corruption in project activity.

3. Economic Impact

During construction and operational period, the project has created employment opportunities for the local community. The project contributes the economic development of the region by providing sustainable energy resources.

The positions at the wind projects require skilled workers, which will be achieved by adequate training. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe work environments.

10 Stakeholders' Consultation

The promotion of the Ulu WPP project was made on 21/11/2019 with the participation of the local people and the representatives of the relevant institution in Sorgun County, Keles Town of Bursa Province, Türkiye.

Additionally, the participants from the below institutions were participated.

- Ministry Of Environment and Urbanization
- Ministry Of Agriculture and Forestry
- Provincial Directorate of Environment and Forestry

65 people attended the meeting.

The project was introduced to the local people and the questions of the participants were answered.

The announcement letters were put up on the public places and presented in the mukhtar's office. Additionally, the meeting announcement was shared in 2 newspapers,

one of which was local, on 7 November 2019. The meetings are comprised of presentation that includes the Project information and a record of comments. To ensure communication of the meeting, project brochures were shared with the heads.

Agenda:

- Introduction of Project Representatives
- Introduction of the project activity
- Assessment of Impact of Project on Sustainability
- Q&A Session and Feedbacks

Local stakeholders were also informed on environment and social impacts on SDG elements of the project during the meetings.

It is important for the Project Owner to monitor the on-going stakeholder engagement process to ensure that consultation and disclosure efforts are effective, and stakeholders delivering grievances have been meaningfully consulted throughout the process. There is also a grievance book site area where local people can write their complaints. Therefore, the Stakeholder Engagement Plan is executed by the Project Owner.

Local stakeholders were also informed on environment and social impacts on SDG elements of the project during the meetings.

10.1 Summary of comments received

Stakeholders considered clear signs of climate change in the region in recent years. The common outcome of the stakeholder consultation was positive, and stakeholders were in favor of the Project. Local people were employed during construction and are being employed during operation. Contribution to the local economy and leading to improvement in living standards were also supported by the stakeholders. There was no negative comment from the participants during the meeting.

10.2 Consideration of comments received

The contact information of the plant responsible was shared with the stakeholders and it was stated that the project owner and local community would always be in touch. The contact information of the plant responsible has been announced to the stakeholders, in case of any input, local stakeholder can reach and express their needs or complaints. There is also a grievance book site area where local people can write their complaints. The effectiveness of the grievance mechanism will be reviewed, the plant responsible

staff and Mukhtars will be in touch and additional measures will be taken based on the review process, if required

11 REDD+ Safeguards

N/A

12 Special categories, related to co-benefits

N/A

13 Grouped Projects

N/A

14 Implementation of the project

14.1 Implementation status of the project

The project activity includes the operation of a wind power plant with a power of 120.40 MWm/120 MWe. Project has been developed to have 2 Enercon E-138 EP3 turbines, each having a capacity of 3.5 MWm/3.5 MWe, 27 Enercon E-138 EP3 E2 turbines; 26 of them having a capacity of 4.2 MWm/4.2 MWe and 1 of them having a capacity of 4.2 MWm/3.8 MWe. There are 29 turbines in total in the project activity. The project generated 684,213.98 MWh net electricity and reduced 434,131 tCO₂e amount of emission during the monitoring period of 19/12/2020 – 30/04/2024.

The Project has started its commercial operation through the ministry acceptance of 2 turbines with total installed capacity of 7.0 MWm/7.0 MWe on 19/12/2020. According to Tool 10, the average lifespan of wind turbines is 25 years.

All turbines are three-bladed, variable-speed wind turbine generator with a rotor diameter of 138.25 m. The hub height of the turbines is 111 m. The electricity is transmitted to substation Orhaneli Transformer Station – İnegöl Transformer Station via a 0.2 km, 154 kV transmission line. The measurement was made at the substation before the electricity was supplied to the grid.

Ulu Yenilenebilir Enerji Üretim Anonim Şirketi is the legal owner of the Project¹⁴.

14.2 Revision of monitoring plan

N/A

14.3 Request for deviation applied to this monitoring period

N/A

14.4 Notification or request of approval of changes

N/A

15 Monitoring system

15.1 Description of the monitoring plan

The objective of the monitoring plan is to ensure the complete, consistent, clear, and accurate monitoring and calculation of the emission reductions during the whole crediting period. The Project Owner is responsible for the implementation of the monitoring plan.

The Project Owner is responsible for the overall management of the monitoring procedures including recording, data collection, calculating emission reductions and project emissions.

All monitoring procedures and requirements of the proposed project activity are in accordance with the methodology ACM0002 “Grid-connected electricity generation from renewable sources” Version 22.0.

Parameters

¹⁴ Generation License

Data and Parameters fixed ex-ante:

- EFgrid, OM, y
- EFgrid, BM, y
- EFgrid, CM, y

Data and Parameters to be monitored:

- EGpj,y
- ERy
- Number of employment
- Quality of employment

Metering

The main source for electricity generation metering will be the TEIAS meters installed and sealed by TEIAS. Since the TEIAS meters are sealed by TEIAS and are also the basis of invoicing, high accuracy and reliability is ensured. Also, the TEIAS meters have the ability to measure both the amount of electricity exported to the grid as well as the amount of electricity imported by the project activity, which provides an accurate and reliable measurement of the net electricity.

The measurements will be performed by two measuring devices, which are the main (primary) measuring device and the backup (secondary) measuring device. The brand of power meters is EMH (LZQJ-XC). The measuring frequency of all devices is continuous. Detailed information of the meters are given below:

Parameter	Main Meter	Spare Meter
Brand	EMH	EMH
Type	LZQJ-XC-P2FB-BB 1A	LZQJ-XC-P2FB-BB 1A
Accuracy	0.2s	0.2s
Location	At powerhouse	At powerhouse
Serial number	9276687	9276688

Calibration frequency	Every 10 year	Every 10 year
Calibration (First Index Protocol) Date	28/10/2020	28/10/2020
Latest Test Date	23/08/2022	23/08/2022
Calibration Status	Calibrated	Calibrated

The Project Owner enters the expected electricity generation on daily basis to the website of EPIAS which is the financial settlement center of TEIAS. The website of EPIAS is accessible to project owner with their unique user ID and password. The difference between the expected and generated electricity (imbalance) is costed the project owner at the end of each month. The electricity generation data is reported monthly. EPIAS records are used as the source of net generated electricity value and meter reading forms or OSF forms issued by TEIAS will be used for the crosscheck.

The calibration will be implemented in accordance with the related standard procedures (IEC-EN 62053-22 and 62053-23) by either Turkish Electricity Transmission Corporation (TEIAS) or the provider company in the name of TEIAS. The meters are calibrated every ten years. Additionally, the meters are tested every two years.

Meter readings

According to the methodology applied, the electricity supplied to the national grid by the project and the electricity consumed by the project activity shall be monitored. The net electricity is the difference between the electricity supplied and consumed by the project and shall be taken into account for emission reduction calculations.

The website of EPIAŞ (<https://cas.epias.com.tr/cas/login>) is accessible to Project owner with their unique user ID and password. Once accessed, the Project owner is able to call electricity generation and consumption reports of their own projects. The same reports are used by the Project owner for invoicing TEİAŞ. The electricity generation data is reported monthly basis.

Once a month, the project participant will perform data readings. The monthly results will be recorded by the project participant both manually and electronically.

Data storage

Data will be stored electronically, during the crediting period and at least two years after the last issuance of credits for the project activity in the concerning crediting period. The Project Participant will be responsible for storage of data received from the measuring devices. The site manager is responsible for data aggregation.

Responsibilities for monitoring

The Project Owner is responsible for the operation and maintenance of the project activity and the installed equipment. The project owner is also responsible for the administration of the data, setting up a VER team who is responsible for monitoring all data required to estimate emission reductions. Emission reductions are calculated by the VER consultant, Sekans Enerji.

Quality assurance and quality control

The main source of measurement is the TEIAS meters, which are sealed by TEIAS and since it is subject to monthly invoicing high reliability and accuracy is secured. In accordance with the requirements of TEIAS, there are two meters installed at the site where the one of them is called the main meter and the other one is as secondary meter. TEIAS is the main responsible for calibration and maintenance of the devices. TEIAS performs the necessary maintenance and calibration. Since the electricity generation data is used for the billing and accounting between TEIAS and the project participant, the data is of high quality.

The primary source is the EPIAS records. Net electricity exported is crosschecked with Meter Reading Forms. EPIAS is the financial settlement center of TEIAS. The Meter Reading Forms are filled in by the project owner and approved by the governmental officers. Additionally, remote reading by the governmental body is also available. The website of EPIAS is accessible to Project Owner with their unique user ID and password. Once accessed, the Project Owner can call electricity generation for invoicing TEIAS. The electricity generation data is reported monthly.

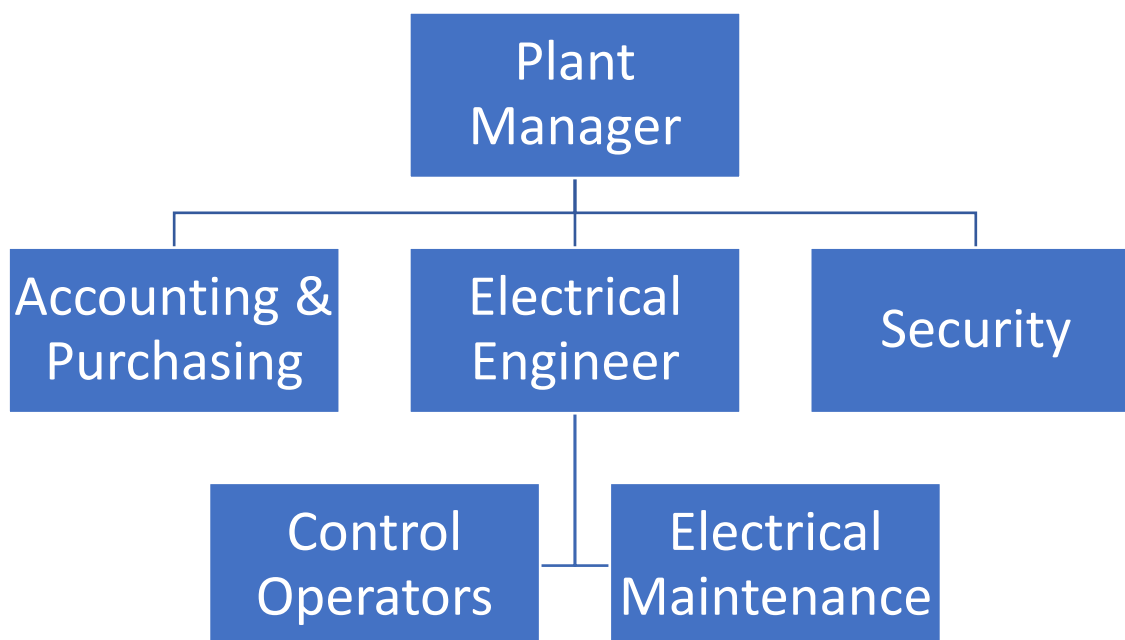
Corrective actions and emergency preparedness

The Project Owner regularly checks the monitoring system for errors. In the case of errors, corrective actions will be undertaken by the Project Participant, or if required, by the supplier of the monitoring equipment.

Data will be stored electronically, during the crediting period and at least two years after the last issuance of credits for the project activity in the concerning crediting period. The Project Owner is responsible for storage of data received from the measuring devices.

During the monitoring period, no breakdown or serious maintenance work has been experienced. Ordinary maintenance activities have been executed.

Table 5. Organizational Chart



15.2 Data and parameters to quantify the reduction of emissions

Data and Parameters fixed ex-ante:

- $EF_{grid,OM,y}$
- $EF_{grid,BM,y}$
- $EF_{grid,CM,y}$

Data and Parameters to be monitored:

- $EG_{PJ,y}$
- ER_y
- Number of Employment
- Quality of Employment

15.2.1 Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors

<i>Data / Parameter</i>	EF_{grid,CM,y}
<i>Data unit</i>	tCO ₂ / MWh
<i>Description</i>	Combined Margin Emission Factor of the Turkish National Grid. It's been published by Turkish Ministry of Energy and Natural Sources for 2021 on 18/03/2024.
<i>Source of data used</i>	Turkish Ministry of Energy and Natural Sources. See: https://enerji.gov.tr/evced-cevre-ve-iklim-turkiye-ulusal-elektrik-sebekesi-emisyon-faktoru
<i>Value (s)</i>	0.6345
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	Calculation of baseline emissions
<i>Justification of choice of data or description of measurement methods and procedures applied</i>	Official data published by Host Country's Ministry of Energy and Natural Sources
<i>Additional comments</i>	-

<i>Data / Parameter</i>	EF_{grid,OM,y}
<i>Data unit</i>	tCO ₂ / MWh
<i>Description</i>	Operating Margin Emission Factor of the Turkish National Grid. It's been published by Turkish Ministry of Energy and Natural Sources for 2021 on 18/03/2024.
<i>Source of data used</i>	Turkish Ministry of Energy and Natural Sources. See: https://enerji.gov.tr/evced-cevre-ve-iklim-turkiye-ulusal-elektrik-sebekesi-emisyon-faktoru
<i>Value (s)</i>	0.7279
<i>Indicate what the data are used for (Baseline/</i>	Calculation of baseline emissions

<i>Project/ Leakage emission calculations)</i>	
<i>Justification of choice of data or description of measurement methods and procedures applied</i>	Official data published by Host Country's Ministry of Energy and Natural Sources
<i>Additional comments</i>	-

<i>Data / Parameter</i>	EF_{grid,BM,y}
<i>Data unit</i>	tCO ₂ / MWh
<i>Description</i>	Build Margin Emission Factor of the Turkish National Grid. It's been published by Turkish Ministry of Energy and Natural Sources for 2021 on 18/03/2024.
<i>Source of data used</i>	Turkish Ministry of Energy and Natural Sources. See: https://enerji.gov.tr/evced-cevre-ve-iklim-turkiye-ulusal-elektrik-sebekesi-emisyon-faktoru
<i>Value (s)</i>	0.3541
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	Calculation of baseline emissions
<i>Justification of choice of data or description of measurement methods and procedures applied</i>	Official data published by Host Country's Ministry of Energy and Natural Sources
<i>Additional comments</i>	-

15.2.2 Data and parameters monitored

<i>Data / Parameter</i>	EG_{PJ,y}
<i>Data unit</i>	MWh/yr
<i>Description</i>	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y

Measured /Calculated /Default:	Measured																					
Source of data	Meters (EPIAŞ Records)																					
Value(s) of monitored parameter	Estimated: 420,000 MWh/year Realized: <table border="1"> <thead> <tr> <th>Period</th><th>Volume (MWh)</th></tr> </thead> <tbody> <tr> <td>19.12.2020-31.12.2020</td><td>829.18</td></tr> <tr> <td>01.01.2021-31.12.2021</td><td>30,813.19</td></tr> <tr> <td>01.01.2022-31.12.2022</td><td>184,237.01</td></tr> <tr> <td>01.01.2023-31.12.2023</td><td>328,532.16</td></tr> <tr> <td>01.01.2024-30.04.2024</td><td>139,802.44</td></tr> <tr> <td>Total</td><td>684,213.98</td></tr> <tr> <td>Annual Average</td><td>203,204</td></tr> </tbody> </table>	Period	Volume (MWh)	19.12.2020-31.12.2020	829.18	01.01.2021-31.12.2021	30,813.19	01.01.2022-31.12.2022	184,237.01	01.01.2023-31.12.2023	328,532.16	01.01.2024-30.04.2024	139,802.44	Total	684,213.98	Annual Average	203,204					
Period	Volume (MWh)																					
19.12.2020-31.12.2020	829.18																					
01.01.2021-31.12.2021	30,813.19																					
01.01.2022-31.12.2022	184,237.01																					
01.01.2023-31.12.2023	328,532.16																					
01.01.2024-30.04.2024	139,802.44																					
Total	684,213.98																					
Annual Average	203,204																					
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline emission calculations																					
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	<table border="1"> <thead> <tr> <th colspan="3">Ulu WPP</th></tr> <tr> <th>Parameters</th><th>Main Meter</th><th>Spare Meter</th></tr> </thead> <tbody> <tr> <td>Brand</td><td>EMH</td><td>EMH</td></tr> <tr> <td>Type</td><td>LZQJ-XC-P2FB-BB 1A</td><td>LZQJ-XC-P2FB-BB 1A</td></tr> <tr> <td>Location</td><td>On-site</td><td>On-site</td></tr> <tr> <td>Serial Number</td><td>9276687</td><td>9276688</td></tr> <tr> <td>Accuracy</td><td>0.2S</td><td>0.2S</td></tr> </tbody> </table>	Ulu WPP			Parameters	Main Meter	Spare Meter	Brand	EMH	EMH	Type	LZQJ-XC-P2FB-BB 1A	LZQJ-XC-P2FB-BB 1A	Location	On-site	On-site	Serial Number	9276687	9276688	Accuracy	0.2S	0.2S
Ulu WPP																						
Parameters	Main Meter	Spare Meter																				
Brand	EMH	EMH																				
Type	LZQJ-XC-P2FB-BB 1A	LZQJ-XC-P2FB-BB 1A																				
Location	On-site	On-site																				
Serial Number	9276687	9276688																				
Accuracy	0.2S	0.2S																				

	Calibration (First Index Protocol) Date	28/10/2020	28/10/2020
	Latest Test Date	23/08/2022	23/08/2022
Measuring/ Reading/ Recording frequency	Monthly		
Calculation method (if applicable)	The net electricity is the difference of the electricity supplied and consumed by the project and shall be taken into account for emission reduction calculations through EPIAS records. Thus, baseline emissions are based on the net electricity supplied to the grid.		
QA/QC procedures applied	- Back-up meters are used for crosschecking the accuracy and all meters are periodically tested. - 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, which describes the minimum accuracy requirement the metering devices have to fulfill, which are categorized according to the installed capacity. The periodical test or maintenance is under the responsibility of TEİAŞ. Since TEİAŞ meters are sealed by distribution company 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 / Parameter	ER _y
Data unit	tCO ₂ /yr

<i>Description</i>	Emission reductions by the project activity in year y (t CO₂/yr) In accordance with ACM0002, Version 22.0, baseline emissions include CO₂ from electricity generation in power plants that are displaced due to the project activity. And baseline emissions correspond to emission reductions and are calculated as the net electricity generated by the project activity, multiplied with combined margin CO₂ emission factor for grid connected power generation in year y.																
<i>Measured /Calculated /Default:</i>	Both measured and calculated																
<i>Source of data</i>	1. Meters 2. Turkish Ministry of Energy and Natural Sources																
<i>Value(s) of monitored parameter</i>	Estimated: 266,490 tCO₂e/year Realized: <table border="1"> <thead> <tr> <th>Period</th><th>Volume (tCO₂e)</th></tr> </thead> <tbody> <tr> <td>19.12.2020-31.12.2020</td><td>526</td></tr> <tr> <td>01.01.2021-31.12.2021</td><td>19,550</td></tr> <tr> <td>01.01.2022-31.12.2022</td><td>116,898</td></tr> <tr> <td>01.01.2023-31.12.2023</td><td>208,453</td></tr> <tr> <td>01.01.2024-30.04.2024</td><td>88,704</td></tr> <tr> <td>Total</td><td>434,131</td></tr> <tr> <td>Annual Average:</td><td>128,932</td></tr> </tbody> </table>	Period	Volume (tCO ₂ e)	19.12.2020-31.12.2020	526	01.01.2021-31.12.2021	19,550	01.01.2022-31.12.2022	116,898	01.01.2023-31.12.2023	208,453	01.01.2024-30.04.2024	88,704	Total	434,131	Annual Average:	128,932
Period	Volume (tCO ₂ e)																
19.12.2020-31.12.2020	526																
01.01.2021-31.12.2021	19,550																
01.01.2022-31.12.2022	116,898																
01.01.2023-31.12.2023	208,453																
01.01.2024-30.04.2024	88,704																
Total	434,131																
Annual Average:	128,932																
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	Baseline emission calculations																

Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Ulu WPP		
	Parameters	Main Meter	Spare Meter
	Brand	EMH	EMH
	Type	LZQJ-XC-P2FB- BB 1A	LZQJ-XC-P2FB- BB 1A
	Location	On-site	On-site
	Serial Number	9276687	9276688
	Accuracy	0.2S	0.2S
	Calibration (First Index Protocol) Date	28/10/2020	28/10/2020
	Latest Test Date	23/08/2022	23/08/2022
Measuring/ Reading/ Recording frequency	Monthly		
Calculation method (if applicable)	Both measured and calculated. Emission reductions will be calculated as considering the EPIAS records for the net electricity generated and the emission factor for the grid, 0.6345 tCO₂/MWh, published by the Ministry of Energy		
QA/QC procedures applied	- Back-up meters are used for crosschecking the accuracy and all meters are periodically tested. - 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, which describes the minimum accuracy requirement the metering		

	devices have to fulfill, which are categorized according to the installed capacity. The periodical test or maintenance is under the responsibility of TEİAŞ. Since TEİAŞ meters are sealed by distribution company 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 • As the emission factor is calculated by the Turkish Ministry of Environment and Urbanization, no further QA/QC procedure is needed for emission factor.
--	---

<i>Data / Parameter</i>	Number of Employment
<i>Data unit</i>	Number
<i>Description</i>	Number of people permanently working for the operation of the project
<i>Measured /Calculated /Default:</i>	N/A
<i>Source of data</i>	Social Security System (SGK) records
<i>Value(s) of monitored parameter</i>	22
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	To assess to contribution to SDG8.
<i>Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)</i>	Social Security System (SGK) records

<i>Measuring/ Reading/ Recording frequency</i>	Annually
<i>Calculation method (if applicable)</i>	Counting the number of employment from SGK records
<i>QA/QC procedures applied</i>	N/A

<i>Data / Parameter</i>	Quality of Employment
<i>Data unit</i>	Number of trainings provided
<i>Description</i>	Number of OHS and job-related training provided to the employees
<i>Measured /Calculated /Default:</i>	N/A
<i>Source of data</i>	Training Records
<i>Value(s) of monitored parameter</i>	OHS Training – 06/01/2023 – 12 employees OHS Training – 03/03/2023 – 7 employees OHS Training – 24/02/2023 – 9 employees OHS Training – 10/04/2023 – 10 employees OHS Training – 27/04/2023 – 11 employees OHS Training – 15/05/2023 – 8 employees OHS Training – 26/05/2023 – 12 employees OHS Training – 06/01/2023 – 12 employees Advanced Fire Training - 2022 - 10 employees Safe Driving Training - 2023 - 4 employees Integrated Management System Training - 2022 - 1 employee WINDA Course Participant Training – 2021/2022 – 5 employees Basic Level Hydraulic Training - 2023 - 2 employees First Aid Training – 2022/2023 – 9 employees Electrics Training – 2023 – 4 employees Cyber Security Training – 2023 – 7 employees

	Cable and Connection Systems Training – 2021 – 1 employee
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	To assess to contribution to SDG 8.
<i>Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)</i>	Training Records
<i>Measuring/ Reading/ Recording frequency</i>	Annually
<i>Calculation method (if applicable)</i>	Counting the number of trainings given to employees
<i>QA/QC procedures applied</i>	OHS training is provided to all employees working at the power plant. It is mandatory to provide OHS training to employees at least once a year. Certificates of OHS training will be stored in the site area during the operation period. According to “Regulation on the Procedures and Principles of Employee’s OHS Training” in official gazette No. 28648 on 15/05/2013, it is responsibility of PO to provide regular OHS trainings to employees. In addition to OHS trainings, the project owner provided job-related training the employees.

16 Quantification of GHG emission reduction / removals

16.1 Baseline emissions

According to the methodology baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are calculated as follows:

$$BE_y = EG_{PJ,grid,y} * EF_{grid,CM,y}$$

where:

BE_y	Baseline emissions in year y (tCO ₂)
$EG_{PJ,y}$	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
$EF_{grid,CM,y}$	Combined margin CO ₂ emission factor for grid connected power generation in year y calculated by using the latest version of the “Tool to calculate the emission factor for an electricity system” (tCO ₂ /MWh)

$$BE_y = 684,213.98 \text{ MWh} * 0.6345 \text{ tCO}_2/\text{MWh} = 434,131 \text{ tCO}_2$$

Table 6. Baseline Emissions

Month	(A) Electricity supplied to the grid [MWh]	(B) Electricity consumed from the grid [MWh]	(C) = (A) - (B) EG (ID 8) Net electricity supplied to the grid [MWh]	EF [tCO ₂ /kWh]	Baseline emission: ER = EG * EF [t CO ₂ -eq]
Dec-20	842.42	13.24	829.18	0.6345	526.12

Jan-21	2,498.99	14.51	2,484.49	0.6345	1,576.41
Feb-21	1,780.85	21.98	1,758.87	0.6345	1,116.00
Mar-21	1,759.38	44.04	1,715.34	0.6345	1,088.38
Apr-21	2,446.54	14.82	2,431.72	0.6345	1,542.93
May-21	1,527.19	7.34	1,519.85	0.6345	964.34
Jun-21	1,148.36	12.62	1,135.74	0.6345	720.63
Jul-21	2,856.98	6.00	2,850.98	0.6345	1,808.94
Aug-21	2,251.65	8.37	2,243.28	0.6345	1,423.36
Sep-21	2,401.86	5.15	2,396.70	0.6345	1,520.71
Oct-21	1,900.71	8.95	1,891.76	0.6345	1,200.32
Nov-21	2,769.23	23.70	2,745.53	0.6345	1,742.04
Dec-21	7,689.40	50.46	7,638.94	0.6345	4,846.91
Jan-22	7,860.80	61.52	7,799.28	0.6345	4,948.64
Feb-22	6,450.05	61.12	6,388.93	0.6345	4,053.78
Mar-22	8,216.15	60.92	8,155.24	0.6345	5,174.50
Apr-22	10,532.73	12.27	10,520.46	0.6345	6,675.23
May-22	9,791.22	9.77	9,781.45	0.6345	6,206.33
Jun-22	13,613.85	7.13	13,606.73	0.6345	8,633.47
Jul-22	23,804.56	3.89	23,800.68	0.6345	15,101.53
Aug-22	16,139.31	19.55	16,119.76	0.6345	10,227.99
Sep-22	17,590.24	12.84	17,577.40	0.6345	11,152.86
Oct-22	21,462.65	21.51	21,441.14	0.6345	13,604.40
Nov-22	24,449.56	25.13	24,424.43	0.6345	15,497.30
Dec-22	24,702.81	81.29	24,621.52	0.6345	15,622.35
Jan-23	24,893.15	112.49	24,780.66	0.6345	15,723.33
Feb-23	22,418.21	143.16	22,275.05	0.6345	14,133.52
Mar-23	27,406.32	61.20	27,345.12	0.6345	17,350.48
Apr-23	30,391.35	63.72	30,327.63	0.6345	19,242.88
May-23	14,175.58	45.09	14,130.49	0.6345	8,965.79
Jun-23	22,004.23	16.90	21,987.33	0.6345	13,950.96
Jul-23	34,930.32	7.80	34,922.52	0.6345	22,158.34
Aug-23	28,786.24	12.98	28,773.26	0.6345	18,256.63
Sep-23	26,049.22	12.51	26,036.72	0.6345	16,520.30
Oct-23	22,897.05	28.44	22,868.61	0.6345	14,510.13
Nov-23	42,124.45	8.25	42,116.20	0.6345	26,722.73
Dec-23	32,987.47	18.88	32,968.59	0.6345	20,918.57
Jan-24	41,824.83	26.86	41,797.97	0.6345	26,520.81
Feb-24	27,948.22	77.00	27,871.22	0.6345	17,684.29
Mar-24	24,009.97	71.14	23,938.84	0.6345	15,189.19
Apr-24	46,201.15	6.74	46,194.41	0.6345	29,310.36
19.12.2020 - 31.12.2020	842.42	13.24	829.18	0.6345	526

01.01.2021 - 31.12.2021	31,031.13	217.94	30,813.19	0.6345	19,550
01.01.2022 - 31.12.2022	184,613.93	376.93	184,237.01	0.6345	116,898
01.01.2022 - 31.12.2023	329,063.57	531.41	328,532.16	0.6345	208,453
01.01.2022 - 30.04.2024	139,984.17	181.73	139,802.44	0.6345	88,704
Total	685,535.22	1,321.24	684,213.98	0.6345	434,131

16.2 Project emissions/removals

In accordance with the methodology ACM0002 Version 22.0, “Grid-connected electricity generation from renewable sources”, no project emissions need to be considered. Project emissions apply only for geothermal power plants, solar thermal power plants and for some hydro power plants. Therefore,

$$PE_y = 0$$

16.3 Leakages

In line with the requirements of ACM0002 Version 22.0 “Grid-connected electricity generation from renewable sources”, no leakage emissions are considered. The main emissions potentially giving rise to leakage in context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g., extraction, processing and transport). These emission sources are neglected.

$$LE_y = 0$$

16.4 Net GHG Emission Reductions / Removals

Year	Baseline emissions / removals (tCO ₂ e)	Project emissions / removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions / removals (tCO ₂ e)
19.12.2020-31.12.2020	526	0	0	526
01.01.2021-31.12.2021	19,550	0	0	19,550
01.01.2022-31.12.2022	116,898	0	0	116,898
01.01.2023-31.12.2023	208,453	0	0	208,453
01.01.2024-30.04.2024	88,704	0	0	88,704
Total	434,131	0	0	434,131

16.5 Comparison of actual emission reductions with estimates in the project document

SDG 7:

Vintage	Period	Total Days	Amount achieved during this monitoring period (MWh)	Amount estimated ex ante (MWh)	Difference (MWh)	Difference (%)
2020	19.12.2020 - 31.12.2020	13	829.18	14,958.90	-14,129.72	-94.46%
2021	01.01.2021 - 31.12.2021	365	30,813.19	420,000.00	-389,186.81	-92.66%

2022	01.01.2022 - 31.12.2022	365	184,237.01	420,000.00	-235,762.99	-56.13%
2023	01.01.2023 - 31.12.2023	365	328,532.16	420,000.00	-91,467.84	-21.78%
2024	01.01.2024 - 30.04.2024	121	139,802.44	139,232.88	569.56	0.41%
Total	19.12.2020 - 30.04.2024	1,229	684,213.98	1,414,191.78	-729,978	-51.62%
Realized Annual Average (MWh/year)		203,204				
Estimated Annual Average (MWh/year)		420,000				

SDG 13

Vintage	Period	Total Days	Amount achieved during this monitoring period (tCO ₂ e)	Amount estimated ex ante (tCO ₂ e)	Difference (tCO ₂ e)	Difference (%)
2020	19.12.2020 - 31.12.2020	13	526	9,491	8,965	-94.46%
2021	01.01.2021 - 31.12.2021	365	19,550	266,490	246,940	-92.66%
2022	01.01.2022 - 31.12.2022	365	116,898	266,490	149,592	-56.13%

2023	01.01.2023 - 31.12.2023	365	208,453	266,490	-58,037	-21.78%
2024	01.01.2024 - 30.04.2024	121	88,704	88,343	361	0.41%
Total	19.12.2020 - 30.04.2024	1,229	434,131	897,305	-463,174	-51.62%
Realized Annual Average (tCO₂e/year)		128,932				
Estimated Annual Average (tCO₂e /year)		266,490				

16.6 Remarks on difference from estimated value in the registered project document

The difference between achieved electricity generation and amount estimated ex ante - 51.62% during the monitoring period.

The main reason for this marginal spread is that the turbines were commissioned during the monitoring period and the project has reached its full capacity by the end of 2022. The estimated annual electricity generation has been taken from the EMRA approved official generation license. In this document, estimated generation is calculated for the full capacity of the power plant; no estimated generation data is present for each turbine separately. Therefore, estimated annual generation and ER values were calculated based on full capacity, and large deviation has occurred in those years.

After reaching its full capacity, this deviation has decreased in 2023. The approximately 21% decrease this year was due to the climate conditions of that year; the wind intensity was less than expected.

In 2024, the estimated and realized values is almost the same.