



Verified Carbon Standard

ÇERÇİKAYA WIND POWER PROJECT

Project title	Çerçikaya Wind Power Project
Project ID	1667
Monitoring period	01-January-2024 to 09-January-2025
Original date of issue	16-September-2025
Most recent date of issue	30-May-2026
Version	06.00
VCS Standard Version	4.7
Prepared by	GAIA Climate Finansal Danışmanlık Hizmetleri Ve Ticaret A.Ş.

CONTENTS

PROJECT DETAILS	4
1.1 Summary Description of the Implementation Status of the Project	4
1.2 Audit History.....	6
1.3 Sectoral Scope and Project Type	6
1.4 Project Proponent	7
1.5 Other Entities Involved in the Project	7
1.6 Project Start Date	7
1.7 Project Crediting Period	8
1.8 Project Location	8
1.9 Title and Reference of Methodology	10
1.10 Double Counting and Participation under Other GHG Programs	11
1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions.....	11
1.12 Sustainable Development Contributions	12
1.13 Commercially Sensitive Information.....	15
2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT	15
2.1 Stakeholder Engagement and Consultation.....	15
2.2 Risks to Stakeholders and the Environment.....	18
2.3 Respect for Human Rights and Equity	21
2.4 Ecosystem Health	23
3 IMPLEMENTATION STATUS	25
3.1 Implementation Status of the Project Activity	25
3.2 Deviations	27
3.3 Grouped Projects	28
3.4 Baseline Reassessment.....	28
4 DATA AND PARAMETERS.....	28
4.1 Data and Parameters Available at Validation	28
4.2 Data and Parameters Monitored.....	33
4.3 Monitoring Plan.....	36
5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS	39
5.1 Baseline Emissions	39

5.2	Project Emissions	40
5.3	Leakage Emissions	40
5.4	GHG Emission Reductions and Carbon Dioxide Removals	40
APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION.....		43

PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project of ZT Enerji Elektrik Üretim San. Ve Tic. A.Ş. (hereafter referred to as “ZT Enerji”), Çerçikaya Wind Power Project (hereafter referred to as the “Project” or “Çerçikaya WPP”), involves installation and operation of 57 MW_e / 57MW_m¹ wind power plant by Energy Market Regulatory Authority (EMRA) and this license was issued on 1st of March 2012 and it has been revised on 17-June-2015.

The host country of the project is Türkiye. The project area is in the Mediterranean region, Hatay province. The project is in İskenderun District. Moreover, the site of the project is located at Çerçikaya Village and will be situated on several hills, between Karayol, Bozburun, Kırmızıtepe.

The aim of the project is to generate electricity by the efficient utilization of the available wind energy by project activity replace the grid electricity, which is constituted of different fuel sources, mainly fossil fuels. The electricity produced by project activity result in emission reduction. Thus, the project has a significant contribution to climate protection and to sustainable development in the region.

The project activity contributed further dissemination of wind energy and extension of national power generation.

The construction of the project started on 18-June-2014² and operation of the plant started on 10-January-2015³ and have an operational life of 49 years. The main 1st phased implementation of the 10 wind turbines was on 10-January-2015, 2nd phased implementation of the 5 wind turbines was on 19-February-2015. The 3rd and last phased implementation of the 4 wind turbines was on 20-March-2015⁴.

First crediting period is 10 years between on 10-January-2015 to 09-January 2025. An estimated net electricity generation of 184,017MWh per year, when the transmission loss is considered, by the efficient utilization of the available wind energy by project activity will replace the grid electricity, which is constituted of different fuel sources, mainly fossil fuels. The electricity produced by project activity will be expected to result in a total emission

¹ The temporary acceptance protocol for 19 turbines, dated on 24-June-2016

² Site delivery protocol has been submitted to the DOE.

³ The first temporary acceptance protocol signed by the Ministry of Energy and Natural Resources has been submitted to the DOE.

⁴ The temporary acceptance protocols signed by the Ministry of Energy and Natural Resources have been submitted to the DOE.

reduction of 101,473 tones of CO₂e per year. The expected total emission reduction for the first crediting period is 1,116,203 tones of CO₂e per crediting period. ⁵

First monitoring period was started on 10-January-2015. End date of the first monitoring period is on 31-December-2019. Total emission reduction achieved during first monitoring period (MP1) is 527,040 tCO₂e (for 10-January-2015- 31-December-2019). Generated net electricity during this monitoring period is 955,825.93MWh. ⁶

Second monitoring period was started on 01-January-2020. End date of the second monitoring period is on 31-December-2020. Total emission reduction achieved during second monitoring period is 114,847 tCO₂e (for 01-January-2020- 31-December-2020). Generated net electricity during second monitoring period is 208,284 MWh.

Third monitoring period (MP3) was started on 01-January-2021. End date of the third monitoring period is on 31-December-2023. Total emission reduction achieved during third monitoring period (MP3) is 312,270 tCO₂e (for 01-January-2021- 31-December-2023). Generated net electricity during this monitoring period is 566,325.82 MWh.

This (fourth) monitoring period (MP4) was started on 01-January-2024. End date of the fourth monitoring period is on 09-January-2025. Total emission reduction achieved during this monitoring period (MP4) is 105,262 tCO₂e (for 01-January-2024- 09-January-2025). Generated net electricity during this monitoring period is 190,902.12 MWh.

During the first crediting period, 19 turbines (Acciona AW125), each with a capacity of 3 MW, were installed.

The key parameters about the technical design of the selected model Acciona AW125 are listed in below table.

Table 1: Technical specifications of Acciona AW 125 Turbines⁷

⁵ Project Design Document validated by Bureau Veritas on 21.06.2017.

⁶ First Monitoring Report.

⁷ See, Technical Specifications of turbines

Specifications	Acciona AW 125
Rated Power (kW)	3000
Rotor Diameter (m)	125
Num. of Blades	3
Swept Area (m ²)	12,305
Hub Height	87.5 m
Tower Type	Tubular Steel
Wind Speed	cut-in: 3 m/s cut-out: 25 m/s

1.2 Audit History

Table 2 Audit History of Çerçikaya WPP

Audit type	Period	Program	Validation/verification body name	Number of years
Validation (First Crediting Period)	10-January-2015 – 9-January-2025	VCS	Bureau Veritas Certification Holding SAS	10
Verification (First Monitoring Period)	10-January-2015- 31-December-2019	VCS	Re Carbon Gözetim Denetim ve Belgelendirme Ltd. Şti.	4 year 11 month 21 day
Verification (Second Monitoring Period)	01-January-2020- 31-December-2020	VCS	Re Carbon Gözetim Denetim ve Belgelendirme Ltd. Şti.	1
Verification (Third Monitoring Period)	01-January-2021- 31-December-2023	VCS	Bureau Veritas Certification Holding SAS	3
Verification (Fourth Monitoring Period)	01-January-2024-09-January-2025	VCS	BM Certification	1 year 9 day

1.3 Sectoral Scope and Project Type

Sectoral scope ⁸	The sectoral scope of the project is “Energy industries (renewable - / non-renewable sources)”. Installed capacity of the project is 57 MWe, thus it falls into a large-scale project activity.
Project activity type	Large scale and not grouped project.

1.4 Project Proponent

Organization name	ZT Enerji Elektrik Üretim San. Ve Tic. A.Ş.
Contact person	Ahmet Şenol
Title	Energy Engineer
Address	Hatır Sokak No:22 Gaziosmanpaşa / Ankara
Telephone	+90 530 601 9953
Email	asenol@zaf.com.tr

1.5 Other Entities Involved in the Project

Organization name	GAIA Climate Finansal Danışmanlık Hizmetleri Ve Ticaret A.Ş.
Role in the project	Project Consultant
Contact person	Gediz S. Kaya
Title	Managing Partner
Address	MASLAK MAH.MASLAK MEYDAN SK. BEYBI GİZ PLAZA A BLOK NO:1/99 SARIYER /İSTANBUL
Telephone	+90 533 308 9708
Email	gkaya@gaiacclimate.com

1.6 Project Start Date

Project start date	10-January-2015
--------------------	-----------------

⁸ Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: <https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes>

Justification	The project start date, 10-January-2015, conforms with VCS Program requirements by ensuring additionality, establishing a credible baseline. The first date of emission reduction is the start date of the project, therefore 10-Jan-2015 is the start date of the project.
---------------	---

1.7 Project Crediting Period

A two times renewable crediting period of 10 years 0 month shall apply. First verifiable emission reductions achieved on 10th of January 2015. Thus, the first crediting period shall last from 10th of January 2015 until 9th of January 2025.

This, monitoring period (MP4) is covering the first crediting period. (01-01-2024 – 09-01-2025).

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Ten years, twice renewable. According to VCS Standard v3.3 Section 3-8.1 project crediting period is fixed as 20 years.
Start and end date of first or fixed crediting period	10-January-2015 to 9-January-2025

1.8 Project Location

The host country is Türkiye. The project area is in the Mediterranean region, Hatay province. The project is in İskenderun District. Moreover, the site of the project is located at Çerçikaya Village and will be situated on several hills, between Karayol, Bozburun, Kırmızıtepe.



Figure 1: Location of Çerçikaya Wind Power Plant Project⁹

Table 3: Geographical coordinates of the wind turbines of the project activity¹⁰

Turbine No.	Latitude (N)	Longitude (E)
1	4036583,00	242252,00
2	4036443,00	242120,00
3	4036276,00	241940,00
4	4036110,00	241760,00
5	4035944,00	241580,00
6	4035743,00	241492,00
7	4035553,00	241466,00
8	4035367,00	241431,00
9	4035183,00	241383,00
10	4034998,00	241320,00
11	4034834,00	241226,00
12	4034673,00	241130,00

⁹ Registered PDD, page 10

¹⁰ See, Validation Report, page 8

13	4034372,00	241038,00
14	4033993,00	241080,00
15	4033655,00	241086,00
16	4033288,00	241406,00
17	4033006,00	241499,00
18	4032768,00	241548,00
19	4032510,00	241626,00

1.9 Title and Reference of Methodology

For the determination of the baseline, the official methodology ACM0002 version 17.0.0¹¹, “Large-scale Grid-connected electricity generation from renewable sources”, is applied, using conservative options and data as presented in the following section. This methodology refers to five Tools, which are represented in the table below.

For baseline calculation the first tool, for additionality assessment the second tool is used. As third tool is the combination of the first and second tool, it is not used. Since no project emission or leakage calculation is required for wind power project fourth tool is not used, and finally to determine the remaining lifetime of the equipment fifth tool is used.

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	ACM0002 ¹²	Large-scale Grid-connected electricity generation from renewable sources	17.0.0
Tool	Tool 01 ¹³	Tool for the demonstration and assessment of additionality	07.0.0

¹¹See; https://cdm.unfccc.int/filestorage/D/5/Y/D5YFS9I3VKBT18MQNGX0LPZ6U7AWCO/ACM0002_%28v17%200%29_clean.pdf?t=cEt8bzhodnhmfDB9LEc_AfNqpHkBqVvBVogp

¹² See; https://cdm.unfccc.int/filestorage/D/5/Y/D5YFS9I3VKBT18MQNGX0LPZ6U7AWCO/ACM0002_%28v17%200%29_clean.pdf?t=cEt8bzhodnhmfDB9LEc_AfNqpHkBqVvBVogp

¹³ See; <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf>

Tool	Tool 02 ¹⁴	Combined tool to identify the baseline scenario and demonstrate additionality	06.0.0
Tool	Tool 03 ¹⁵	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion	02.0.0
Tool	Tool 07 ¹⁶	Tool to calculate the emission factor for an electricity system	05.0.0
Tool	Tool 10 ¹⁷	Tool to determine the remaining lifetime of the equipment	01.0

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Was the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

¹⁴ See; <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-02-v6.0.pdf>

¹⁵ See; <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-03-v2.pdf>

¹⁶ See; <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v5.0.pdf>

¹⁷ See; <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf>

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

☐ Yes

☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes

☒ No

1.12 Sustainable Development Contributions

The project implements grid-connected wind power technology in Türkiye and contributes to nationally stated sustainable development priorities in line with the VCS MR guidelines. The sustainable development contributions described in Table 1 of this report support Türkiye's National Energy Plan, Climate Change Strategy, and Nationally Determined Contribution (NDC) by increasing the share of renewable energy in the national energy mix, reducing greenhouse gas emissions, and strengthening energy security through domestic electricity generation. The project also contributes to green growth and employment through local job creation and supports environmental protection objectives through landscaping and reforestation activities. These contributions are aligned with SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), and SDG 13 (Climate Action). The project's sustainable development contributions are monitored and reported for each monitoring period using electricity generation data from the SCADA system and grid meters, employment records, records of landscaping and reforestation activities, and annual GHG emission reduction calculations, and are subject to third-party verification under the VCS framework.

Table 4: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	7.0	By 2030, increase the total amount of electricity supplied from renewable sources to the power grid.	Implemented activities to increase.	190,902.12 MWh of electricity from renewable sources has been supplied to the power grid during this reporting period.	The project supplied 1,921,337.89 MWh to the grid over the project lifetime.

2)	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.	Implemented activities to increase.	There are 17 employees currently working on the project during this monitoring period.	17 people have been employed by the project lifetime.
3)	13.2	Integrate climate change measures into national policies, strategies and planning.	Implemented activities to decrease GHG emissions.	The project has achieved a total GHG emission reduction of 105,262 tCO ₂ e during the reporting period.	The project achieved an accumulated 1,059,419 tCO ₂ e GHG emission reduction over the project lifetime.

1.13 Commercially Sensitive Information

N/A.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

Being a wind power generation project, there are no negative environmental and/or socio-economic impacts due to the project.

2.1.1 Stakeholder Identification

During the registration of this project, Local Stakeholder Consultation meeting was held on 06-December-2013 in Kömürçukuru Village of Belen District. The purpose of the meeting was to inform public and stakeholders about the plan and present and discuss social and environmental impacts of the project. Although the wind power plant is located between Çerçikaya and Kömürçukuru villages, it is administratively affiliated with Kömürçukuru Village. For this reason, all consultations and interviews were carried out with residents of Kömürçukuru, as the project site does not fall within the boundaries of Çerçikaya Village, which has a different village head (mukhtar). Only the facility name is referred to as “Çerçikaya.” Invitation process for local stakeholder meeting was followed and about 20 associations/governmental offices were invited by invitation letters or calling. Apart from this kind of invitation other stakeholders were invited by local announcements such as announcement done on village coffeehouse and in newspaper. All possible stakeholders were tried to be contacted via different kinds of communication ways such as sending letters to the invitees and local announcements. After sending letters to stakeholder, telephone calls were done to confirm receipt of invitation letters. Although all invitees respond positively to the project, many of them did not attend to the stakeholder meeting. During the meeting, representative of local governmental institutions and villagers expressed their support for renewable energy project of Çerçikaya WPP. In addition, during the meeting, it was explained to the participants that there will be a complaint and request form (comment book) is available at Çerçikaya WPP site and Project Participant check the comments in the book on a regular basis, and record responses. During first monitoring period, a site visit including the stakeholder engagement procedure was conducted at the Kömürçukuru village with the Kömürçukuru Village head (mukhtar) and the local stakeholders on 10-January-2020. The mukhtar of Kömürçukuru invited a phone call to the meeting and it is requested from the Mukhtar to inform villagers about the meeting. Eleven people including Kömürçukuru Village mukhtar, three Çerçikaya WPP employees and seven local stakeholders were interviewed.

All these people are from either K  m  r  ukuru village or local villages around the plant. There was not any negative feedback from the locals. Locals stated that they are happy with the project since   er  ikaya WPP provided employment opportunities for local people¹⁸. Since there were no negative feedback from the locals, there is no need to take any further action.

Also, mukhtar (head of the village) of K  m  r  ukuru village had already taken the contact information of Plant Manager of the company so that the local stakeholders will be able to reach Plant Manager whenever they have any complaints, suggestions or ideas about the project.¹⁹ Since mukhtar is the head of the village, he will be the main contact person between the project owner and the local stakeholders. Mukhtar will make sure that there's continuous communication between the two parties. During this monitoring period no grievances were raised.

During second monitoring period (01-01-2020 – 31-12-2020), a site visit including the stakeholder engagement procedure was conducted at the K  m  r  ukuru village with the K  m  r  ukuru Village head (mukhtar) and the local stakeholders on 10-August-2023. During the site visit, ten residents participated in the monitoring activities. One of the participants was identified as a local housewife, and no negative comments were provided by any of the participants. These information was confirmed by the DOE.

During third monitoring period (01-01-2021 – 31-12-2023), a remote site visit including the stakeholder engagement procedure was conducted on 26-April-2024. During the site visit, four local people participated in the monitoring activities. This information was confirmed by the DOE.

During this (fourth) monitoring period (01-01-2024 – 09-01-2025), a physical site visit including the stakeholder engagement procedure was conducted on 29-August-2025. During the site visit, six local people including one woman participated in the monitoring activities. This information was confirmed by the DOE. In addition, the mukhtar maintains a logbook, which was reviewed by the DOE during the physical site visit, and no negative feedback or comments were recorded in the logbook.

According to the EIA Regulation, there is no legal requirement for a local stakeholder meeting. However, as this project falls under the VERRA carbon development program, consultations with the local community are already being conducted. Field inspections will be carried out for the monitoring period, and a local stakeholder meeting has been scheduled.

Stakeholder Identification

The stakeholders likely to be impacted by the project were identified through site visits, local authority consultations,

¹⁸ Social security records of the current employees have been provided to DOE.

¹⁹ The signed and sealed letter by the Village Head (Mukhtar) confirming the communication details of PP responsible staff has been provided to DOE.

	and community engagement activities conducted in the project area. Based on this process, the primary stakeholders were identified as villagers and local residents living in the vicinity of the project site.
Legal or customary tenure/access rights	Article 9 of the Environmental Impact Assessment Regulation
Stakeholder diversity and changes over time	Since the previous stakeholder consultation round, no material change has been observed in the overall stakeholder makeup. However, minor variations in participation levels have occurred due to seasonal migration and temporary employment patterns, which did not affect the representativeness of the consultation process. As a result, the range of opinions, expectations, and concerns remains broadly consistent.
Expected changes in well-being	The implementation of the wind power project is expected to bring positive changes in the well-being of the community, including enhanced access to clean energy, job creation, economic growth through local investment, and a reduction in environmental impact, ultimately contributing to a more sustainable and prosperous future for all stakeholders involved.
Location of stakeholders	Kömürçukuru Village of Belen District
Location of resources	Kömürçukuru Village of Belen District

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	There is a complaint and request form (comment book) at the Çerçikaya WPP site and the Project Participant regularly checks the comments in the book and records the responses.
Date(s) of stakeholder consultation	29-August-2025
Communication of monitored results	There was not any negative feedback from the locals. Locals stated that they are happy with the project since Çerçikaya WPP provided employment opportunities and social responsibility projects for local people.

Consultation records	Six local stakeholders were interviewed. One of them is a woman, and one of the men is a mukhtar. Face-to-face negotiations were done, and their comments were listened.
Stakeholder input	Since there were no negative feedback from the locals, there is no need to take any further action.

2.1.3 Free, Prior, and Informed Consent

Consent	N/A since there are no conflicts.
Outcome of FPIC	N/A since there was not any negative feedback for the project.

2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
N/A	The grievance mechanism remains in place and is easily accessible to villagers and local residents through the project's local contact points and community communication channels, allowing stakeholders to submit concerns at any time.

2.1.5 Public Comments

Summary of comments received	Actions taken
There was no negative feedback from the locals, there is no need to take any further action.	Business as usual.

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

The project proponent, ZT Enerji, has extensive experience in developing and managing multiple renewable energy power plant projects under recognized carbon crediting standards. This includes years of expertise in preparing, implementing, and monitoring carbon crediting activities, which demonstrates the capacity of the management team to successfully deliver emission reduction projects.

To further strengthen project implementation, ZT Enerji collaborates with GAIA Climate, an experienced project consultant specializing in carbon markets and sustainability. GAIA Climate provides technical advisory support to ensure full compliance with carbon crediting requirements and international standards. This partnership ensures that the project benefits from both ZT Enerji's operational experience and GAIA Climate's specialized expertise.

2.2.2 Risk assessment

	Risk identified	Mitigation or preventative measure(s) taken
Natural and human-induced risks to stakeholders' wellbeing	No risk identified.	All project activities are carried out in compliance with Turkish laws and regulations. No natural or human-induced risks to stakeholders' wellbeing have been identified. In addition, various donations and community support activities have been carried out within the scope of the project. These include in-kind contributions such as food aid packages, water infrastructure materials, and equipment for local institutions, as well as financial donations to local authorities. All related donation invoices have been submitted to the VVB.
Risks to stakeholder participation	No risk identified.	There is no risk associated with this issue and therefore no mitigation has been taken.
Working conditions	No risk identified.	All working conditions are in compliance with the Turkish Labor Law, ensuring that there is no risk associated with any working conditions. All employees have received a 16-hour face-to-face "Occupational Health and Safety" training. The training records, along with the social security (SGK) registration records of all employees, have been submitted to the VVB.

Safety of women and girls	No risk identified.	Türkiye is a party to the main Human Rights Conventions under the UN framework, thus guaranteeing women's rights and safety. ²⁰
Safety of minority and marginalized groups, including children	No risk identified.	Türkiye is a party to the main Human Rights Conventions under the UN framework, thus guaranteeing minority and marginalized groups, including children's rights and safety.
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	Wastewater discharge, generation of waste and release of hazardous materials risks are identified.	Precautions regarding wastewater discharge, waste generation, and the release of hazardous substances are managed in accordance with the Turkish Environmental Law, thereby eliminating associated risks. All evidence of compliance with the Environmental Law was presented to the DOE. Hazardous and non-hazardous wastes are collected at the designated waste collection area on site and are regularly delivered to a licensed waste management company under a contractual agreement. All applications and transfers are carried out through the MOTAT system, the Waste Management platform operated under the Ministry of Environment, Urbanization and Climate Change of Türkiye. Records related to the monitoring period have been submitted to the VVB.

²⁰ <https://www.mfa.gov.tr/insan-haklari-ve-birlesmis-milletler.tr.mfa>

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

	Risks identified ²¹	Mitigation or preventative measure(s) taken
Discrimination	No risk identified.	There have been no instances of discrimination. No legal issues have arisen in this regard. A declaration letter has been presented to the verifier.
Sexual harassment	No risk identified.	There have been no instances of sexual harassment. No legal issues have arisen in this regard. A declaration letter has been presented to the verifier.
Gender equity in labor and work	No risk identified.	In this project, there are no female employees, as women in the region are less inclined to work in the energy sector, particularly as engineers, due to the cultural context. However, if a female applicant were to apply, the Project Owner would evaluate the application thoroughly, ensuring equal opportunities in terms of gender equity and pay for labor and work.
Forced labor	No risk identified.	The project does not engage in the use of victims of forced labor. Recruitment is conducted in accordance with Turkish Labor Law, which strictly prohibits child labor under Article 71. Workers are protected by Turkish Labor Law.

²¹ The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

		A declaration letter has been presented to the verifier.
Child labor	No risk identified.	The project does not engage in the use of victims of child labor. Recruitment is conducted in accordance with Turkish Labor Law, which strictly prohibits child labor under Article 71. Workers are protected by Turkish Labor Law. A declaration letter has been presented to the verifier.
Human trafficking	No risk identified.	The project does not engage in the use of victims of human trafficking. Recruitment is conducted in accordance with Turkish Labor Law, which strictly prohibits child labor under Article 71. Workers are protected by Turkish Labor Law. A declaration letter has been presented to the verifier.

2.3.2 Human Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified.	As a signatory to the United Nations Convention on Human Rights, Türkiye is committed to abiding by the principles set out in this convention. In this way this WPP project recognize, respect, and promote the protection of the rights of IPs, LCs, and customary rights holders in line with United Nations Convention on Human Rights. This project is operated by a privately owned company and continues to operate in compliance with all human rights laws.

2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Mitigation(s) or preventative measure taken
------------------	---

No risk identified.	Environmental impact assessment is not required is the decision of the Governorate stating that the environmental impacts of the projects subject to the selection and screening criteria are examined, that there are no significant environmental impacts and that there is no need to prepare an Environmental Impact Assessment Report. A review was conducted for the Çerçikaya WPP project and EIA is not required. The assessment has determined that the project does not pose a threat to the preservation and protection of cultural heritage. EIA Not Required Certificate is available in Annex-1. ²²
---------------------	--

2.3.4 Property Rights

Risks identified	Mitigation or preventative measure(s) taken
N/A	N/A

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	N/A. This is a private wind power plant. VER revenues are not subject to benefit sharing.
Benefit sharing during the monitoring period	N/A. This is a private wind power plant. VER revenues are not subject to benefit sharing.

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure(s) taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified.	The project was validated on 21-June-2017 and did not contain any parameters threatening ecosystem health. This project does not include monitoring

²² Appendix 1: EIA Not Required Certificate

		parameters related to ecosystem health and biodiversity impact. Moreover, an Environmental Impact Assessment (EIA) is not required for this project.
Soil degradation and soil erosion	No risk identified.	This is a wind power plant project, so non-relevant.
Water consumption and stress	No risk identified.	This is a wind power plant project, so non-relevant.

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	The absence of rare, threatened, or endangered species in the project area confirms that the project does not pose any threat to their habitats. This further supports the conclusion that an Environmental Impact Assessment (EIA) was not required.
Areas needed for habitat connectivity	No areas critical for habitat connectivity were identified within the project site. Therefore, the project has not caused any adverse impact on habitat connectivity during the monitoring period.

	Risks identified	Mitigation or preventative measure(s) taken
Habitats for rare, threatened, and endangered species	No presence of rare, threatened, or endangered species within the project area; therefore, no risk of adverse impacts on their habitats.	Site selection ensured absence of such species; confirmation supported by the fact that an EIA was not required.
Areas for habitat connectivity	No critical habitat connectivity areas identified within or near the project site.	Project location chosen to avoid potential habitat fragmentation; continuous monitoring ensures no adverse impacts.

2.4.2 Introduction of species

Species introduced	Classification	Justification for use	Adverse effects and mitigation
N/A			

	Risks identified	Mitigation or preventative measure(s) taken
Invasive species	N/A	No invasive species were identified within the project area. Considering that the presence of such species would have required an Environmental Impact Assessment (EIA), the issuance of a 'No EIA Required' decision confirms the absence of related risks. Accordingly, no mitigation measures are required.

2.4.3 Ecosystem conversion

	Risks identified	Mitigation or preventative measure(s) taken
Ecosystem conversion	N/A	Since this is not AFOLU project.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

Çerçikaya WPP started to generate and provide electricity to the Turkish National Grid on 10-January-2015.

During the monitoring period, there was no event or situation that occurred, which may impact the applicability of the methodology. Registration of Cercikaya WPP was carried out by Life İklim ve Enerji Ltd. Şti. However, for the verification processes, Carbon Consultant of the project has changed as Gaia Climate Finansal Danışmanlık Hizmetleri Ve Ticaret A.Ş.

Table 5 Project Timeline

Milestone	Date
Agreement with Carbon consultant	05-12-2013
Turbine foundation agreement	01-11-2013

Turbine agreement	10-12-2013
EIA Not Required Certificate for 19 turbines	24-01-2014
Bankable Energy Yield Assessment Report for Çerçikaya WPP	06-03-2014
Loan agreement with the bank	13-08-2014
The date for start of construction (Field delivery record)	18-06-2014
Start Date of First Crediting Period	10-01-2015
Provisional Acceptance Date of Turbines (T7, T8, T9, T10, T11, T12, T16, T17, T18, T19) (Project start date, 1st phase)	10-01-2015
Provisional Acceptance Date of Turbines (T2, T3, T13, T14, T15)	19-02-2015
Provisional Acceptance Date of Turbines (T1, T4, T5, T6) (Start date of whole operation, 3 phases)	20-03-2015
1st Monitoring Period	10-01-2015 – 31-12- 2019
Addition of 2 turbines (Increase from 57MWm/57MWe to 63.3MWm/63.3MWe) EIA Positive Decision	15-12-2020
Carbon consultant change for Verification	15-09-2021
2nd Monitoring Period	01-01-2020 – 31-12- 2020

3rd Monitoring Period	01-01-2021 – 31-12-2023
Addition of 2 turbines (Increase from 63.3MWm/63.3MWe to 80.6MWm/75.1MWe) EIA Positive Decision	28.09.2023
4th Monitoring Period	01-01-2024 – 09-01-2025
End Date of First Crediting Period	09-01-2025
Provisional Acceptance Date of Turbines (T20, T22)	28-03-2025
Provisional Acceptance Date of Turbines (T21, T23)	25-04-2025
Dates of Second Crediting Period	10-01-2025 – 09-01-2035

3.2 Deviations

3.2.1 Methodology Deviations

No deviation in the methodology has been applied to the project activity during the monitoring period.

3.2.2 Project Description Deviations

As per the registered VCS-PD (v03 dated 24/02/2017), the project start date was indicated as 20/03/2015 since it is expected that the generation of electricity fully started on 20th of March 2015 which was indicated in Section 1.1 of the PD. However, as per the official provisional acceptance protocols of the wind turbines, the start date of the operation is 10 January 2015. Also, in the approved Verification Report (v04, dated 21/03/2024) for the second monitoring period, the start date is also indicated as 10 January 2015. Therefore, the start date of the project activity is taken as 10 January 2015 as per the provisional acceptance protocols of the wind turbines.

The registration of Çerçikaya WPP was conducted by Life İklim ve Enerji Ltd. Şti. However, for the verification processes, the carbon consultant of the project has been changed to Gaia Climate Finansal Danışmanlık Hizmetleri Ve Ticaret A.Ş.

3.3 Grouped Projects

N/A.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF _{grid, CM, y}
Data unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor for the project electricity system in year 2015
Source of data	As per “Tool to calculate the emission factor for an electricity system”
Value applied	0.5514 tCO ₂ /MWh
Justification of choice of data or description of measurement methods and procedures applied	As per “Tool to calculate the emission factor for an electricity system” Obtained from data provided by the TEIAS for Turkish Power Sector; Combined Margin = 0.5514 tCO ₂ e/MWh.
Purpose of data	Used for baseline emission calculation.
Comments	-

Data / Parameter	Gross electricity generation
Data unit	MWh
Description	Gross Electricity supplied to the grid by relevant sources (2013-2015)

Source of data	Turkish Electricity Transmission Company (TEİAŞ), Annual Development of Türkiye's Gross Electricity Generation of Primary Energy Resources (2013-2015) TEİAŞ https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri , Excel Table with sheet No.55
Value applied	See Validated VCS-PD, Table 13
Justification of choice of data or description of measurement methods and procedures applied	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Türkiye.
Purpose of Data	Data used for emission reduction calculation
Comments	-

Data / Parameter	Eg facility,y
Data unit	MWh/yr
Description	Quantity of net electricity generation by the project plant in a year
Source of data	Turkish Electricity Transmission Company (TEİAŞ), Annual Development of Electricity Generation- Consumption and Losses in TürkiyeTEİAŞ see https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri (Excel files with sheet number 52 and 55 are used for the calculation of the net electricity generated by relevant sources)
Value applied	See Validated VCS-PD, Hata! Başvuru kaynağı bulunamadı. and Hata! Başvuru kaynağı bulunamadı.
Justification of choice of data or description of measurement methods and procedures applied	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Türkiye. This data is used to find relation between the gross and net electricity delivered to the grid by fossil fuel fired power plants. (See Table 14). Import and Export data is used to identify total net electricity fed into the grid in the years of 2013, 2014 and 2015 (See Table 15).
Purpose of Data	Data used for emission reduction calculation
Comments	-

Data / Parameter	EF _{CO₂,i,y}
Data unit	tCO ₂ /GJ
Description	CO ₂ emission factor of fuel type i used in year y
Source of data	IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the IPCC Guidelines on National GHG Inventories. See http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf
Value applied	See Validated VCS-PD, Table numbers 18 and 21
Justification of choice of data or description of measurement methods and procedures applied	No plant specific and national emission factor data is available in Türkiye. So, IPCC default data is used. For Fuel Oil Power Plants: 'Gas/Diesel Oil' data is used for conservativeness. For Coal Power Plants: In the 205 th page of official document given in the link below, it is stated that Çolakoğlu and İçdaş utilizes 'Taşkömürü' (Hardcoal). And at the Table-2 in page 157 of the same document, Taşkömürü is divided in two groups: Bituminous and Anthracite. Since Sub-Bituminous Coal is under Brown Coal in the same table and since Other Bituminous Coal has lower EF than Anthracite in 1.4 of IPCC Guidelines, EF for 'Other Bituminous Coal' is used. See: http://www.dpt.gov.tr/DocObjects/Icerik/4225/Enerji_Hammaddeleri_(Linyit_Taskomuru-Jeotermal)
Purpose of Data	Data used for emission reduction calculation
Comments	-

Data / Parameter	Sample Group for BM emission factor
Data unit	Name of the plants, MW capacities, fuel types, annual electricity generations and dates of commissioning.
Description	Most recent power plants which compromise 20% of total generation
Source of data	Annual Development of Fuels Consumed in Thermal Power Plants in Türkiye By The Electric Utilities, TEIAS: https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri https://www.teias.gov.tr/ilgili-raporlar
Value applied	See Validated VCS-PD, Table number 23.
Justification of choice of data or description of measurement	TEIAS is the national electricity transmission company, which makes available the official data of all power plants in Türkiye. The latest data available during PD preparation was for 2013. Hata! Başvuru kaynağı bulunamadı.

methods and procedures applied	
Purpose of Data	Data used for emission reduction calculation
Comments	The original TEİAŞ URLs referenced in the validated VCS-PD are no longer active due to restructuring and migration of the TEİAŞ website. The same official electricity generation, fuel type, installed capacity and sector statistics are currently published through the TEİAŞ “Türkiye Elektrik Üretim-İletim İstatistikleri” and “İlgili Raporlar” sections. Therefore, the updated references have been provided to ensure continued traceability of the underlying official data sources.

Data / Parameter	$\eta_{m,y}$
Data unit	-
Description	Average energy conversion efficiency of power unit m in year y
Source of data	Annex I the “Tool to calculate the emission factor for an electricity system”
Value applied	See Validated VCS-PD, Table 18
Justification of choice of data or description of measurement methods and procedures applied	For efficiency rates of Coal and Lignite Power Plants See Annex-1 of the Tool (highest rate is applied to be conservative) For Natural Gas and Oil plants efficiencies, default value given in the tool is applied: http://cdm.unfccc.int/methodologies/Tools/EB35_repan12_Tool_grid_emission.pdf Hata! Başvuru kaynağı bulunamadı.
Purpose of Data	Data used for emission reduction calculation
Comments	-

Data / Parameter	$HV_{i,y}$
Data unit	Mass or volume unit
Description	Heating Values of fuels consumed for electricity generation in the years of 2013, 2014 and 2015
Source of data	Heating Values of Fuels Consumed In Thermal Power Plants In Türkiye By The Electric Utilities, TEİAŞ. See: https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri , Excel Table with sheet No.69
Value applied	See Validated VCS-PD, Table 19

Justification of choice of data or description of measurement methods and procedures applied	There is no national NVC data in Türkiye. However, TEİAŞ announces Heating values of fuels. This data is used to calculate annual NCVs for each fuel type TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Türkiye. Hata! Başvuru kaynağı bulunamadı.
Purpose of Data	Data used for emission reduction calculation
Comments	-

Data / Parameter	$FC_{i,y}$
Data unit	Mass or volume unit
Description	Amount of fuel type i consumed in the project electricity system in year y
Source of data	Annual Development of Fuels Consumed in Thermal Power Plants in Türkiye by The Electric Utilities, TEİAŞ. See: https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri , Excel Table with sheet No.67
Value applied	See Validated VCS-PD, Table 20
Justification of choice of data or description of measurement methods and procedures applied	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Türkiye. Hata! Başvuru kaynağı bulunamadı.
Purpose of Data	Data used for emission reduction calculation
Comments	-

Data / Parameter	$NCV_{i,y}$
Data unit	TJ/Gg
Description	Net Calorific Value of fuel types in the years of 2013, 2014 and 2015
Source of data	Calculated by using $HV_{i,y}$ to $FC_{i,y}$ as Net Calorific Values of fuel types are not directly available in Türkiye.

Value applied	See Validated VCS-PD, Table 21
Justification of choice of data or description of measurement methods and procedures applied	TEİAŞ is the national electricity transmission company, which makes available the official data of power plants in Türkiye. Hata! Başvuru kaynağı bulunamadı.
Purpose of Data	Data used for emission reduction calculation
Comments	-

4.2 Data and Parameters Monitored

Data / Parameter	EG _{facility,y}															
Data unit	MWh/yr															
Description	Quantity of net electricity generation supplied to the grid in year y															
Source of data	Main source is the monthly meter readings records (EPIAŞ data). Invoicing of the electricity production is carried out according to EPIAŞ data; thus, rendering the EPIAŞ data official source of electricity generation.															
Description of measurement methods and procedures to be applied	The net electricity generation supplied to the grid is measured continuously by meters (both main and spare) and recorded monthly.															
Frequency of monitoring/recording	Annually															
Value monitored	<table><tr><td></td><td>Electricity supplied to the grid (MWh)</td><td>Electricity consumption from the grid (MWh)</td><td>Net electricity supplied to the grid [MWh]</td></tr><tr><td>01-January-2024 – 31-December-2024</td><td>187,877.13</td><td>536.372</td><td>187,340.76</td></tr><tr><td>01-January-2025 – 09-</td><td>3,587.09</td><td>25.73</td><td>3,561.36</td></tr></table>					Electricity supplied to the grid (MWh)	Electricity consumption from the grid (MWh)	Net electricity supplied to the grid [MWh]	01-January-2024 – 31-December-2024	187,877.13	536.372	187,340.76	01-January-2025 – 09-	3,587.09	25.73	3,561.36
	Electricity supplied to the grid (MWh)	Electricity consumption from the grid (MWh)	Net electricity supplied to the grid [MWh]													
01-January-2024 – 31-December-2024	187,877.13	536.372	187,340.76													
01-January-2025 – 09-	3,587.09	25.73	3,561.36													

	January-2025			
	Total	191,464.22	562.10	190,902.12
Monitoring equipment	Meters are in compliance with the communiqué for Metering Devices to be used in Electricity Market.			
	The specification of electricity meters of first 19 turbines are provided below:			
	Name	Serial Number	Brand – Model	Last Test dates ²³
	Main Meter	13933141	EMH/LZ QJ-XC	07-August-2024
	Backup meter	13933142	EMH/LZ QJ-XC	07-August-2024
	During the period 01/01/2024 – 06/08/2024, electricity generation was measured using the previously installed meters. The specifications of these electricity meters are provided below:			
	Name	Serial Number	Brand – Model	Last Test dates
	Main Meter	4585848	EMH	10-December-2022
	Backup meter	4585849	EMH	10-December-2022
	Accuracy class: Active 0.2S – Reactive 2			
QA/QC procedures to be applied	Measurements are undertaken using energy meters.			
	According to the Article 2 of the Communiqué of Meters in Electricity Sector²⁴: ‘The meters to be used in the electricity market			

²³ Meter test records are provided to DOE.

²⁴ http://www.epdk.gov.tr/documents/elektrik/mevzuat/teblig/elektrik/sayaclar_hakkinda/Elk_Tblg_Sayaclar.doc

shall be compliant with the standards of Turkish Standards Institute or IEC and have obtained "Type and System Approval" certificate from the Ministry of Trade and Industry.' Therefore, Ministry of Trade and Industry (Ministry) is responsible from control and calibration of the meters.

- Paragraph b) of the Article 9 of the 'Regulation of Metering and Testing of Metering Systems' (Regulation) of Ministry states that: 'b) Periodic tests of meters of electricity, water, coal gas, natural gas and current and voltage transformers are done every 10 years.' Therefore, periodic calibration of the meters will be done every 10 years.
- As above mentioned, the data acquisition and management and quality assurance procedures that are anyway in place, no additional procedures must be established for the monitoring plan. In addition to that the quantity of net electricity delivered to the grid will be cross checked with the meter reading records (OSF forms) provided to the company by TEİAŞ and internal reports provided to the head of the company by the plant manager.
- The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. Main source is the monthly meter readings records (EPIAŞ data). Data from remote automatic meter reading system (TEİAŞ data, OSOS) is used for crosschecking. Invoicing of the electricity production is carried out according

	to EPIAŞ data; thus, rendering the EPIAŞ data official source of electricity generation.
Purpose of the data	Calculation of emission reductions
Calculation method	The net electricity is calculated by: a) Subtracting self-consumption value from gross generation value for each month to find the net electricity supplied to the grid. b) Adding up all monthly net electricity values to calculate the total net electricity supplied to the grid during the monitoring period. c) Multiplying the total net electricity value with the CM emission factor.
Comments	-

4.3 Monitoring Plan

The baseline emission factors required for Çerçikaya WPP are predetermined, including Operating and Built Margin (see baseline description). The primary data to monitor is the quantity of electricity supplied to the grid by Çerçikaya WPP. This measurement is conducted continuously through metering devices. The main device located in the substation is responsible for providing the data used for monthly invoicing to TEİAŞ.

The Project Owner has been responsible to implement the monitoring report according to the UNFCCC rules and procedures. 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:

Monitoring data is collected in accordance with the agreement done between the project owner and Turkish Electricity Transmission Company (TEİAŞ) 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 spare meter. The design of the metering system was checked and approved by TEİAŞ 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 Communiqué 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. Concerning metering system accuracy, project participants must comply with relevant national legislation According to b) paragraph of the 9th Article of the Regulation of Metering and Testing of Metering Systems “periodic tests of meters of electricity, water, coal gas, natural gas and current and voltage transformer are done every 10 years.

Data has been and will continue to be 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 Proponent has been responsible for storage of data received from the measuring devices.

Monthly meter readings, both main and spare, are recorded using a remote automatic meter reading system. The primary source for these readings is EPIAŞ data (also known as PMUM), which is also the basis for electricity production invoicing, making it the official source of electricity generation data. For cross-checking purposes, data from TEİAŞ's remote automatic meter reading system (OSOS) is used. These readings are monitored to determine if calibration is required. The capacity of the transmission line connected is medium voltage of 154 kVA (Şenbük WPP Substation), the accuracy class for power meters have been defined in the Communiqué for Power Meters as 0.2S class. The calibration will be implemented in accordance with the related standard procedures. The periodical maintenance is under the responsibility of TEİAŞ and has been fixed as once in 10 years as mentioned above.

On 24-August-2024, the meters were replaced due to the expiration of their calibration seal period. The test date of the installed meters is 07 August 2024.²⁵

Removed Meters:

The removed meters were manufactured by EMH and are of the LZQJ-XC model. Both the main and backup meters had an accuracy rating of 0.2S class. The serial numbers of the main and backup meters were 4585848 and 4585849, respectively.

Installed Meters:

The newly installed meters were manufactured by EMH and are of the LZQJ-XC model. Both the main and backup meters have an accuracy rating of 0.2S–0.5S class. The serial numbers of the main and backup meters are 13933141 and 13933142, respectively.

Operational and Management Structure

As described before, the calculation of emission reductions primarily depends on two factors: net electricity generation (EG_{facility,y}) per year, and the emission factor Since project

²⁵ The Meter Test Reports and the Initial Index Protocol for the Replacement of Meters and Measuring Transformers have been presented to the VVB.

emission is zero no additional monitoring is required. The generation data are subject to the strict internal quality control systems of both parties.

The monthly meter reading documents are stored by ZT Enerji and TEİAŞ. The settlement notification, which is issued by TEİAŞ and includes the meter reading data, is stored on a TEİAŞ file server and accessible for ZT Enerji via a secured website. The meters themselves can always be read as plausibility check for verification. The emission factor is validated through quality control parameters by an independent external party. This process ensures the availability and high quality of the necessary data for monitoring without the need for additional structures or processes.

The Project Owner is responsible for the overall management of the monitoring procedures including recording, data collection, calculating emission reductions, and project emissions. Project Manager is responsible for all issues related to project and operation of the plant. On the other hand, plant manager is responsible for daily operational processes of the plant, management of the plant personnel, and other technical and management issues for the plant. Operator technicians are responsible for carrying out specific actions outlined in the monitoring plan i.e. they measure the electricity generation, the electricity supplied to the Turkish grid by the power plant (electricity export), and the electricity consumption from the Turkish grid (electricity imports) of the plant. They record data on an hourly basis and continuously oversee the operation of turbines in the control room during all day and night shifts, 24 hours a day. Plant securities are responsible for monitoring the field from cameras for all day and night and they tour the plant site in every two hours. Lastly, kitchen service is responsible for managing the kitchen and providing meal for the plant personnel. Roles and responsibilities have been summarized in the following chart.

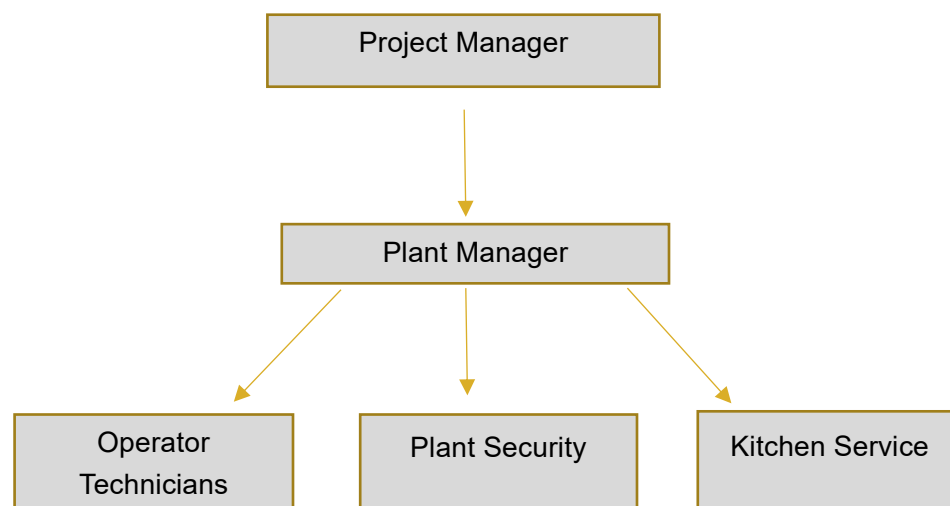


Figure 2: Operation and Management diagram

ZT Enerji has been and will continue keep all the data needed for the calculation of emission reductions during the crediting period and until two years after the last issuance of VCS for Çerçikaya WPP.

Because of the data acquisition and management and quality assurance procedures that are anyway in place, no additional procedures must be established for the monitoring plan. Dedicated emergency procedures are not provided, as there is no possibility of overstating emission reductions due to emergency cases.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The baseline emissions for the project were calculated in line with the applied methodology and the relevant tools ACM0002 Version 17.0.0; “Tool for the demonstration and assessment of additionality” v.07.0; “Tool to calculate the emission factor for an electricity system” v.05.0.

The methodology assumes that all the 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.

Accordingly, the baseline emissions are to be calculated as follows:

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

Where:

BE_y : Baseline emissions in year y (tCO₂)

$EG_{PJ,y}$: Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the VCS project activity in year y (MWh/yr)

$EF_{grid,CM,y}$: Combined margin CO₂ emission factor for grid connected power generation in year y

Since the project activity is the installation of a new grid-connected renewable power plant/unit at a site where no renewable power plant was operated prior to the implementation of the project activity:

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$: Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the VCS project activity in year y (MWh/yr)

$EG_{facility,y}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)

Therefore, the expected baseline emission for this monitoring period production of the project is:

$$BE_y = EG_{facility,y} * EF_{grid,CM,y} = 190,902.12 \times 0.5514 = 105,262 \text{ tCO}_2\text{e}$$

The Combined margin CO₂ emissions factor in year y (tCO₂/MWh), $EF_{grid,CM,y}$, is fixed ex-ante for the duration of the crediting period and is 0.5514 tCO₂e/MWh.

5.2 Project Emissions

The proposed project activity involves the generation of electricity by development of a wind farm. The generation of electricity does not result in greenhouse gas emissions and therefore is taken as 0 tCO₂/year.

5.3 Leakage Emissions

LE_y is 0, as it is not considered according to ACM0002. PE_y is 0 because project is a wind power generation activity (Only for geothermal and Hydro project activities, it should be considered according to ACM0002).

5.4 GHG Emission Reductions and Carbon Dioxide Removals

The total emission reductions can be calculated with the results of the below described equations. The emission reduction is equal to the baseline emissions minus project emissions and leakage emissions. Leakage emissions in this project are negligible. There are no project emissions in this kind of project. The general equation is as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

ER_y = Emission reductions in year y (t CO₂/yr).

BE_y = Baseline emissions in year y (t CO₂/yr).

PE_y = Project emissions in year y (t CO₂/yr).

LE_y = Leakage emissions in year y (t CO₂/yr).

With an actual annual project net electricity generation of amounts during the fourth monitoring period which listed above in section 4.2 parameter $EG_{facility,y}$, and fixed ex-ante

$EF_{grid,CM,y}$ listed in section 4.1 that calculated in Registered PD as 0.5514 tCO₂/MWh, net GHG emission reductions by calendar year are:

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
01-Jan-2024 to 31-Dec-2024	103,299	0	0	0	0	103,299
01-Jan-2025 to 09-Jan-2025	1,963	0	0	0	0	1,963
Total	105,262	0	0	0	0	105,262

Estimated emission reduction is 103,975 tCO₂ for the fourth monitoring period (from 01-January-2024 to 09-January-2025), and actual emission reduction achieved during the fourth monitoring period is 105,262 tCO₂. When they are compared, the actual emission reduction achieved during the fourth monitoring period is 1.2% more than the estimated figure which is slightly higher than the estimated value calculated in the registered PDD due to unexpected and varying wind patterns.

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jan-2024 to 31-Dec-2024	101,473	103,299	1.8%	This difference is attributable to unexpected wind trends observed at the project location during the monitoring period. An assessment of the project's SCADA records indicates deviations in wind speed and distribution compared to the long-term historical averages used in the baseline estimation. These variations suggest a temporary change in wind patterns affecting the overall wind potential. Nevertheless, the resulting difference remains within a

				reasonable and acceptable range.
01-Jan-2025 to 09-Jan-2025	2,502	1,963	24.1%	The deviation is due to short-term wind fluctuations and is not significant for the overall annual trend.
Total	103,975	105,262	1.2%	In the project location, Mediterranean region of Türkiye, a periodic increase or decrease can be observed due to changing wind regimes. The difference in the total sum. ER, 3% is reasonable.

APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

N/A