



Gold Standard®
for the Global Goals

Verification report

Publication date - 12/07/2025

Template Version - v1.3



Verification report of “Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project”

KEY PROJECT INFORMATION

GS ID (s)	GS 1068
Title of Project	Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project
Monitoring Period:	01/08/2023 to 23/09/2025 (Inclusive of both days)
Internal ID:	GS_ve_Tur_101_25
Customer	ITC-KA Enerji Üretim San. ve Tic. A.Ş.
Revision:	05

SUMMARY

Project Identification	
Project Identification No.	GS_ve_Tur_101_25
Date (First Version)	21/11/2025
Version No. (Last Version)	05
Date (Last Version)	18/03/2026
GHG Program Verification	Yes
GHG Certified Product (Sought)	GS VER
GHG SDG Impact Statement (Sought)	Impact Certification

General Information	
Client	ITC-KA Enerji Üretim San. ve Tic. A.Ş.
Project Title	Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project
Project Participants	Life Climate
Project Location	Osmangazi District, Bursa Province, Turkey
Contact Person	Mr. Emrah Baydun
Monitoring Period	01/08/2023 to 23/09/2025 (Inclusive of both days)

Standards and Methodologies	
GS4GG Version	GS4GG Principles and Requirements, Version 2.1
GS4GG Activity Requirements	RE Activity Requirements, Version 1.4
GS4GG Product Requirements	GHG Emissions Reduction & Sequestration Product Requirements, Version 3.0
Applied Methodology Version	ACM0001 “Flaring or use of landfill gas”, Version 19.0

Tools & Guidance Followed	Combined tool to identify the baseline scenario and demonstrate additionality – Version 07.0 Emissions from solid waste disposal sites – Version 08.1 Tool to calculate the emission factor for an electricity system - Version 07.0 Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation – Version 03.0 Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period – Version 03.0.1 Tool to determine the mass flow of a greenhouse gas in a gaseous stream – Version 03.0
GS4GG Sectoral Scope	13
UNFCCC CDM Sectoral Scope	13
Technical Area	13.1

Monitoring Reports

Document	Version	Date
Monitoring Report	02	16/10/2025
Monitoring Report	03	05/12/2025
Monitoring Report	04	10/02/2026
Final Monitoring Report	05	13/03/2026

SDG Impact Estimates

SDG	Indicator	Estimated (Annual / Period)	Actual Achieved
7 – Affordable and Clean Energy	Renewable Electricity Generated	68,600 MWh (annual) 147,349.04 MWh (current period)	45,595.04 MWh
8 – Decent Work and Economic Growth	Trainings Conducted	1 trainings	7 trainings
8 – Decent Work and Economic Growth	Jobs Generated	5 employments	23 employees

13 – Climate Action	Emission Reduction	262,814 VERs (annual) 565,230 VERs (current period)	213,038 VERs
---------------------	--------------------	---	--------------

Verification Summary

ENVIANCE SERVICES PRIVATE LIMITED (hereafter referred to as Enviance) has been contracted by ITC-KA Enerji Üretim San. ve Tic. A.Ş. to perform the 2nd verification of the 2nd crediting period of “Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project” (Ref. No. GS 1068¹) applying the methodology ACM0001, version 19.0^{/20/}.

The management of ITC-KA Enerji Üretim San. ve Tic. A.Ş. is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and onsite audit has been conducted to verify the data submitted in the monitoring report. Enviance confirms the following have been reviewed:

- The registered PDD including the monitoring plan^{/3/};
- Monitoring report(s)^{/1/}
- The applied monitoring methodology^{/20/};
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board;
- GS4GG guideline and related Annex^{/27/28/}.
- All information and references relevant to the project activity’s resulting in emission reductions.

ITC-KA Enerji Üretim San. ve Tic. A.Ş. is the promoter of the project activity and involves the collection and utilization of landfill gas (LFG) from the Bursa-Hamitler Landfill area for electricity generation, with a total installed capacity of 9.8 MW using GE Jenbacher gas engines^{/5/}. Electricity generated from the project activity is exported to the Turkish national grid^{/6/}. As per the GS4GG PDD^{/3/}, the project activity is estimated to reduce anthropogenic GHG emissions by approximately 565,230 tCO₂e for the current monitoring period, while displacing approximately 147,349.04 MWh of electricity for the current monitoring period. The actual achievement of the emission reduction of this current monitoring period is 213,038 tCO₂e^{/2/}, while displacing 45,595.04 MWh of electricity^{/7/}. The main reason for the significant discrepancy between the estimated amount and the actual amount is as follows:

- Since 2019, the volume of waste delivered to the landfill has steadily declined. This downward trend is mainly attributed to the municipality’s waste diversion initiatives, which have reduced the amount of MSW transported to the landfill. As of 01.01.2020, waste deliveries to the designated landfill have been halted. Nevertheless, to maintain the continuity and long-term sustainability of the project, waste acceptance at the site may be reinstated in the future if considered necessary. The signed declaration regarding the discontinuation of waste receipt is provided to VVB^{/17/}.

The project activity was commissioned in three phases^{/5/}:

Date	Commissioning
19/05/2012	5 gas engines
27/07/2012	1 gas engine
07/09/2012	1 gas engine

The monitoring of emission reduction and sustainable development indicators has been carried out in accordance to respective registered PDD^{/3/}.

¹ <https://registry.goldstandard.org/projects/details/53>

Enviance confirms that the project is implemented in accordance with the validated and registered PDD. The monitoring plan complies with the applied methodology ACM0001, Version 19.0 ^{/20/} and the GS4GG guideline the monitoring has been carried out in accordance with the monitoring plan. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Enviance confirms that the implementation of the project has resulted in 213,038 tCO₂e emission reductions during period 01/08/2023 to 23/09/2025 (Both days included) ^{/2/}.

All CARs /CRs/ FARs raised during verification shall be resolved prior to submitting a request for issuance.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

Corrective and Review Notes

Corrective Action Requests (CARs)	09
Clarification Requests (CLs)	03
Forward Action Requests (FARs)	00

Team Members	Type of Resource ²
Lead Auditor: Ms. Öykü Yakupoğlu	ER
Auditor: N/A	-
Technical Expert: Ms. Öykü Yakupoğlu	ER
Technical Reviewer: Mr. Pankaj Kumar	IR

² IR (Internal Resource); ER (External Resource);

1. INTRODUCTION	7
1.1 Objective.....	7
1.2 Scope	7
1.3 Description of the project activity	8
2 Methodology	9
2.1 Appointment of the assessment team	9
2.2 Document review	11
2.3 On site assessment and follow up interviews	11
2.4 Quality of evidences	13
2.5 Reporting of findings	14
2.6 Independent review	14
3 VERIFICATION FINDINGS	14
3.1 FARs from Validation / Previous Verification	14
3.2 Project Implementation in accordance with the registered Project Design Document.....	14
3.3 Compliance of the Monitoring Plan with the Monitoring Methodology.....	20
3.4 Completeness of Monitoring	20
3.5 SDG Outcomes Monitoring	46
3.6 Summary of ex-post values of each SDG outcome for the current monitoring period	46
3.7 Comparison of actual value of outcomes with estimates in approved GS PDD	46
3.8 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions	47
3.9 Management and Operational System	49
4 Reference	50
5 Final verification statement	51
Appendix.....	54
Appendix 1: Corrective Action Request/Clarification Request/Forward Action Request resolution table	54
Appendix 2: Abbreviations	60
Appendix 3: Audit Team CVs.....	61

1. INTRODUCTION

1.1 Objective

ENVIANCE SERVICES PRIVATE LIMITED (hereafter referred to as Enviance) has been contracted by ITC-KA Enerji Üretim San. ve Tic. A.Ş. to perform the 2nd verification of the 2nd crediting period of “Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project” (Ref. No. GS 1068) applying the methodology ACM0001, version 19.0 ^{/20/} and GS4GG guideline ^{/27/ /28/}. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard VERs.

1. The objective of the verification work is to assess the compliance with the requirements of paragraph 62 of the CDM Modalities and Procedures as well as the GS4GG guidelines and relevant Principles and Requirements. According to this assessment Enviance shall:

- Ensure that the project activity has been implemented and operated as per the registered PDD ^{/3/} and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- Ensure that the published MR ^{/1/} and other supporting documents provided are complete, verifiable and in accordance with applicable CDM VVS for project activities version 03.0 for the project activity and Gold Standard i.e. GS4GG requirements ^{/27/ /28/};
- Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology ^{/20/};
- Evaluate the data recorded and stored as per the ACM0001, version 19.0 ^{/20/}.

1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the VVB. The verification is based on the submitted monitoring report ^{/1/}, GS PDD ^{/3/}, the applied monitoring methodology ^{/20/}, relevant decisions, clarifications and guidance from the CMP and the EB, GS4GG guidelines ^{/27/ /28/} and any other information and references relevant to the project activity’s resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures, GS4GG guideline and relevant Principles and Requirements, as well as their related rules and guidance.

Based on the requirements in the CDM VVS for project activities, version 03.0 for the project activity as well as the GS4GG guideline, Enviance has applied a risk-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of sustainable parameters.

The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

1.3 Description of the project activity

“Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project” is operated by “ITC-KA Enerji Üretim San. ve Tic. A.Ş.” as per the official documents such as the commissioning certificates of the gas engines ^{/5/} and the generation license ^{/6/}. The project activity is located in Osmangazi District, Bursa Province, Turkey ^{/6/}. The purpose of the project activity is to enhance municipal solid waste management by recovering landfill gas (LFG) generated at the Hamitler Landfill area and using it for the production of renewable and clean electricity and supplying it to the National Grid via the Bursa II TM transformer station.

Without this project, the landfill gas generated from municipal solid waste would have continued to be released into the atmosphere through anaerobic decomposition at the unmanaged landfill site, leading to direct methane emissions without any recovery system in place ^{/19/}.

Within the scope of the project, the landfill received approximately 2,000 tonnes of municipal solid waste per day until 01/01/2020 ^{/3/}; however, waste acceptance has since been discontinued due to municipal waste diversion programs. Despite the cessation of waste input, the remaining waste mass in the landfill continues to generate landfill gas, which is collected through the installed gas extraction system.

The signed declaration regarding the discontinuation of waste receipt is provided to VVB ^{/17/}.

The current landfill gas generation level reflects the natural decline in LFG production following the discontinuation of waste receipt. Although the landfill was originally estimated to receive approximately 2,413 tonnes/day according to the PDD ^{/3/}, the present LFG availability is lower due to reduced waste input and aging waste layers. The operation of the landfill gas extraction system and engines is monitored continuously through SCADA system ^{/15/}. Key operational parameters such as methane concentration, temperature, pressure, and flow rate are regularly recorded to ensure stable and efficient LFG utilization.

The landfill gas produced is used to generate electricity by GE Jenbacher gas engines with a total installed capacity of 9.8 MW as per the commissioning certificates of the gas engines ^{/5/}. Following the reduction in LFG generation, four gas engines remain installed on site, of which two are operational and two are maintained as standby units ^{/17/}. If landfill gas production increases, additional gas engines may be operated; however, no such plans exist in the near future.

The commissioning dates and installed capacities of the gas engines have been confirmed via the commissioning certificates ^{/5/}. As per these documents, the commissioning dates of the gas engines are as follows:

Date	Commissioning
19/05/2012	5 gas engines
27/07/2012	1 gas engine
07/09/2012	1 gas engine

As per the GS4GG PDD ^{/3/}, the project activity is estimated to reduce anthropogenic GHG emissions by approximately 565,230 tCO₂e for the current monitoring period, while displacing approximately 147,349.04 MWh of electricity for the current monitoring period. The actual achievement of the emission reduction of this current monitoring period is 213,038 tCO₂e ^{/2/}, while displacing 45,595.04 MWh ^{/7/} of electricity.

2 Methodology

ENVIANCE SERVICES PRIVATE LIMITED (hereafter referred to as Enviance) approach to the verification is as follows:

- Conduct a strategic analysis
- Identify the potential risks associated with the project
- Check the GS specific requirements based on the GS specific checklist prepared by the Enviance.
- Out of identified Risks, mitigation activities are planned.
- Team performs the Control, Strategic and the Analytical testing output of which becomes inputs to the Evidence gathering plan.
- These Mitigation activities lead to the evidence gathering activities which becomes input to preparation of evidence gathering plan
- Based on the evidence gathering plan, a verification plan is prepared that includes Site visit schedule, Sampling plan and activities.
- A complete list of all documents and evidence material reviewed is included in this report below in Section 4.
- Once the Verification plan has been communicated, to the client, the assessment team conducts the site visit.
- Details of the onsite inspections have been provided in the below sections of this report.
- During this stage, any gaps regarding any specific requirements of the GS4GG programme, unresolved issues of desk review, any information management/material misstatements are recorded in the format for Resolution of Corrective Action and Clarification Requests and the same shall be submitted to client.
- All the identified non-conformities and their resolutions have been listed under Appendix 1 of this document.
- Once the final response is received Enviance works on the draft report.
- Once the draft report is completed. Enviance shall review the draft report prepared by the team making sure that the reviewer is independent of the verification of the claim
- Once TR is satisfied and he/she recommends his/her approval to the Director for final approval.
- Director signs and approves the Verification report that includes the Verification opinion. After confirmation of the project participant, relevant documents are submitted to GS4GG through the GS4GG web-platform.

2.1 Appointment of the assessment team

For the appointment of the assessment team, we followed the organization's standard procedure to ensure competence, impartiality, and compliance with the applicable GHG programme requirements.

- **Project Requirements Review:** We reviewed the project details, including the project identification number, location, scope of activity, GHG programme followed, and client-specific requirements to understand the technical and operational needs of the assignment.
- **Competence Mapping:** Based on the internal competence matrix, we identified personnel who were qualified and experienced to meet the technical requirements of the project.
- **Team Nomination:** Suitable team members were nominated for the roles of **Team Leader (Lead Auditor)**, **Team Member(s)**, **Technical Expert(s)** (if required), and **Independent Technical Reviewer**.
- **Availability and No CoI Confirmation:** The **Team Availability & No Conflict of Interest (CoI) Confirmation Form** was circulated to all nominated members. Each team member confirmed

their availability and declared the absence of any conflict of interest with the client or the project activity.

- **Approval of the Team:** The nominated team composition, along with the signed forms, was reviewed and approved by the designated approver to finalize the team.
- **Client Communication:** The **Team Intimation & Change Request Form** was shared with the client/responsible entity. The client was to acknowledge or raise any objections to the proposed team. No objections were received, and the team was deemed accepted.

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Host Country Experience	Role	Financial Aspect	SS Coverage	TE Coverage
Ms. Öykü Yakupoğlu	Yes	LA/TE	Yes	Yes	Yes
Mr. Vipul Jain	Yes	VV/TE in Trainee	Yes	Yes	Yes
Mr. Aniket Kumar	Yes	VV in Trainee	Yes	Yes	Yes
Ms. Tanu Yadav	Yes	VV in Trainee/TE in Trainee	Yes	Yes	Yes
Mr. Prakhar Shastri	Yes	VV in Trainee/TE in Trainee	Yes	Yes	Yes
Mr. Aiyappa N P	Yes	VV in Trainee	Yes	Yes	Yes
Ms. Ritu Singh	Yes	TE in Trainee	Yes	Yes	Yes
Mr. Pankaj Kumar	Yes	TR	Yes	Yes	Yes

2.2 Document review

The Monitoring Report version 01 ^{/1/} was submitted to VVB before the verification activities started. The MR was assessed based on all the relevant documents. The aim of the assessment in the desk review was to:

- Verify the completeness of the data and the information presented in the MR;
 - Check the compliance of the MR with respect to the monitoring plan depicted in the registered GS PDD ^{/3/} and verify that the applied methodology was carried out. Particular attention of the power plant was checked by the assessment team.
 - Evaluate the data to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.
- Please check section 4 of this report for detail of the documents checked.

2.3 On site assessment and follow up interviews

Interviewed Personnel	Functions	Organization
Emrah Baydun	Compliance Management Engineer	ITC-KA Enerji
Hüseyin Bozkurt	Sustainability and Project Preparation Engineer	ITC-KA Enerji
Olca Yılmaz	Plant Manager	ITC-KA Enerji
Nazire Nur Gür	Consultant	Life Climate

Nursel Şahintürk	Mukhtar	Yenibağlar Village
Ali Yılmaz	Local Stakeholder	Fatih Sultan Mehmet Village
Ömer Aksu	Local Stakeholder	Fatih Sultan Mehmet Village
Zeynep Güdük	Local Stakeholder	Yenibağlar Village

As referred above, the objective of the site visit assessment was to verify the following issues:

Confirm the implementation and operation of the project in line with GS4GG PDD ^{/3/}:

- The project activity is implemented as per the registered GS4GG PDD ^{/3/} and there is no change in design of the project activity since commissioning. Since 2019, the volume of waste delivered to the landfill has steadily declined. This downward trend is mainly attributed to the municipality's waste diversion initiatives, which have reduced the amount of MSW transported to the landfill. As of 01.01.2020, waste deliveries to the designated landfill have been halted. Nevertheless, to maintain the continuity and long-term sustainability of the project, waste acceptance at the site may be reinstated in the future if considered necessary. The signed declaration regarding the discontinuation of waste receipt is provided to VVB ^{/17/}. Same was confirmed during the on-site visit and further cross checked with commissioning certificates ^{/5/} and interviews with PP/Site in charge;
- Review the data flow for generating, aggregating and reporting the monitoring parameters;
- Electricity generation monitoring and billing procedures are followed at the project site in line with the state utility practice and are in line with the registered GS4GG PDD ^{/3/}. These were confirmed during the interviews with PP. The verification team also checked entire EPIAS records ^{/7/} for the project activity with the values provided in the ER sheet ^{/2/} for the calculations of the emission reductions;
- Confirm the correct implementation of procedures for operations and data collection;

During on-site visit and interviews with PP, it was confirmed that implementation of procedures for operations and data collection is in line with registered GS4GG PDD ^{/3/}. Service provider is responsible for the operations, maintenance as well as maintaining other technical data of the project activity. Performance and operation data of the project is controlled and maintained by O & M Services provider with online monitoring system through dedicated software and SCADA system ^{/15/} which provide operation status, break down on continuous basis;

- Cross-check the information provided in the MR documentation with other sources:
The information provided in the MR was crosschecked with the commissioning certificates, calibration certificates and meter reading forms ^{/8/} issued by TEIAS are used for cross-checking;
- Check the monitoring equipment against the requirements of the GS4GG PDD ^{/3/} and the approved methodology, including calibrations, maintenance, etc.:

Monitoring meters are checked with the Monthly Meter reading reports ^{/8/}, interviews with PP and calibration is checked with the calibration certificates issued by authorized third parties;

- Review the calculations and assumptions used to obtain the GHG data and ER ^{/2/}
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters:

During Physical site inspection and interviews with PP, it was confirmed that quality control and quality assurance procedures are in place. Metering arrangements & billing procedure is defined and controlled by TEIAS and PP do not have control on it. Assessment team checked all the monthly generation values which were crosschecked with the meter reading forms and found that emission reductions are calculated conservatively. Moreover, during interviews with locals and employees for project developer, verbal consent for disclosing private information, such as names of interviewees, technology users, Stakeholders on the Gold Standard Impact Registry have been obtained in line with

the requirement of 7.16.6.e of GS VVS, Version 2.0 ^{/28/}. Both versions of the verification report have been submitted, a complete confidential version containing the names of all stakeholders for Gold Standard records, and a public version with stakeholder names redacted in line with the requirement of Para 9.7.2 e, section 9.7 of GS4GG Validation and Verification Standard, Version 2.0 ^{/28/}.

Thus, to verify the implementation of project activity, onsite operation & maintenance, monitoring & management practices; assessment team has conducted interviews with onsite in-charge, O&M team and also had a detail discussion with the PP representative and reviewed third party statutory documents i.e. commissioning certificates, EPIAS records ^{/7/} covering monitoring period, meter reading forms ^{/8/} (for cross check of Net electricity supplied to the grid), training records ^{/14/}, Plant logbook/breakdown log, complaint/feedback register ^{/29/} and other relevant records.

Duration of Audit: 23/09/2025				
No.	Activity performed on-site	Site location	Date	Team member
1.	1) an assessment of the implementation and operation of the GS4GG project activity as per the PDD 2) a review of information flows for generating, aggregating and reporting of the monitoring parameters 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan 4) a cross-check between information provided in the MR and data from other sources 5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology 6) a review of calculations and assumptions made in determining the GHG data and ERs, and 7) an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters	Osmangazi District, Bursa Province, Turkey	23/09/2025	Ms. Öykü Yakupoğlu

2.4 Quality of evidences

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final Monitoring report, Version 04 ^{/1/}. Specific cross-checks have been done in

cases that further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology ^{/20/}.

2.5 Reporting of findings

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

Where a non-conformance arises the assessment team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;

- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The assessment team shall raise a Clarification Request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM/GS requirements have been met.

All CARs /CRs/ FARs raised during verification shall be resolved prior to submitting a request for issuance.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

Please refer Appendix 1 of this report. Total numbers of CARs: 09, CLs: 03, FARs: 00 from this verification.

2.6 Independent review

As a final step of verification, Enviance engages an independent expert to review the entire assessment conducted by the assessment team. This review includes all processes, from the contract review to the final report. Once the technical reviewer is satisfied, the report is approved and then forwarded to Enviance's management for the final signature.

3 VERIFICATION FINDINGS

3.1 FARs from Validation / Previous Verification

This is the 2nd Verification of the 2nd Crediting Period for the project activity. No FAR pending from the validation or previous verifications for this project.

3.2 Project Implementation in accordance with the registered Project Design Document

The project activity has been implemented as described in the registered GS4GG PDD ^{/3/}. The installed capacity of the project is 9.8 MW. The same has been verified during the on-site inspection and through commissioning certificates ^{/5/}. The verification team confirms that all physical features of the project

activity including data collecting system has been implemented in accordance with the validated GS4GG PDD ^{/3/}. The project activity has supplied electricity to the Turkish national grid ^{/6/}.

Within the scope of the project, the landfill received approximately 2,000 tonnes of municipal solid waste per day ^{/3/} until 01/01/2020; however, waste acceptance has since been discontinued due to municipal waste diversion programs. Despite the cessation of waste input, the remaining waste mass in the landfill continues to generate landfill gas, which is collected through the installed gas extraction system.

The signed declaration regarding the discontinuation of waste receipt is provided to VVB ^{/17/}.

ITC-KA Enerji Üretim San. ve Tic. A.Ş. has implemented the landfill gas collection and utilization project at the Hamitler Landfill Area located in Osmangazi District of Bursa Province in Turkey ^{/6/}.

The location details are provided below. Verification team has checked the locations of the project activity during the physical site visit using google map and found consistent with the registered GS4GG PDD ^{/3/}. Further, VVB verified the geo-coordinates during the on-site visit and observed coordinates are correctly provided.

Location details of the Project are: Latitude: 40°15'50.23"N, Longitude: 28°58'24.36" E

The technology employed by the Project Activity includes the generation of renewable electrical energy by harnessing landfill gas (LFG) for combustion in gas engines. Thus, this project actually displaces the electricity in the grid which is essentially fossil-fuel based to supply the generated electricity to the Turkish National Grid. The generation and consumption of electricity from the Project Activity is monitored continuously through the energy meters at project site & substations.

Technical specifications of the project activity provided in the section B.1 of the MR is found consistent with the registered GS PDD ^{/3/}. Same are confirmed during the on-site inspection, Manufacturer's specification and through commissioning certificates and found consistent with registered PDD ^{/3/}. Specifications of the gas engines are as follows ^{/5/}:

Manufacturer	Engine Type	Capacity (MWm / MWe)	Gas Volume (Full Load to Part Load)	Electrical Efficiency (Full Load to Part Load)
GE Jenbacher GmbH & Co OG	JGS 420 GS-B121	Electrical Generation Capacity - 1.400 MW Mechanical capacity - 1.427 MW	Full load - 755 Nm ³ /h Part Load - 583 / 410 Nm ³ /h	Full load 41.6 % Part Load - 40.4 / 38.1 %

VVB team verified that, no asset transfer has materialized for the project activity and the ownership remains with ITC-KA Enerji Üretim San. ve Tic. A.Ş., as confirmed through official project documentation and generation license ^{/6/}. All relevant documents have been shared with VVB.

The project activity was in normal operational during the monitoring period and the same has been confirmed during onsite audit interviews with PP and crosschecked from review of electricity generation

records submitted by PP, including TEIAS meter reading forms ^{/8/} and EPIAS records ^{/7/}. Power plant was working throughout the monitoring period and same have been confirmed from the monitored electricity generation values. No unusual activities observed during the monitoring period and plant was undergone scheduled as well as emergency maintenance as per the recommendation of the manufacturers. No major breakdown was observed for the current monitoring period and the same is confirmed by the assessment team with the electricity generation records ^{/7/} and plant log details.

The verification team has reviewed the commissioning certificates ^{/5/} & generation license ^{/6/} to conclude that the capacity of the project is same as mentioned in the registered GS PDD ^{/3/} and explained by PP during onsite audit interviews. The landfill gas produced is used to generate electricity by GE Jenbacher gas engines with a total installed capacity of 9.8 MW as per the commissioning certificates of the gas engines ^{/5/}. Following the reduction in LFG generation, four gas engines remain installed on site, of which two are operational and two are maintained as standby units ^{/17/}. If landfill gas production increases, additional gas engines may be operated; however, no such plans exist in the near future.

The plant is located in Bursa Province of Turkey ^{/6/}. Assessment team also checked the locations of the project activity in the registered PDD ^{/3/}. Thus, location provided in MR ^{/1/} are found in line with registered documents of the project activity.

The project is connected to the Turkish national grid (as per the grid structure of Turkey) and the same is found correct by the assessment team during the review of commissioning certificates ^{/5/}, generation license ^{/6/} and onsite audit interviews with PP representatives. The grid structure as mentioned in the PDD is still applicable for the project and ex-ante emission factor as in the PDD ^{/3/} is used for emission reduction calculation. Assessment team noted that the project activity has entered into the grid connection agreement with TEIAS. The electricity is fed into the Turkish national grid ^{/6/}. Thus, assessment team confirms that the project is implemented as per the registered PDD ^{/3/}. Based on interview with PP representative during the on-site inspection and review of commissioning certificates ^{/5/}, the verification team was able to confirm that the project implementation is in accordance with the project description contained in the registered GS4GG PDD ^{/3/}.

Assessment of actual emission reductions with the estimate emission reductions in PDD:

Estimated GS VERs (Emission Reductions) as per registered GS4GG PDD, version 13.7	As per registered GS4GG PDD (version 13.7) ^{/3/} , the ex-ante estimated GS VERs (emission reductions) for 365 days is 262,814 tCO ₂ e and for this monitoring period, total days are 785. Accordingly, the estimated GS VERs is 565,230 tCO ₂ e ^{/2/} . Hence, the estimated ex ante amount of GS VERs (emission reductions) for current monitoring period is 565,230 tCO ₂ e.
Actual GS VERs (Emission Reductions) for the monitoring period	213,038 tCO ₂ e ^{/2/}
Is any increase of GS VERs occurred?	The ex-ante value of GS VERs (emission reductions) during the current monitoring period are estimated to be 565,230 tCO ₂ e, whereas actual GS VERs (emission reductions) achieved are 213,038 tCO ₂ e (Rounded Down), which is 62% lower than the estimated GS VERs (emission reductions) ^{/2/} . Thus, there is no increase in GS VERs.
Reason for decrease of GS VERs	Although the landfill was originally estimated to receive approximately 2,413 tonnes/day according to the PDD ^{/3/}, the present LFG availability is lower due to reduced waste input and aging waste layers. The operation of the landfill gas extraction system and engines is monitored continuously through SCADA system ^{/15/}. Key operational parameters such as methane concentration, temperature, pressure, and flow rate are regularly recorded to ensure stable and efficient LFG utilization. The landfill gas produced is used to generate electricity by GE Jenbacher gas engines with a total installed capacity of 9.8 MW as per the commissioning certificates of the gas engines ^{/5/}. Following the reduction in LFG generation, four gas engines remain installed on site, of which two are operational and two are maintained as standby units ^{/17/}. If landfill gas production increases, additional gas engines may be operated; however, no such plans exist in the near future.

Assessment team also checked the metering details of the connected plant and found the same to be appropriate. Meter details were confirmed from the onsite audit and interviews with PP representatives, and calibration documents ^{/9/} submitted by PP.

Double counting issue has been assessed and the team has also checked the I-REC Registry (<https://evident.services/device-register>) and this project is not available within I-REC Registry database. Similarly, VCS project database (<https://registry.verra.org/app/search/VCS/All%20Projects>), GCC project database (https://projects.globalcarboncouncil.com/pages/submitted_projects), ICR project database (<https://www.carbonregistry.com/projects>), BCR project database (<https://globalcarbontrace.io/projects>) and CerCarbono project database (<https://www.ecoregistry.io/projects-list/cercarbono-co2>) were checked and this project is not available within those projects' databases, either. Given that CDM projects are not applicable in Turkey and the project does not appear on domestic REC scheme, I-REC, VCS, GCC, ICR, BCR and Cercarbono registries, it could be confirmed that no RECs and other VER carbon credits are being issued for the project at the time of this verification. Furthermore, as a host country in Turkey such any programme

like a government-regulated system or programme for the constraint and monetization of GHG emissions (such as emissions trading scheme, cap and trade or carbon tax mechanisms) has not been implemented.

Moreover, PP has submitted declaration for no double counting dated 08/10/2025 ^{/16/}.

PP has updated the last date of the annual report dated 18/12/2025 ^{/31/} on the monitoring report cover page which is being submitted for the period 04/11/2022 – 30/09/2023.

Grievance Mechanism:

During the interviews with PP, the verification team confirmed that there is a grievance register with contact details at the project site office and are accessible to local stakeholders ^{/29/}. Verification team has checked the grievance register during the physical site visit and found that there are no grievances registered by the local stakeholders during the current monitoring period.

It was further, observed that local people are happy with the implementation of the project activity as it entrusts employment and improve living standard of local people and villagers and income generation activates same is verified during the onsite interviews.

Materiality adopted in Verification:

Consideration of materiality in planning the verification

No.	Risk that would lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk levels	Justification	
1	Human errors: Readings from Meters (if not automatic)	LOW	Human error is likely to occur if the monitoring personnel are not trained well or inexperienced in data recording procedures and monitoring process	All the personal are well trained to monitor and collect data and thus risk associated with Human error is minimized. Assessment team checked the training records to confirm that all the personal are well trained to handle the activities related to monitoring. Assessment team checked the training records ^{/14/} for the complete monitoring period and confirm that the personal are well trained to monitor and collect data for the project activity.

2	Human error: Quantification of emission reduction	LOW	Use of spread sheets without adequate data control, changes/updates, version tracking, traceability and security	All the energy statement i.e., monthly TEIAS meter reading forms ^{/8/} and the EPIAS records ^{/7/} for the complete monitoring period are checked and thus the assessment team confirms that the ER value is conservative and correct.
---	---	-----	--	--

Consideration of materiality in conducting the verification

In line with Guidelines for Materiality Threshold para (9.6.3) of Validation-and-Verification-Standard version 2.0 ^{/28/} in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet ^{/2/}. It follows the paper trail back to the raw data such as meter reading records and invoices.

Emission Reductions (tCO ₂ e)/year	500,000 or more	300,000 to 500,000	300,000 or less	Micro Scale projects
Materiality Threshold para (9.6.3) of Validation-and-Verification-Standard version 2.0	0.5%	1.0%	2.0%	10.0%

The applicable materiality threshold is 2.0% for project activity as achieved ERs which were less than 300,000 tCO₂e/year as per requirement of V2.0_PAR_Validation-and-Verification-Standard ^{/28/}.

Particulars / Monitoring Report	MR Version (Initial) ^{/1/}	MR Version (Revised/Final) ^{/1/}
Emission Reductions Achieved (tCO ₂ e) in this monitoring period	188,682 tCO ₂ e	213,038 tCO ₂ e
Applicable Threshold (%) as per para 9.6.3 of Validation-and-Verification-Standard version 2.0	2.0%	2.0%

The verification team has identified the impact of errors observed and those were corrected by PP during verification for all monitoring parameters at the individual level. There are no material errors, overestimation of ER, omission, or misstatement.

In summary, verification team confirms that actual emission reductions are lower than the estimates as per GS4GG PDD ^{/3/} for the current monitoring period.

Verification team considers the project and monitoring description of the project contained in the Monitoring report to be complete and accurate. The Monitoring report ^{/1/} complies with the relevant

methodology ^{/20/}, tools ^{/21/ /22/ /23/ /24/ /25/ /26/}, forms and guidance which are in line with that available in the registered documents (including GS4GG PDD ^{/3/}) with Gold Standard.

Opinion:

- a) In opinion of the verification team, the implementation and operation of the project activity is in compliance with the description in the GS4GG PDD version 13.7 ^{/3/}.
- b) There is no revision in monitoring plan or post registration change for the current monitoring period.
- c) The actual emission reductions for the current monitoring period are 213,038 tCO₂e which are lower than the estimated ERs (565,230 tCO₂e) for the comparable period ^{/2/}. The main reason for the significant discrepancy between the estimated amount and the actual amount is as follows: Since 2019, the volume of waste delivered to the landfill has steadily declined. This downward trend is mainly attributed to the municipality's waste diversion initiatives, which have reduced the amount of MSW transported to the landfill. As of 01.01.2020, waste deliveries to the designated landfill have been halted. Nevertheless, to maintain the continuity and long-term sustainability of the project, waste acceptance at the site may be reinstated in the future if considered necessary. The signed declaration regarding the discontinuation of waste receipt is provided to VVB ^{/17/}.

3.3 Compliance of the Monitoring Plan with the Monitoring Methodology

The verification team is able to confirm that the monitoring plan and the monitoring system implemented are in compliance to the applied monitoring methodology ACM0001, version 19.0 ^{/20/}. All other requirements of the applied methodology are met.

During the verification all relevant monitoring parameters (as listed in the GS4GG PDD ^{/3/}) have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures.

Opinion:

The monitoring plan mentioned in the GS PDD ^{/3/} is in line with the applied methodology i.e. ACM0001, Version 19.0 ^{/20/}. The monitoring mechanism is in line with the methodology and is effective and reliable.

3.4 Completeness of Monitoring

The monitoring has been carried out in accordance with the monitoring plan contained in the PDD. During the course of verification, all relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement / determination method and applied QA/QC procedures. It is confirmed that the monitoring parameters have been measured / determined without material misstatements.

The verification team reviewed the actual monitoring during the site visit and from document review and compared it against the requirements of the monitoring plan in the GS4GG PDD ^{/3/} and found in line.

The verification team assessed the monitoring techniques and each monitoring value in the monitoring report; and provided a short summary on the verification of every parameter listed in the monitoring plan and used for calculation of emission reductions.

a. Data and parameters fixed ex ante or at renewable of crediting period

OX_{top_layer} , GWP_{CH_4} , η_{PJ} , R_u , MM_{CH_4} , $\phi_{default}$, OX , F , $DOC_{f,default}$, $MCF_{default}$, DOC_j , k_j , $EG_{m,y}$, $FC_{i,y}$, $NCV_{i,y}$, $EF_{CO_2,i,y}$, $\eta_{m,y}$ and $EF_{grid,CM,y}$ were mentioned as ex-ante fixed parameter.

The ex-ante values for OX_{top_layer} , GWP_{CH_4} , η_{PJ} , R_u , MM_{CH_4} , $\phi_{default}$, OX , F , $DOC_{f,default}$, $MCF_{default}$, DOC_j , k_j , $EG_{m,y}$, $FC_{i,y}$, $NCV_{i,y}$, $EF_{CO_2,i,y}$, $\eta_{m,y}$ and $EF_{grid,CM,y}$ were considered for calculation of emission reductions are consistent with the registered GS4GG PDD.

The value of combined margin in Turkey is estimated using the emission factor published by the Ministry of Energy and Natural Resources in the “Turkey National Grid Emission Factor Data Sheet”³, calculated in accordance with the “Tool to calculate the emission factor for an electricity system” version 07.0^{/24/}, and thus verification team concludes that the value is correct and appropriate. The default values in turn are used for baseline calculation as per the formula given in the registered GS4GG PDD^{/3/} for the current monitoring period. Verification team checked the values, source of data, choice of data, purpose of the data mentioned in the MR from the registered GS4GG PDD and confirms that the similar approach was considered for the current monitoring period also.

The relevant Emission factor values used for emission reduction calculation are given below. Also, as GS4GG “Principles and Requirements”, ex-ante fixed parameters are now connected to relevant SDG indicator which is acceptable to the assessment team.

$EF_{grid,CM,y}$ - Relevant SDG Indicator= SDG13: Climate Action= 0.4616 tCO₂e/MWh^{/3/}

The applied ex-ante data/parameters are in line with the registered PDD^{/3/} thus acceptable to VVB:

Data/ parameter	Unit	Value applied	Evidence
OX_{top_layer} (Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline)	Dimensionless	0.1	ACM0001, v19.0 ^{/20/}
GWP_{CH_4} (Global Warming Potential of CH ₄)	tCO ₂ e/tCH ₄	28	IPCC Fifth Assessment Report ^{/32/}

3

https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klm/%C4%B0klmDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFkt r/Belgeler/2019_Sebeke_EF.pdf

η_{PJ} (Efficiency of the LFG capture system that will be installed in the project activity)	Percentage	50	ACM0001, v19.0 ^{/20/}	
R_u (Universal ideal gases constant)	Pa.m ³ /kmol.K	8.314	Tool 08, v03.0 ^{/25/}	
MM_{CH_4} (Molecular mass of CH ₄)	kg/kmol	16.04	Tool 08, v03.0 ^{/25/}	
$\phi_{default}$ (Default value for the model correction factor to account for model uncertainties)	Dimensionless	0.75	Tool 04, v08.1 ^{/22/}	
OX (Oxidation factor (reflecting the amount of methane from SWDS that is oxidized in the soil or other material covering the waste))	Dimensionless	0.1	Tool 04, v08.1 ^{/22/}	
F (Fraction of methane in the SWDS gas)	Dimensionless	0.5	IPCC Guidelines ^{/33/} 2006	
$DOC_{f,default}$ (Default value for the fraction of degradable organic carbon (DOC) in MSW that can decompose in the SWDS)	Weight fraction	0.5	IPCC Guidelines ^{/33/} 2006	
$MCF_{default}$ (Methane correction factor)	Dimensionless	0.8	IPCC Guidelines ^{/33/} 2006	
DOC_j (Fraction of degradable organic carbon in waste type j)	Percentage	Wood and wood products	43	IPCC Guidelines for National Greenhouse Gas Inventories (adapted from Volume 5,

		ducts		Table 2.4 and Table 2.5) ^{/33/}
		Pulp, paper and cardboard	40	
		Food, food waste, beverages and tobacco	15	
		Textiles	24	
		Garden, yard and park waste	20	
		Glass, plastic, metal, other inert	0	
k_j (Decay rate for the waste type j)	1/yr	Pulp, paper, cardboard (other	0.06	IPCC 2006 Guidelines for National Greenhouse Gas Inventories (Volume 5, Table 3.3) ^{/33/}

		tha n slud ge), texti les		
		Wo od, woo d pro duc ts and stra w	0.03	
		Oth er (no n- foo d) orga nic putr esci ble gard en and park was te	0.10	
		Foo d, foo d was te, sew age slud ge, bev erag es and tob acc o	0.18 5	

EG _{m,y} (Net electricity generated by power plant/unit m)	MWh				https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri
		N	2	2	
		a	0	0	
		t	1	1	
		u	0	1	
FC _{i,y} (Amount of fossil fuel type i consumed in the project electricity system by generation sources in year y)	m ³ / tonnes (m ³ for gaseous fuels)	l	1	1	https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri
		g	2,	2,	
		n	7	3	
		i	8	1	
		t	7,	6,	
			0	2	
			0	6	
			8	4	
		C	1	0	
		o	5		
		a	5,		
			5		
			9		
			3		
		F	9,	4,	
		u	0	3	
		e	8	2	
		O	0,	0,	
		i	0	0	
		l	0	0	
			0	0	
			0	0	
			0	0	
			0	0	
			0	0	
			2	2	https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri
			0	0	
			0	1	
			9	0	
			0	1	
		N	2	2	
		a	0	1	
		t	,	,	
		u	9	7	
		r	7	8	
		a	8	3	
		l	,	,	
		G	0	4	
		a	4	1	
		s	0	4	
		L	6	5	
		i	3	6	
		g	,	,	
		n	6	6	
		i	2	8	
		t	0	9	
		e	,	,	
			1	3	

			7 7	9 2	1 0	
		C o a l	6 , 6 2 1 , 1 7 7	7 , 4 1 9 , 7 0 3	1 , 5 7 4 , 4 3 4	
		F u e l O il	1 , 7 8 3 , 3 6 6	9 2 5 , 2 7 6	5 4 6 , 6 5 5	
NCV _{i,y} (Net calorific value (energy content) of fossil fuel type i in year y)	GJ/tonnes (m ³ for gaseous fuels)		2 0 0 9	2 0 1 0	2 0 1 1	https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri
		N a t u r a l G a s	3 7 . 1 7 7	3 7 . 3 8 2	3 7 . 1 0 0	
		L i g n i t e	6 . 4 2 7	7 . 1 3 1	7 . 2 9 8	
		C o a l	2 2 . 2 1 5	2 2 . 3 1 6	2 2 . 7 9 4	
		F u e l	4 0 . 0	4 0 . 2	4 1 . 6	

		O il	9 1	0 1	2 8	
EF _{CO₂,i,y} (CO ₂ emission factor of fuel type i in power unit in year y)	tCO ₂ /GJ	Nat ural Gas	0.05 40	https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf		
		Lign ite	0.09 09			
		Coa l	0.09 46			
		Fuel Oil	0.07 26			
η _{m,y} (Average net energy conversion efficiency of power unit m in year y)	Percentage	Na tur al Gas	IP CC def aul t val ue of 60 % for co mb ine d cycl e	“Tool to calculate the emission factor for an electricity system” version 07.0.0 ^{/24/}		
		Lign ite	IP CC def aul t val ue of 45 % for Su per crit ica l IPC C defa ult valu e of 41.4 % for			

			PFB S	
		Coal	IP CC default value of 45 % for Super critical IPC C default value of 41.4 % for PFB S	
		Fuel Oil	IP CC default value of 46 % for combined cycle	
EF _{grid,CM,y} (Combined margin CO ₂ emission factor for the project electricity system in year y)	tCO ₂ /MWh	0.4616		The Ministry of Energy and Natural Resources has published the Operating and Build Margin Emission

			Factors for Turkish National Grid ⁴ “Tool to calculate the emission factor for an electricity system” version 07.0.0 ^{/24/}
--	--	--	--

b. Data and parameters monitored

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts	
Data/parameter:	Op _{j,h}	
Unit	hour	
Description	Operation of the equipment that consumes the LFG	
Means of verification:	The operating hours of the gas engines were verified through multiple consistent sources of evidence. The project owner maintains shift-based operational logs in which the accumulated operating hours of each engine are recorded at least once per shift ^{/15/} . These records were cross-checked against the electricity generation data ^{/7/} obtained from the electricity meters, ensuring consistency between engine operation and actual electricity export to the grid. Furthermore, the hour counters installed on each gas engine were physically inspected during the site visit, confirming that the recorded operating hours align with the monitoring data reported in the MR ^{/1/} . No discrepancies were observed between logbooks, engine hour counters, and electricity generation records, demonstrating that the monitoring of Op _{j,h} is accurate, complete, and in line with ACM0001 ^{/20/} and the project’s approved Monitoring Plan.	
Source of data checked by the assessment team	The assessment team reviewed the shift-based operation logs maintained by the project operator, the engine hour-counter readings observed during the site visit, and the EPIAS records ^{/7/} used for monthly electricity export protocols.	
Value(s) of monitored parameter	Vintage	Op _{j,h} (h)
	01/08/2023 – 31/12/2023	10,680
	01/01/2024 – 31/12/2024	19,756

4

https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klm/%C4%B0klmDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFkt r/Belgeler/2019_Sebeke_EF.pdf

	01/01/2025 – 23/09/2025	11,967
	Total	42,403
Measuring/reading/recording frequency:	The project operator performs manual readings and records the accumulated operating hours once every shift, following the plant's three-shift (24-hour) operational structure. These shift-based records are consolidated into monthly logs and used as the basis for the annual operating hour totals	
QA/QC procedures:	Shift supervisors are responsible for ensuring that the hour-counter readings are taken accurately at each shift change and recorded in the official operation logbook. Recorded values are cross checked with electricity generation data to identify any inconsistencies between engine operation and energy output. Any deviations or abnormal variations trigger an internal review by the plant's technical team.	
Cross Checks	The recorded operating hours were cross checked against multiple independent data sources to ensure completeness and consistency. First, the shift logbook entries were compared with the hour-counter readings physically inspected on each gas engine during the on-site visit. Second, the assessment team cross verified the reported operating hours with the main meter electricity export data for the corresponding periods, ensuring that engine operation logically aligned with the electricity generation patterns.	

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts
Data/parameter:	Management of SWDS
Unit	Dimensionless
Description	Management of SWDS
Means of verification:	Historical photographs ^{/18/} and documentation provided in the monitoring report were reviewed to confirm the transition from an uncontrolled dumpsite to a rehabilitated landfill equipped with an LFG extraction system. During the site visit, the team conducted a physical inspection of the landfill surface, observing the presence of final cover layers, gas extraction wells, drainage systems, and the absence of any waste placement activities, consistent with the claim that waste reception stopped as of 01/01/2020 ^{/17/} . Interviews with the plant operator and municipal representatives further

	confirmed that no operational changes have occurred that would artificially enhance methane generation.
Source of data checked by the assessment team	The assessment team reviewed multiple sources of evidence to verify the management condition of the SWDS. These included historical and current photographs ^{/18/} of the landfill surface, documentation within the monitoring report, the project design documentation, and municipal correspondence confirming (via the signed declaration dated 10/10/2025) the cessation of waste disposal as of 01/01/2020 ^{/17/} .
Value(s) of monitored parameter	N/A
Measuring/reading/recording frequency:	The management status of the SWDS is assessed on an annual basis, in line with the monitoring requirements of ACM0001 ^{/20/} and the project's approved Monitoring Plan ^{/3/} .
QA/QC procedures:	Regular site inspections are conducted by the operational team to verify the integrity of the landfill cover, the condition of gas extraction wells, and the absence of waste placement activities.
Cross Checks	The assessment team compared the current site conditions observed during the physical inspection with the photographs and descriptions provided in the MR ^{/1/} . Also, municipal records and operator statements confirming the cessation of waste disposal were cross verified with on-site evidence showing the absence of recent waste layers and the presence of a stabilized cover.

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts
Data/parameter:	BE_{CH4,SWDS,y}
Unit	tCO ₂ e/y
Description	Amount of methane in the LFG that is generated from the SWDS in the baseline scenario in year y
Means of verification:	The assessment team verified the calculation of BE _{CH4,SWDS,y} by reviewing all input parameters and methodological steps applied in accordance with ACM0001, version 19.0 ^{/20/} and the Tool 04, version 08.1 ^{/22/} . The MR provides clear evidence of the values used for the monitoring parameters, all of which were checked for consistency with IPCC and methodological defaults ^{/20/ /33/} . The assessment team also reviewed the project's LFG flow measurements (V _{t,db}),

	methane concentration data ($v_{CH_4,t,db}$), and the operational hours of the gas engines, which determine the methane captured and utilized ($F_{CH_4,PJ,y}$). The landfill management status and cessation of waste disposal were confirmed through on-site audit and documentation, ensuring that baseline conditions were correctly represented. All methodological steps and data sources used for determining $BE_{CH_4,SWDS,y}$ were found to be consistent, transparent, and in line with approved methodology.											
Source of data checked by the assessment team	ACM0001, v19.0 ^{/20/}											
Value(s) of monitored parameter	<table><tr><th>Vintage</th><th>$BE_{CH_4,SWDS,y}$ (tCO₂e/y)</th></tr><tr><td>01/08/2023 – 31/12/2023</td><td>48,817</td></tr><tr><td>01/01/2024 – 31/12/2024</td><td>89,791</td></tr><tr><td>01/01/2025 – 23/09/2025</td><td>51,066</td></tr><tr><td>Total</td><td>189,674</td></tr></table>		Vintage	$BE_{CH_4,SWDS,y}$ (tCO ₂ e/y)	01/08/2023 – 31/12/2023	48,817	01/01/2024 – 31/12/2024	89,791	01/01/2025 – 23/09/2025	51,066	Total	189,674
Vintage	$BE_{CH_4,SWDS,y}$ (tCO ₂ e/y)											
01/08/2023 – 31/12/2023	48,817											
01/01/2024 – 31/12/2024	89,791											
01/01/2025 – 23/09/2025	51,066											
Total	189,674											
Measuring/reading/recording frequency:	$BE_{CH_4,SWDS,y}$ is calculated ex-post based on the annually aggregated values derived from continuously monitored parameters such as landfill gas flow ($V_{t,db}$), methane concentration ($v_{CH_4,t,db}$), temperature data, and the operating hours of the gas engines.											
QA/QC procedures:	The calculation of $BE_{CH_4,SWDS,y}$ relies on both ex-ante methodological parameters and ex-post project data. For the ex-ante parameters, QA/QC is ensured by applying the official default values prescribed in the applied methodology, tools and IPCC 2006 Guidelines ^{/33/} , which minimizes uncertainty and eliminates operator influence. For ex-post data, values are gathered from calibrated monitoring equipment that undergo periodic maintenance and calibration in accordance with national regulations.											
Cross Checks	The LFG volumetric flow measurements and methane concentration values were cross verified against calibration certificates, raw data logs, and on-site visit observations. Engine operating hours, which determine whether methane destruction is eligible for crediting, were cross checked with EPIAS electricity export data ^{/7/} , shift logbooks, and engine hour counters to ensure consistency. The cessation of waste disposal and the management status of the SWDS were validated through municipal confirmation, on-site inspection, and photographic evidence to ensure alignment with the baseline scenario applied. No inconsistencies were observed between the reported values, methodological defaults,											

	and on-site evidence, confirming the robustness and reliability of the $BE_{CH_4,SWDS,y}$ determination.
--	--

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts														
Data/parameter:	V _{t,db}														
Unit	m³ dry gas/h														
Description	Volumetric flow of the gaseous stream in time interval t on a dry basis														
Means of verification:	The assessment team verified the monitored values of V _{t,db} through a detailed review of the raw flow meter data, calibration certificates of the flow meter, and on-site observations. The project activity uses a continuously operating, calibrated ABB flow meter ^{/10/} that records the volumetric flow of landfill gas on a dry basis. During the on-site visit, the assessment team inspected the physical installation of the flow meter, confirmed its serial number and calibration status, and examined the data acquisition system that stores continuous flow readings.														
Source of data checked by the assessment team	The calibrated ABB flow meter: <table><tr><th>Brand</th><th>Type</th><th>Serial No</th><th>Latest Calibration Date</th><th>Calibration Due Date</th></tr><tr><td>ABB</td><td>266DSHB S HA1A1E1</td><td>3K64661100941 2</td><td>29/11/2022</td><td>28/11/2032</td></tr></table>					Brand	Type	Serial No	Latest Calibration Date	Calibration Due Date	ABB	266DSHB S HA1A1E1	3K64661100941 2	29/11/2022	28/11/2032
Brand	Type	Serial No	Latest Calibration Date	Calibration Due Date											
ABB	266DSHB S HA1A1E1	3K64661100941 2	29/11/2022	28/11/2032											
Value(s) of monitored parameter	<table><tr><th>Vintage</th><th>V_{t,db} (m³)</th></tr><tr><td>01/08/2023 – 31/12/2023</td><td>6,036,107.21</td></tr><tr><td>01/01/2024 – 31/12/2024</td><td>11,114,155.60</td></tr><tr><td>01/01/2025 – 23/09/2025</td><td>6,193,803.96</td></tr><tr><td>Total</td><td>23,344,066.77</td></tr></table>					Vintage	V _{t,db} (m³)	01/08/2023 – 31/12/2023	6,036,107.21	01/01/2024 – 31/12/2024	11,114,155.60	01/01/2025 – 23/09/2025	6,193,803.96	Total	23,344,066.77
Vintage	V _{t,db} (m³)														
01/08/2023 – 31/12/2023	6,036,107.21														
01/01/2024 – 31/12/2024	11,114,155.60														
01/01/2025 – 23/09/2025	6,193,803.96														
Total	23,344,066.77														
Measuring/reading/recording frequency:	The volumetric flow of landfill gas is measured continuously by the installed flow meter operating on a dry-basis measurement principle. The flow data are automatically recorded by the plant’s data acquisition system (SCADA) ^{/15/} . These continuous readings are														

	stored electronically and subsequently consolidated by the project operator on a monthly basis.
QA/QC procedures:	The volumetric flow measurements are obtained from a calibrated ABB flow meter ^{/10/} that operates under a defined maintenance and quality assurance regime. The flow meter is subject to periodic calibration in accordance with national regulations, with calibration certificates reviewed by the assessment team to confirm validity and traceability.
Cross Checks	The flow meter readings were compared with methane concentration data and engine operation hours to ensure that the captured gas volumes were consistent with electricity generation patterns.

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts					
Data/parameter:	$V_{CH_4,t,db}$					
Unit	$m^3 CH_4/m^3$ dry gas					
Description	Volumetric fraction of CH_4 in a time interval t on a dry basis					
Means of verification:	The assessment team verified the monitored methane concentration values through a detailed review of raw gas analyzer data ^{/15/} , calibration records ^{/11/} , and on-site inspection of the installed analyzers. The project utilizes continuously operating SIEMENS Ultramat 23 gas analyzers, which measure methane concentration on a dry basis. During the site visit, the assessment team visually inspected the analyzers, confirmed their serial numbers and calibration validity.					
Source of data checked by the assessment team	The calibrated SIEMENS Ultramat 23 gas analyzers:					
	Brand	Type	Equipment Replacement Dates ⁵	Serial No	Calibration Dates	Calibration Due Date ⁶ (10-year period)
	SIEMENS	Ultramat 23	02/10/2024	N1H8919	27/04/2022	29/09/2034

⁵ Two identical gas analyzers (Serial Nos. N1H8919 and N1H9436) are used in rotation to maintain continuous monitoring and facilitate more frequent calibration. Each unit is periodically taken offline for calibration and returned to operation afterward. This arrangement has allowed gas measurements to continue without interruption during the monitoring period, preventing data gaps while supporting shorter calibration intervals.

⁶ <https://www.resmigazete.gov.tr/eskiler/2013/12/20131212-5.htm>

					30/09/2024	
	SIEMENS	Ultramat 23	01/04/2024 21/07/2025	N1H9436	22/09/2023 18/07/2025	17/07/2035
Value(s) of monitored parameter	Vintage			V _{CH4,t,db} (m ³ CH ₄ / m ³ dry gas)		
	01/08/2023 – 31/12/2023			0.4790		
	01/01/2024 – 31/12/2024			0.4785		
	01/01/2025 – 23/09/2025			0.4883		
	Total			0.4819		
Measuring/reading/recording frequency:	The methane concentration of the landfill gas is measured continuously by the SIEMENS Ultramat 23 gas analyzers operating on a dry-basis principle ^{/11/} . The analyzers transmit real-time concentration data to the plant’s SCADA system ^{/15/} , where values are automatically logged. These continuous measurements are aggregated by the project operator on a monthly basis for internal review.					
QA/QC procedures:	The methane concentration measurements are obtained from calibrated SIEMENS Ultramat 23 gas analyzers, which operate under stringent QA/QC controls. The analyzers undergo periodic calibration in accordance with national regulations, including zero checks using inert gas and span checks using certified calibration gas mixtures. Calibration certificates ^{/11/} and due dates were reviewed by the assessment team and found to be valid throughout the monitoring period.					
Cross Checks	The monthly aggregated concentration data presented in the MR ^{/1/} were compared with raw SCADA logs ^{/15/} directly exported from the gas analyzer system. Also, the serial numbers and calibration certificates of the SIEMENS Ultramat 23 analyzers were physically verified during the site visit, confirming that the instruments used for monitoring were correctly identified and calibrated within the valid period.					

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts
Data/parameter:	T _t

Unit	K				
Description	Temperature of the gaseous stream in time interval t				
Means of verification:	The assessment team verified the monitored temperature values by reviewing raw temperature logs, calibration documentation ^{/12/} , and through direct on-site inspection of the temperature sensors installed in the LFG pipeline. During the site visit, the team confirmed the physical installation, serial numbers, and operational status of the ELIMKO and J&C temperature instruments.				
Source of data checked by the assessment team	The calibrated ELIMKO and J&C temperature instruments:				
	Brand	Type	Serial No	Latest Calibration Date	Calibration Due Date ⁷ (10-year period)
	ELIMKO / PT-100	11/3211 6T	(- 24/04/2023)& (08/09/2023-) ⁸	27/04/2022	26/04/2032
	J&C / OR03 – B1H09 – 15 ÜR1/2 ” NPT	1802-03180	24/04/2023-08/09/2023	17/11/2022	16/11/2032
	ELIMKO / RT30-1P06-20-U-W	11/32114T	(24/04/2023) & 08/09/2023-) ⁹	08/10/2024	08/10/2034
	ELIMKO / PT-100	22030580.011.01029 959	-	28/04/2025	27/04/2035

⁷ <https://www.resmigazete.gov.tr/eskiler/2013/12/20131212-5.htm>

⁸ This device ELIMKO with serial number of 11/32116T was replaced with J&C device with serial number of 1802-03180 on 24/04/2023 and J&C device was used until 08/09/2023 when the ELIMKO device with serial number of 11/32116T was installed back.

⁹ This device ELIMKO with serial number of 11/32114T was replaced with J&C device with serial number of 1309-10837 on 24/04/2023 and J&C device was used until 08/09/2023 when the ELIMKO device with serial number of 11/32114T was installed back

	J&C / OR03 – B1H0 9 – 15 ÜR1/2 ” NPT	1309-10837	24/04/2023- 08/09/2023	17/11/20 22	16/11/20 32
Value(s) of monitored parameter	Average: 303.45 K				
Measuring/reading/recording frequency:	The temperature of the landfill gas is measured continuously by the installed temperature sensors located in the LFG pipeline. The sensors transmit real-time temperature readings to the plant’s SCADA system ^{/15/} , where the data is automatically logged. These continuous measurements are consolidated on a monthly basis by the project operator.				
QA/QC procedures:	The temperature measurements are obtained from calibrated ELIMKO and J&C temperature instruments installed in the LFG pipeline, and these instruments are subject to strict QA/QC controls. Each sensor undergoes periodic calibration in accordance with national regulations, with calibration certificates confirming traceability and validity reviewed by the assessment team. The project operator performs routine operational checks to ensure stable performance.				
Cross Checks	The monthly consolidated temperature data presented in the MR were compared with raw SCADA logs ^{/15/} exported directly from the temperature monitoring system. Also, the calibration certificates and serial numbers of the ELIMKO and J&C sensors were physically verified during the site visit to ensure that the equipment used for monitoring was correctly identified, within valid calibration periods, and compliant with regulatory requirements.				

Relevant SDG	SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all
Data/parameter:	EG _{PJ,y}
Unit	MWh
Description	Amount of electricity generated using LFG by the project activity in year y
Means of verification:	The assessment team verified the monitored electricity generation values through a comprehensive review of EPIAS records ^{/7/} , monthly

	meter reading records ^{/8/} , and the raw meter data (from the SCADA system ^{/15/}) provided by the project owner. During the site visit, the team inspected the physical installation of the TEIAS-sealed bidirectional electricity meters and confirmed their serial numbers and calibration dates as reported in the MR. Because these meters are sealed and used for formal billing and settlement of electricity sales, they provide a reliable and accurate source of data. All reviewed evidence confirmed that electricity generation is measured continuously, recorded accurately, and fully aligned with the monitoring and reporting procedures included in the registered PDD.			
Source of data checked by the assessment team	The calibrated Landis + Gry and Makel electricity meters ^{/9/} :			
		Old Main Meter	New Main Meter	Back-up Meter
	Brand	Landis + Gry	Landis + Gry	Makel
	Type	ZG410CR-1040	ZG410CR-1040	C520.AMT.2556.RS48 5 R Role
	Serial No	50979650	20245117	80347877
	Calibration Date	24/12/2021	20/01/2024	04/08/2022
	Calibration Due Date	23/12/2031	19/01/2034	03/08/2032
	Date of Change	24/07/2025	-	-
Value(s) of monitored parameter	Vintage		EG _{PJ,y} (MWh)	
	01/08/2023 – 31/12/2023		11,793.78	
	01/01/2024 – 31/12/2024		22,131.67	
	01/01/2025 – 23/09/2025		11,669.59	
	Total		45,595.04	
Measuring/reading/recording frequency:	Electricity generation is measured continuously through the TEIAS-sealed bidirectional electricity meters installed at the grid connection point. The meter records are automatically logged and form the basis of EPIAS records ^{/7/} . Although the measurement itself is continuous, the readings are formally recorded and documented on a monthly basis as part of the settlement and invoicing process.			
QA/QC procedures:	The electricity generation data undergoes strict QA/QC controls due to the use of TEIAS-sealed electricity meters, which serve as the			

	official basis for electricity billing and grid settlement. Since the project owner cannot intervene with the meters, the risk of manipulation is inherently minimized. TEIAS performs periodic calibration and functionality checks in accordance with national metering regulations, and these calibration certificates were reviewed by the assessment team and found to be valid for the entire monitoring period.
Cross Checks	Monthly meter reading forms issued by TEIAS ^{/8/}

Relevant SDG	SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all																		
Data/parameter:	EG_{EC,y}																		
Unit	MWh																		
Description	Amount of electricity consumed by the project activity in year y																		
Means of verification:	The assessment team verified the monitored electricity consumption values by reviewing TEIAS electricity meter data (EPIAS records ^{/7/}) and monthly meter reading forms ^{/8/} during the monitoring period. Since the TEIAS-sealed bidirectional electricity meters record both imported and exported electricity. The amount of electricity generation obtained from the EPIAS records ^{/7/} and used in the emission reduction calculation reflects the net electricity generation, meaning that the electricity consumed on-site has already been deducted within this value. Therefore, project emissions from electricity consumption are not calculated separately, as no electricity is drawn from the grid. The project uses only the portion of the generated electricity required for its own operation, and the remainder is exported to the grid as net generation. This net value is used in the emission reduction calculations.																		
Source of data checked by the assessment team	The calibrated Landis + Gry and Makel electricity meters ^{/9/}: <table border="1"> <thead> <tr> <th></th><th>Old Main Meter</th><th>New Main Meter</th><th>Back-up Meter</th></tr> </thead> <tbody> <tr> <td>Brand</td><td>Landis + Gry</td><td>Landis + Gry</td><td>Makel</td></tr> <tr> <td>Type</td><td>ZG410CR-1040</td><td>ZG410CR-1040</td><td>C520.AMT.2556.RS48 5 R Role</td></tr> <tr> <td>Serial No</td><td>50979650</td><td>20245117</td><td>80347877</td></tr> </tbody> </table>				Old Main Meter	New Main Meter	Back-up Meter	Brand	Landis + Gry	Landis + Gry	Makel	Type	ZG410CR-1040	ZG410CR-1040	C520.AMT.2556.RS48 5 R Role	Serial No	50979650	20245117	80347877
	Old Main Meter	New Main Meter	Back-up Meter																
Brand	Landis + Gry	Landis + Gry	Makel																
Type	ZG410CR-1040	ZG410CR-1040	C520.AMT.2556.RS48 5 R Role																
Serial No	50979650	20245117	80347877																

	Calibration Date	24/12/2021	20/01/2024	04/08/2022
	Calibration Due Date	23/12/2031	19/01/2034	03/08/2032
	Date of Change	24/07/2025	-	-
Value(s) of monitored parameter	Vintage		EG _{EC,y} (MWh)	
	01/08/2023 – 31/12/2023		0	
	01/01/2024 – 31/12/2024		0	
	01/01/2025 – 23/09/2025		0	
	Total		0	
Measuring/reading/recording frequency:	Electricity consumption is measured continuously through the TEIAS-sealed bidirectional electricity meters installed at the grid connection point. The meter records are automatically logged and form the basis of EPIAS records ^{/7/} . Although the measurement itself is continuous, the readings are formally recorded and documented on a monthly basis as part of the settlement and invoicing process.			
QA/QC procedures:	The electricity consumption data undergoes strict QA/QC controls due to the use of TEIAS-sealed electricity meters, which serve as the official basis for electricity billing and grid settlement. Since the project owner cannot intervene with the meters, the risk of manipulation is inherently minimized. TEIAS performs periodic calibration and functionality checks in accordance with national metering regulations, and these calibration certificates were reviewed by the assessment team and found to be valid for the entire monitoring period.			
Cross Checks	Monthly meter reading forms issued by TEIAS ^{/8/}			

Relevant SDG	SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all
Data/parameter:	TDL _{j,y}
Unit	%

Description	Average technical transmission and distribution losses for providing electricity for source j, in year y
Means of verification:	The assessment team verified the application of the $TDL_{j,y}$ parameter by reviewing the methodological justification and data sources referenced in the MR. As per Tool 05, version 03.0 /23/, transmission and distribution losses are required only where relevant and applicable. For this project, $TDL_{j,y}$ is taken from the most recent nationally recognized figures (IEA/World Bank statistics) and applied ex-ante at a value of 9%. The assessment team reviewed the referenced data sources, confirmed that the selected value aligns with internationally published figures for Turkey, and verified that the parameter is used consistently in baseline calculations. net electricity export values are used directly from TEIAS meters without upstream transmission losses, the $TDL_{j,y}$ parameter does not influence project emissions. The verification confirmed that the parameter is correctly referenced, transparently applied, and methodologically justified.
Source of data checked by the assessment team	IEA Statistics provided by The World Bank ¹⁰ Best available recent reliable and accurate data ¹¹
Value(s) of monitored parameter	11.02%
Measuring/reading/recording frequency:	Annually (In the absence of the data from the relevant year, most recent figures will be used.)
QA/QC procedures:	QA/QC procedures focus on ensuring that the value applied is consistent with authoritative publications and used correctly within the baseline emission calculations. The project participant applies the most recent and reliable national grid loss factor reported by IEA/World Bank statistics, and the assessment team verified that the referenced 9% value aligns with these official sources.
Cross Checks	The team confirmed that TEIAS meter data used for electricity export already represents net delivered electricity, ensuring that no additional transmission loss adjustment is required for project emissions.

Relevant SDG	SDG 13: Take urgent action to combat climate change and its impacts
--------------	---

¹⁰ <https://data.worldbank.org/indicator/EG.ELC.LOSS.ZS?locations=TR>

¹¹ Türkiye Electricity Distribution Sector Report, page 21; <https://www.tedas.gov.tr/FileUpload/MediaFolder/ff204253-90d1-4560-8946-cdc529dceff2.pdf>

Data/parameter:	Operation of the Energy Plant											
Unit	Hours/year											
Description	Operation of the energy plant											
Means of verification:	The operating hours of the gas engines were verified through multiple consistent sources of evidence. The project owner maintains shift-based operational logs in which the accumulated operating hours of each engine are recorded at least once per shift ^{/15/} . These records were cross-checked against the electricity generation data ^{/7/} obtained from the electricity meters, ensuring consistency between engine operation and actual electricity export to the grid. Furthermore, the hour counters installed on each gas engine were physically inspected during the site visit, confirming that the recorded operating hours align with the monitoring data reported in the MR ^{/1/} . No discrepancies were observed between logbooks, engine hour counters, and electricity generation records, demonstrating that the monitoring of Op _{j,h} is accurate, complete, and in line with ACM0001 ^{/20/} and the project’s approved Monitoring Plan ^{/3/} .											
Source of data checked by the assessment team	The assessment team reviewed the shift-based operation logs maintained by the project operator, the engine hour-counter readings observed during the site visit, and the EPIAS records ^{/7/} used for monthly electricity export protocols.											
Value(s) of monitored parameter	<table><tr><td>Vintage</td><td>Op_{j,h} (h)</td></tr><tr><td>01/08/2023 – 31/12/2023</td><td>10,680</td></tr><tr><td>01/01/2024 – 31/12/2024</td><td>19,756</td></tr><tr><td>01/01/2025 – 23/09/2025</td><td>11,967</td></tr><tr><td>Total</td><td>42,403</td></tr></table>		Vintage	Op _{j,h} (h)	01/08/2023 – 31/12/2023	10,680	01/01/2024 – 31/12/2024	19,756	01/01/2025 – 23/09/2025	11,967	Total	42,403
Vintage	Op _{j,h} (h)											
01/08/2023 – 31/12/2023	10,680											
01/01/2024 – 31/12/2024	19,756											
01/01/2025 – 23/09/2025	11,967											
Total	42,403											
Measuring/reading/recording frequency:	The project operator performs manual readings and records the accumulated operating hours once every shift, following the plant’s three-shift (24-hour) operational structure. These shift-based records are consolidated into monthly logs and used as the basis for the annual operating hour totals											
QA/QC procedures:	Shift supervisors are responsible for ensuring that the hour-counter readings are taken accurately at each shift change and recorded in the official operation logbook. Recorded values are cross checked with electricity generation data to identify any inconsistencies between engine operation and energy output. Any deviations or											

	abnormal variations trigger an internal review by the plant's technical team.
Cross Checks	The recorded operating hours were cross checked against multiple independent data sources to ensure completeness and consistency. First, the shift logbook entries were compared with the hour-counter readings physically inspected on each gas engine during the on-site visit. Second, the assessment team cross verified the reported operating hours with the main meter electricity export data for the corresponding periods, ensuring that engine operation logically aligned with the electricity generation patterns.

Relevant SDG	SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Data/parameter:	Number of Employment Generation
Unit	Number
Description	Number of people employed directly due to the project activity
Means of verification:	The assessment team verified the number of employment positions generated by the project activity through a detailed review of plant employment records and Social Security Institution (SSI) registration documents. During the on-site visit, the team conducted interviews with plant employees and management to confirm the number of staff currently engaged in plant operation, maintenance, and administrative functions.
Source of data checked by the assessment team	Social Security Records ^{/13/}
Value(s) of monitored parameter	23 employees
Measuring/reading/recording frequency:	Annually
QA/QC procedures:	The project participant maintains formal social security records and administrative procedures to ensure that employment data is accurately recorded and traceable.
Cross Checks	Work contracts of the employees

Relevant SDG	SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and descent work for all											
Data/parameter:	Quality of Employment											
Unit	Number											
Description	Training to staff											
Means of verification:	The assessment team verified the quality of employment parameter by reviewing the training records maintained by the project owner. Training certificates were examined to confirm the number and type of trainings conducted during the monitoring period. During the on-site visit, the assessment team interviewed plant staff and management to validate that the reported trainings were effectively delivered and relevant to the operation, safety, and technical performance of the facility.											
Source of data checked by the assessment team	Training certificates ^{/14/}											
Value(s) of monitored parameter	<table><tr><td>Vintage</td><td>Number of Trainings</td></tr><tr><td>01/08/2023 – 31/12/2023</td><td>1</td></tr><tr><td>01/01/2024 – 31/12/2024</td><td>3</td></tr><tr><td>01/01/2025 – 23/09/2025</td><td>3</td></tr><tr><td>Total</td><td>7</td></tr></table>		Vintage	Number of Trainings	01/08/2023 – 31/12/2023	1	01/01/2024 – 31/12/2024	3	01/01/2025 – 23/09/2025	3	Total	7
Vintage	Number of Trainings											
01/08/2023 – 31/12/2023	1											
01/01/2024 – 31/12/2024	3											
01/01/2025 – 23/09/2025	3											
Total	7											
Measuring/reading/recording frequency:	Annually											
QA/QC procedures:	The project participant applies structured QA/QC procedures to ensure that all training activities are properly documented, traceable, and accurately reflected. Training sessions are recorded through formal attendance sheets signed by participants, together with accompanying training agendas, materials, and instructor records.											
Cross Checks	Regulatory requirement ¹²											

¹² <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=18371&MevzuatTur=7&MevzuatTertip=5>

The verification team confirms;

- a) The monitoring plan implemented is in line with monitoring plan included in GS4GG PDD ^{/3/}.
- b) The monitoring complies with the requirement of the applied methodology.
- c) The information inflow (from data generation, aggregation, to recording, calculation and reporting) is included above under each parameter and confirms to the requirement of the GS4GG PDD ^{/3/}.
- d) The values included in the monitoring report and corresponding emission reduction sheet are verified, cross checked and included under each monitoring parameter, wherever appropriate
- e) The findings relevant to each parameter, wherever appropriate are discussed in detail in Appendix 1 of this report.

In summary, the verification team confirms that all the ex-post parameters are monitored in accordance with the approved monitoring plan and applied methodology ^{/20/}.

b. Implementation of sampling plan

PP did not apply sampling plan to determine data and parameters monitored during this monitoring period. The verification team has checked all the documents such as EPIAS records ^{/7/} and hence sampling plan was not required. The verification team hereby confirms that has checked all the documents.

d. Compliance with the calibration frequency requirements for measuring instruments

The project fully complies with all calibration frequency requirements defined under the Regulation on Measurement and Inspection of Measurement Devices in Turkey ¹³ and the relevant equipment manufacturers' instructions.

Across all monitored parameters (flow meters, gas analyzers, temperature sensors, electricity meters and so on), the legally-required calibration frequency is 10 years, and all instruments are within valid calibration periods.

¹³ <https://www.resmigazete.gov.tr/eskiler/2016/06/20160629-22.htm>

3.5 SDG Outcomes Monitoring

For Contributions to Sustainable Development

The verification team checked the sustainable development indicator parameters during the site visit interviews.

In Summary, it is Enviance's opinion that the monitoring of the project owner regarding to sustainability is in line with requirement of the GS4GG guideline.

As per the sustainability monitoring plan in the GS4GG PDD ^{/3/}, verification team evaluated all sustainable development indicators as followed in the table:

Relevant SDG	SDG Impacts values achieved during this monitoring period
13	213,038 tCO ₂ e ^{/2/}
7	45,595.04 MWh ^{/7/}
8	23 employment and 7 trainings ^{/13/ /14/}

3.6 Summary of ex-post values of each SDG outcome for the current monitoring period

Item	Baseline estimate	Project estimate	Net benefit
SDG 7: Affordable and Clean Energy	0	45,595.04 MWh	45,595.04 MWh
SDG 8: Decent Work and Economic Growth			
Trainings provided to O&M staff (Nos)	0	7	7
No. of Employment opportunities created (Nos)	0	23	23
SDG 13: Climate Action	213,038 tCO ₂ e	0	213,038 tCO ₂ e

3.7 Comparison of actual value of outcomes with estimates in approved GS PDD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 7: Affordable and Clean Energy	68,600 MWh 147,349.04 MWh for current monitoring period	45,595.04 MWh

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 8: Decent Work and Economic Growth	1 training and 5 employments at the site	23 employees working at site and 7 training conducted during current monitoring period.
SDG 13: Climate Action	262,814 VERs per year 565,230 VERs for current monitoring period	213,038 VERs

3.8 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

Baseline Emissions

According to ACM0001: Flaring or Used of Landfill Gas (version 19.0)^{/20/}, the baseline emissions for this project are calculated as follows:

$$BE_y = BE_{CH_4,y} + BE_{EC,y}$$

To calculate $BE_{CH_4,y}$, the methodology determines the following equation:

$$BE_{CH_4,y} = ((1 - OX_{top_layer}) \times F_{CH_4,PJ,y} - F_{CH_4,BL,y}) \times GWP_{CH_4} \dots \text{Eqn (1)}$$

Since there are no legal requirements in Turkey to destroy methane and the LFG was not captured prior to proposed project activity, $F_{CH_4,BL,y}$ is taken as “0”.

Since this is a verification process, ex-post determination of $F_{CH_4,PJ,y}$ is applied:

$$F_{CH_4,PJ,y} = F_{CH_4,flared,y} + F_{CH_4,EL,y} + F_{CH_4,HG,y} + F_{CH_4,NG,y}$$

As the proposed project activity doesn't involve thermal energy production nor the methane is fed to the natural gas distribution network, $F_{CH_4,HG,y}$ and $F_{CH_4,NG,y}$ is taken as “0”. Thus, the above equation is simplified as follows:

$$F_{CH_4,PJ,y} = F_{CH_4,flared,y} + F_{CH_4,EL,y}$$

To calculate $F_{CH_4,flared,y}$:

$$F_{CH_4,flared,y} = F_{CH_4,sent_flare,y} - (PE_{flare,y} / GWP_{CH_4})$$

To calculate $PE_{flare,y}$, Tool 06 is used:

$$PE_{flare,y} = GWP_{CH_4} \times \sum_{m=1}^{525600} F_{CH_4,RG,m} \times (1 - \eta_{flare,m}) \times 10^{-3}$$

To calculate $F_{CH_4,sent_flare,y}$ and $F_{CH_4,EL,y}$ Tool 08^{/25/} is used:

$$F_{CH_4,t} = V_{t,db} \times v_{CH_4,t,db} \times \rho_{CH_4,t}$$

SCADA system ^{/15/} is available at the project site. With this system, data are recorded continuously. Parameters (Hourly production results and flared gas amounts) related to flaring, are also monitored via this system and Daily Reports are prepared automatically by the system. At the project site, LFG is not flared normally if there are no emergency cases. With reviewing Daily Reports, it may be also confirmed by the VVB that no gas was flared during the current monitoring period.

To calculate $BE_{EC,y}$, Tool 05 ^{/23/} is used:

$$BE_{EC,y} = \sum_k EC_{BL,k,y} * EF_{EL,k,y} * (1 + TDL_{k,y})$$

After applying these formulas, the baseline emissions of the project activity is calculated as 213,038 tCO₂e for the current monitoring period ^{/2/}.

Project Emissions

According to ACM0001: Flaring or Used of Landfill Gas (version 19.0) ^{/20/}, the project emissions are calculated as follows:

$$PE_y = PE_{EC,y} + PE_{FC,y} + PE_{DT,y} + PE_{SP,y}$$

Since there is no distribution of compressed/liquefied LFG using trucks and there is no supplying of LFG to consumers through a dedicated pipeline, $PE_{DT,y}$ and $PE_{SP,y}$ are taken as “0”.

Thus, the above equation is simplified as follows:

$$PE_y = PE_{EC,y} + PE_{FC,y}$$

To calculate $PE_{EC,y}$, Tool 05 ^{/23/} is used:

$$PE_{EC,y} = \sum_j EC_{PJ,j,y} \times EF_{EF,j,y} \times (1 + TDL_{j,y})$$

The amount of electricity generation obtained from the EPIAS records ^{/7/} and used in the emission reduction calculation reflects the net electricity generation, meaning that the electricity consumed on-site has already been deducted within this value. Therefore, project emissions from electricity consumption are not calculated separately, as no electricity is drawn from the grid. The project uses only the portion of the generated electricity required for its own operation, and the remainder is exported to the grid as net generation. This net value is used in the emission reduction calculations.

Therefore, $PE_{EC,y} = 0$ as well.

The project emissions of the project activity is 0 in this current monitoring period.

Leakage Emissions

Leakage emission (LE_y) is considered as “0” as suggested in ACM0001, version 19.0 ^{/20/}.

Emission Reductions

According to the applied methodology ACM0001, version 19.0 ^{/20/} and the registered PDD ^{/3/}, the GHG emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

where:

ER_y = Emission reductions in year y (tCO₂/yr)

BE_y = Baseline emissions in year y (tCO₂/yr)

PE_y = Project emission in year y (tCO₂/yr)

LE_y = Leakage emissions in year y (tCO₂/yr)

Therefore,

$$ER_y = 213,038 - 0 - 0 = 213,038 \text{ tCO}_2\text{e}$$

3.9 Management and Operational System

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the approved GS4GG PDD ^{/3/}. The same practice is followed onsite and it is confirmed by the assessment team during the site visit. The data related to ER calculation ^{/2/} as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the registered GS4GG PDD ^{/3/}.

The information flow of each parameter has been verified by the assessment team via interviewing with responsible personnel.

It's verified during the site visit, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the GS4GG PDD ^{/3/}. The monitoring personnel have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure. Also, the training records (training register and attendance sheet) has been checked by the assessment team and it is confirmed that the monitoring personnel are sufficiently trained to perform the monitoring.

All the data and documents, either hard copies or soft copies, will be kept for two years after the end of the last crediting period or the last issuance of GS VERs for this Project, whichever occurs later.

4 Reference

LIST OF DOCUMENTS	
S NO.	Document/Evidence/Reference/Weblink, Version, Date
1	Monitoring Report, v05, dated 13/03/2026 Monitoring Report, v04, dated 10/02/2026 Monitoring Report, v03, dated 05/12/2025 Monitoring Report, v02, dated 16/10/2025 Monitoring Report, v01, dated 26/08/2025
2	ER Calculation Excel Sheet, v06, dated 13/03/2026 ER Calculation Excel Sheet, v05, dated 10/02/2026 ER Calculation Excel Sheet, v04, dated 24/12/2025 ER Calculation Excel Sheet, v03, dated 05/12/2025 ER Calculation Excel Sheet, v02, dated 16/10/2025 ER Calculation Excel Sheet, v01, dated 26/08/2025
3	Registered PDD, v13.7, dated 28/03/2023
4	Validation Report, v01, 01/11/2022
5	Commissioning Certificates, dated 19/05/2012, 27/07/2012, 07/09/2012
6	Generation License, dated 03/02/2022
7	EPIAS Records, between 01/08/2023-23/09/2025
8	Meter Reading Forms, between 01/08/2023-23/09/2025
9	Calibration documents of the electricity meters, dated 24/12/2021, 04/08/2022, 20/01/2024
10	Calibration document of the flow meter, dated 29/11/2022
11	Calibration documents of the gas analyzer, dated 27/04/2022, 22/09/2023 30/09/2024, 18/07/2025
12	Calibration documents of the thermocouples, dated 27/04/2022, 17/11/2022, 08/10/2024, 28/04/2025
13	Social security records of the employees
14	Training certificates of the employees for year 2023, 2024, 2025
15	SCADA data of the monitoring equipment
16	Signed declaration about no double counting, dated 08/10/2025
17	Signed declaration regarding the discontinuation of waste receipt, dated 10/10/2025
18	Photographic Evidences of the Old Landfill Area
19	Municipality Agreement, dated 14/01/2011
20	ACM0001, v19.0
21	Tool 02, v07.0
22	Tool 04, v08.1
23	Tool 05, v03.0
24	Tool 07, v07.0
25	Tool 08, v03.0
26	Tool 11, v03.0.1
27	GS4GG Principles and Requirements, v2.1
28	GS4GG Validation and Verification Standard, v2.0
29	Grievance book
30	SDG Impact Tool, v01, dated 05/12/2025
31	Latest Annual Report, dated 18/12/2025
32	IPCC Fifth Assessment Report
33	IPCC 2006 Guidelines

34	SDG Impact Tool, v2, dated 24/12/2025 SDG Impact Tool, v3, dated 13/03/2026
----	--

5 Final verification statement

Enviance has been engaged by ITC-KA Enerji Üretim San. ve Tic. A.Ş. to perform the 2nd Verification of the 2nd Crediting Period of the “Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project” (GS Ref. No. GS 1068).

The management of ITC-KA Enerji Üretim San. ve Tic. A.Ş. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project’s Monitoring Plan in the registered PDD version 5.0 ^{/3/} and the applied methodology ACM0001 Version 19.0 ^{/20/}.

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board and Gold Standard. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. A reasonable level of assurance has been achieved during this verification. The verification can confirm that:

- the project is operated as planned and described in the approved GS4GG project design documents;
- the monitoring plan is as per the applied methodologies;
- the monitoring in Monitoring Report is as per the PDD and the monitoring plan approved by GS4GG;
- the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

In our opinion, the GHG emission reductions for “Bursa-Hamitler Landfill Gas Collection and Energy Utilization Project” for the monitoring period 01/08/2023 to 23/09/2025 (Both days included) as reported in Monitoring Report, prepared on the basis of the project’s Monitoring Plan are fairly stated.

Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period:	01/08/2023 to 23/09/2025 (Both days included)
-------------------	---

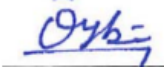
Verified emissions in the above reporting period:

Leakage emissions	0 tCO ₂ e equivalents
Project emissions	0 tCO ₂ e equivalents
Baseline emissions	213,038 tCO ₂ e equivalents
Emission reductions	213,038 tCO ₂ e equivalents

ASSESSMENT TEAM

Lead Auditor:
Ms. Öykü Yakupoğlu

Signature:



Technical Reviewer
Mr. Pankaj Kumar



Signature: _____



Approver:
Ms. Vidhya Muralikrishna
Date: 19-03-2026

Vintage wise breakup of GS VERs

Year	Emission Reductions (tCO ₂ e)
01/08/2023 – 31/12/2023	54,860
01/01/2024 – 31/12/2024	101,132
01/01/2025 – 23/09/2025	57,046
Total	213,038

Date:	18/03/2026
Lead Auditor:	Ms. Öykü Yakupoğlu
Tech. Expert:	Ms. Öykü Yakupoğlu
Tech. Reviewer:	Mr. Pankaj Kumar

Appendix

Appendix 1: Corrective Action Request/Clarification Request/Forward Action Request resolution table

Classification	CAR	Number:	01
Raised by:	Öykü Yakupoğlu	Document Reference	Section A.2
Finding Description		Date: 27/09/2025	
Please include the nearest settlements in Section A.2.			
Client/Responsible Party/Project Proponent Response		Date: 15/10/2025	
The nearest settlement is Yenibağlar Neighbourhood. This information is included in Section A.2. of the revised MR.			
Validation/Verification Team Assessment		Date: 24/10/2025	
Review-1: Ok Closed (The nearest settlement was included in Section A.2.)			

Classification	CAR	Number:	02
Raised by:	Öykü Yakupoğlu	Document Reference	Section A.3
Finding Description		Date: 27/09/2025	
Please add the reference links for the applied methodology and tools mentioned in Section A.3.			
Client/Responsible Party/Project Proponent Response		Date: 15/10/2025	
The reference links for the applied methodology and tools are included in Section A.3.			
Validation/Verification Team Assessment		Date: 24/10/2025	
Review-1: Ok Closed (Reference links were included in Section A.3.)			

Classification	CAR	Number:	03
Raised by:	Öykü Yakupoğlu	Document Reference	Section G.2
Finding Description		Date: 27/09/2025	
Please provide a declaration signed by the Project Owner confirming that there has been no double counting or legal contest during this monitoring period.			
Client/Responsible Party/Project Proponent Response		Date: 15/10/2025	
No double counting and no legal contest declaration is now provided.			
Validation/Verification Team Assessment		Date: 24/10/2025	
Review-1: Ok Closed (The signed letter was provided.)			

Classification	CAR	Number:	01
Raised by:	Öykü Yakupoğlu	Document Reference	Cover Page
Finding Description		Date: 27/09/2025	
a) Please also indicate the Project Owner in the “Project Representative” row on the cover page. b) Please click the relevant box for the “Product Requirements applied” row on the cover page.			

Client/Responsible Party/Project Proponent Response	Date: 15/10/2025	
a) The project owner is indicated in the "Project Representative" row on the cover page. b) "GHG Emissions Reduction & Sequestration" box is selected now.		
Validation/Verification Team Assessment	Date: 24/10/2025	
Review-1: a) Ok Closed (The Project Owner was included on the cover page.) b) Ok Closed (The relevant box was selected on the cover page.)		

Classification	CAR	Number:	02
Raised by:	Öykü Yakupoğlu	Document Reference	Section A.1
Finding Description		Date: 27/09/2025	
a) Please specify the full name of the project as registered under GS in the first paragraph of Section A.1. Afterwards, abbreviations may be used. b) Please provide the "Municipality Agreement" dated 14/01/2011. c) In Section A.1, "The estimated average amount of MSW to be supplied to the landfill during the current crediting period will be 2,413 tons/day." is stated. However, during the on-site visit it was learned that, starting from 2019, the intake of waste has been gradually reduced. Please explain this situation in Section A.1 and provide the relevant supporting evidence document (Also, in Section B.1.) d) During the on-site visit, it was observed that only four gas engines are currently located at the site, of which two are operational while the other two are kept as backup units. Please include this information in Section A.1 and provide the relevant supporting evidence documents (Also, in Section B.1.). e) Please provide the commissioning certificates of the gas engines.			
Client/Responsible Party/Project Proponent Response	Date: 15/10/2025		
a) The full name of the project is used in the first paragraph of Section A.1. b) Municipality Agreement is provided. c) The necessary explanations are included in Section A.1. and Section B.1. d) The information about operational gas engines are included in the Section A.1 and Section B.1. e) The commissioning certificates of the gas engines are provided.			
Validation/Verification Team Assessment	Date: 24/10/2025		
Review-1: a) Ok Closed (The full name of the project activity was included in Section A.1.) b) Ok Closed (The Municipality Agreement was provided.) c) Ok Closed (Relevant explanations were included in Sections A.1 and B.1.) d) Ok Closed (Relevant explanations were included in Sections A.1 and B.1.) e) Ok Closed (The commissioning certificates were provided.)			

Classification	CAR	Number:	03
Raised by:	Öykü Yakupoğlu	Document Reference	Section B.1
Finding Description		Date: 27/09/2025	
a) According to the project's generation license, the engine capacities are 1.427 MWm / 1.400 MWe. However, in the table presented in Section B.1, these values are indicated as 1.450 MWm / 1.415 MWe. Please clarify this discrepancy. b) Please specify in Section B.1 how leachate management is ensured.			

Client/Responsible Party/Project Proponent Response	Date: 15/10/2025	
a) The engine capacities in the table in Section B.1. is revised and it is consistent with the generation license and commissioning certificates. b) Leachate management details are included in Section B.1.		
Validation/Verification Team Assessment	Date: 24/10/2025	
Review-1: a) Ok Closed (The installed capacities of the gas engines were corrected in Section B.1.) b) Ok Closed (The relevant explanation was included in Section B.1.)		

Classification	CAR	Number:	04
Raised by:	Öykü Yakupoğlu	Document Reference	Section B.2.3
Finding Description		Date: 27/09/2025	
Please indicate the change that occurred to the 2 nd crediting period start and end dates in Section B.2.3.			
Client/Responsible Party/Project Proponent Response	Date: 15/10/2025		
The crediting period is 19/05/2019 to 18/05/2026 according to approved PDD. Approved PDD and GS final review form are provided as supporting documents. There is no change to crediting period. There was a typo error in section A.4. Thus, the dates of the crediting period in Section A.4 are corrected align with the PDD.			
Validation/Verification Team Assessment	Date: 24/10/2025		
Review-1: Ok Closed (The clarification was made.)			

Classification	CAR	Number:	05
Raised by:	Öykü Yakupoğlu	Document Reference	Section D.1
Finding Description		Date: 27/09/2025	
Please correct the formatting of the table for the k_j parameter in Section D.1.			
Client/Responsible Party/Project Proponent Response	Date: 16/10/2025		
The table format is corrected for k_j parameter			
Validation/Verification Team Assessment	Date: 24/10/2025		
Review-1: Ok Closed (The format of the parameter table was corrected in Section D.1.)			

Classification	CAR	Number:	06
Raised by:	Öykü Yakupoğlu	Document Reference	Section D.2
Finding Description		Date: 27/09/2025	
a) Please also provide the values for “Operation of the equipment that consumes the LFG” by vintage in the ER Excel sheet. b) Please provide “the photographs before the implementation of the project activity” as supporting evidence for the “Management of SWDS” data. c) Since there is an issue in opening the calibration documents of the monitoring equipment (i.e. flow meters and gas analyzer), please resend them. Also, kindly ensure to indicate whether any calibration was carried out during the monitoring period (08/2023 – 05/2025). d) In the photographs taken during the site visit, the serial numbers of the meters appear as “20245117” and “80347877.” However, in the calibration documents provided and, in the MR, the specifications of the main			

meter are shown differently. If a meter replacement has taken place, please indicate this in the MR and provide the corresponding meter change document. e) For the back-up meter with serial no “80347877”, the provided document is dated as 05/08/2022. Please confirm whether this document is the initial index protocol of this meter. f) For the “T_t” monitoring parameter, “No separate monitoring of temperature is necessary when using flow meters that automatically measure temperature and pressure, expressing LFG volumes in normalized cubic meters” is stated in Section D.2. However, during the on-site visit it was observed that the temperature is measured with a thermocouple. Therefore, please revise the relevant part of Section D.2 accordingly, add the specifications of the thermocouple to the report, and provide the related calibration documents. g) For the monitoring parameter EG_{PJ,y}, please specify the net electricity values in Section D.2. h) The parameter EG_{EC,y} is monitored during periods when electricity consumption is sourced from fossil fuels. Therefore, please review the values provided in Section D.2 accordingly. In addition, the equipment used to monitor this parameter is not electricity meters, but rather the electricity invoices.		
Client/Responsible Party/Project Proponent Response	Date: 16/10/2025	
a) “Operation of the equipment that consumes the LFG” are provided by vintage in “Scada Records” tab in the ER Excel sheet and also provided in Opj,h data/parameter table in revised MR. b) The photographs before the implementation of the project activity are provided as supporting documents. c) Calibrations documents are provided as supporting documents and calibration dates are included in MR. d) The main meter is change with the new one on 23/07/2025. The new electricity meter details are also included in revised MR. Electricity meter change report (which is also calibration report for the new meter) is provided as supporting documents. e) As seen in the back up electricity meter photo, the manufacture year of the backup meter is 2021. Therefore, the document dated 05/08/2022 represents the first index protocol prepared after the meter was installed at the site. f) This wrong information is removed from the revised MR. Thermometers specifications and calibration details are included to MR, and calibration documents are submitted as supporting documents. g) Net electricity values are revised now. h) There is no electricity consumption from fossil fuels. Thus values are revised for this parameter. Source of data is also revised as electricity invoices.		
Validation/Verification Team Assessment	Date: 24/10/2025	
Review-1: a) Ok Closed (The operation hours were included in Section D.2.) b) Ok Closed (The photographic evidences were provided.) c) Ok Closed (All calibration documents were provided and relevant dates were included in Section D.2.) d) Ok Closed (The meter change and its details were included in Section D.2.) e) Ok Closed (The clarification was made.) f) Ok Closed (Thermometers’ specifications were included in Section D.2 and all calibration documents were provided.) g) Ok Closed (Electricity generation values were corrected in Section D.2.) h) Ok Closed (The details of EG_{EC,y} parameter were corrected in Section D.2.)		

Classification	CAR	Number:	07
Raised by:	Öykü Yakupoğlu	Document Reference	Section D.3
Finding Description		Date: 27/09/2025	

Section D.3 applies to “Community Service Activities” projects. Therefore, please revise that section accordingly.		
Client/Responsible Party/Project Proponent Response	Date: 16/10/2025	
Section D.3. is revised accordingly.		
Validation/Verification Team Assessment	Date: 24/10/2025	
Review-1: Ok Closed (Section D.3 was revised accordingly.)		

Classification	CAR	Number:	08
Raised by:	Öykü Yakupoğlu	Document Reference	Section E.1
Finding Description		Date: 27/09/2025	
a) Please revise the parameter symbols in Equation 3 provided in Section E.1. b) Please add the references for the OM and BM values specified in Section E.1.			
Client/Responsible Party/Project Proponent Response		Date: 16/10/2025	
a) The parameter symbols in Equation 3 are revised. b) The reference for the OM and BM values are included now. The OM and BM values are also revised in line with the registered PDD.			
Validation/Verification Team Assessment		Date: 24/10/2025	
Review-1:			
a) Ok Closed (The symbols of the parameters were corrected in Section E.1.) b) Ok Closed (The references were included in Section E.1.)			

Classification	CAR	Number:	09
Raised by:	Öykü Yakupoğlu	Document Reference	Section E.2
Finding Description		Date: 27/09/2025	
Please correct the achieved electricity generation value for the current monitoring period in Section E.2.			
Client/Responsible Party/Project Proponent Response		Date: 16/10/2025	
The achieved electricity generation value is revised in Section E.2.			
Validation/Verification Team Assessment		Date: 24/10/2025	
Review-1:			
Ok Closed (The electricity generation value was corrected in Section E.2.)			

ABBREVIATIONS	
ACM	Approved Consolidated Methodology
BM	Build Margin
CAR	Corrective Action Request
CER	Certified Emission Reduction
CL	Clarification Request
CM	Combined Margin
EF	Emission Factor
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
MR	Monitoring Report
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
OM	Operational Margin
PDD	Project Design Document
PP	Project Participant
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

Appendix 2: Abbreviations

Appendix 3: Audit Team CVs

Name	SHORT CV BACKGROUND INFORMATION
Ms. Öykü Yakupoğlu	Ms. Öykü Yakupoğlu is qualified Team Leader and auditor for scope 1.1-2 and 13.1-2 for validation and verification of GHG projects. She is actively working in the climate change domain for 4+ years and involved in validation/ verification of around 200 projects under Gold Standard/ VERRA/ GCC and ICR. Ms. Öykü is graduate in Environmental Engineering from Middle East Technical University and in Chemistry (M.Sc.) from Gazi University and currently pursuing her PhD in Energy Systems Engineering from Ankara Yıldırım Beyazıt University.
Mr. Vipul Jain	Vipul holds Bachelor of Technology from VIT University Vellore in 2020. He has gained valuable work experience as a site engineer at Light House Energy Developers, where he was employed from May 2020 to August 2022. Vipul holds an IRCA certification as an ISO 9001 Lead Auditor, demonstrating his expertise in quality management systems. He is well-versed in ISO 14064-1, ISO 14064-2, and ISO 14064 3, which are standards for greenhouse gas accounting and reporting. Furthermore, Vipul has received training in ISO 17029 and ISO 14065, highlighting his proficiency in environmental auditing and conformity assessment. He has also completed Clean Fuel Regulation training from Environment and Climate Change Canada, demonstrating his expertise in environmental management and sustainability.
Mr. Aniket Kumar	Aniket Kumar holds an M.Tech in Energy Engineering from the Central University of Jharkhand. His research focuses on algal biofuels production, co-pyrolysis of biomass and waste plastic, and he has experience with solar simulators, engine testing with biofuels, and solar PV waste management from a research training program at IIT Guwahati. He is certified in "Solar PV Off-Grid and On-Grid" by the National Institute of Wind Energy (NIWE). Currently, he works at Enviance Services Private Limited, supporting audit teams in verifying project activities under CDM, VCS, GS4GG, and GCC programs.
Ms. Tanu Yadav	Tanu Yadav completed her Master's in Environment Science & Technology from Bharati Vidyapeeth Deemed University, Pune, in 2023, and a Bachelor's in Botany from Jiwaji University, Gwalior, in 2021. Her research focused on the "Analysis of Solid Waste in Residential Areas." Tanu is certified in ISO 14001:2015 and ISO 45001:2018. She has experience as an ESG Consultant at SG Analytics, conducting sustainability research and in-depth ESG assessments. Currently, she works at Enviance Services Private Limited, supporting audit teams in verifying project activities under CDM, VCS, GS4GG, and GCC programs.
Mr. Prakhar Shastri	Prakhar Shastri has done Bachelor of Technology in Electronic Communication Engineering from Medicaps University, Indore. Currently, He is working in Enviance Services Private Limited and has been involved in supporting Audit teams for Verifications of Project Activities (Renewable and non Renewable projects) under various registries like GCC.

Mr. Aiyappa N P	Aiyappa N P is a forestry professional and sustainability associate specializing in climate change mitigation through nature-based solutions. With academic credentials including an MBA in Forest Management from the Indian Institute of Forest Management (2025) and a B.Sc. in Forestry (Hons.) from the College of Forestry, Ponnampet, he combines technical forestry knowledge with financial and managerial expertise. His professional experience spans roles at Enviance Services, Varaha ClimateAg, and the Office of the Principal Scientific Adviser (GOI), where he contributed to carbon project validation, GHG accounting, and AFOLU methodology assessments. Skilled in sustainability reporting, impact evaluation, and financial modeling, he has developed biomass growth models, verified carbon market registry data, and designed dissemination strategies for rural technologies. Proficient in multiple languages, Aiyappa brings a unique ability to bridge environmental science with financial management, enabling integrated, impactful climate solutions. His work reflects a strong commitment to advancing carbon markets and sustainable development.
Ms. Ritu Singh	Ritu Singh has done Masters in Environmental Science from Central University of South Bihar, Gaya and bachelor of Science in Zoology from Magadh Mahila College, Patna University, India. She has done Masters' research focused on solid waste management during and post covid-19 pandemic and conducted a survey in Medical Colleges of Bihar to study the trends of waste management. She has more than 2 year working experience in True Quality Certifications Pvt. Ltd. (An outsource entity for LGAI Technological Center, S.A. (Spain) "Applus+ Certification") and has been involved in supporting Audit teams for Validation and Verifications of Project Activities (Renewable and non-Renewable projects) under CDM/VCS/GS4GG/GCC programs. Currently, Ritu is engaged as an internal resource with Enviance Services Private Limited, where she is accredited as a Lead Auditor, Validator, Verifier, and Technical Expert for Sectoral Scope/Technical Area 1.2 by Enviance.
Mr. Pankaj Kumar	Pankaj Kumar is a seasoned Environment and Climate Change professional with over 19 years of experience in Climate Change Mitigation & Adaptation, Environmental Due Diligence, Disaster Risk Reduction, Climate Finance, and capacity building. As the Managing Director of Enviance Services Pvt. Ltd., Pankaj Kumar leads a validation and verification body for GHG projects and also providing consultancy services in various areas including Climate Adaptation, Mitigation, Sustainability, and more. Previously, Pankaj Kumar served as a Climate Adaptation Expert with Deloitte Touche Tohmatsu India LLP, contributing to the World Bank project on Asset Management, Institutional Effectiveness, and Road Safety in Bihar. Mr. Pankaj also led the Bihar team for the South Asia Climate Proofing and Growth Development (CPGD) – Climate Change Innovation Programme (CCIP), supported by DFID, which aimed to integrate climate change resilience into planning and budgeting across South Asia. With a strong background in environmental projects, Pankaj Kumar has worked with IL&FS Infrastructure Development Corporation and BUIDCO (Bihar Urban Infrastructure Development Corporation) as an Environmental Specialist for WB & ADB funded projects. Additionally, Pankaj has extensive experience in GHG project validation and verification, having led over 300 projects globally while with UNFCCC accredited DoEs and as an external expert for Gold Standard and Global Carbon Council. Mr. Pankaj is an accredited Lead Auditor, Validator, Verifier, and Technical Expert for multiple sectoral scopes by UNFCCC DoE and is on the roster of WASH experts of UNICEF. Mr. Pankaj's expertise spans across various standards including CDM, Verified Carbon

	Standard, Gold Standard, Global Carbon Council, Natural Forest Standard, Riverse and Social Carbon Standard.
--	--

Document History

Date	Current Version	Revisions	Revised Version
19-10-22	1.0	First Issue	00
10-05-23	1.0	Revised as per IA NC closure	1.1
17-12-23	1.1	Logo Changed	1.2
10-07-25	1.3	Format Changed	1.3

Template Details

Form name/no: F-05.16 Verification Report Template	Issue No: 01	Issue Date: 19-10-22
Effective from: 12-07-25	Revision Date: 10-07-25	Revision no: 03
Prepared by: Vidhya M	Approved by: Pankaj Kumar	Page 63 of 63