Verification report for
GS4GG Project Activity

(Gold Standard for the Global Goals)

BASIC INFORMATION	
Title of the GS4GG Project	Sütas Tire Biogas Plant
GS ID of Project	GS 4817
Version number of the verification and certification report	5.0
Completion date of the verification and certification report	05/12/2025
Monitoring period number and duration of this monitoring period	1st monitoring period of 1st crediting period Duration: 22/08/2022 – 31/05/2024 (21 months)
Version number of the monitoring report to which this report applies	09 Dated: 30/09/2025
Project Representative (s)	1. ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş. (Project Owner) 2. GTE KARBON SUSTAINABLE ENERJI EGITIM DANISMANLIK VE TICARET A.S. (Project Developer)
Host Country	Türkiye
Applied methodologies and standardized baselines	The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste, version 1.0
Activity requirements applied	☐ Community Services Activities ☒ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Mandatory sectoral scopes	Sectoral Scope 01: Energy industries (renewable - / non-renewable sources) Sectoral Scope 13: Waste Handling and Disposal
Product requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Sustainable Development Goals Targeted	**SDG Impact**	**Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period**	**Units/Products**

SDG:7 Affordable and Clean Energy	Thermal Energy Generated	2022: 5,496 2023: 17,907 2024: 7,648 Total: 31,051	MWh
SDG:8 Decent Work and Economic Growth	Number employments	2022: 23 2023: 23 2024: 23 Total:23	People
SDG 12: Sustainable Consumption and Production Patterns	Amount of waste treated	2022: 51,564 2023: 153,441 2024: 62,661 Total:267,666	tonnes
SDG:13 Climate Change	Emission reductions	2022: 63,140 2023: 103,254 2024: 29,121 Total:195,515	tCO2

Name of the Gold Standard approved auditor (VVB)	Earthood Services Limited
Name, position and signature of the approver of the verification and certification report	 Dr. Kaviraj Singh CEO

SECTION A. Executive summary

The project is owned by ENFAS Enerji Elektrik Üretim A.Ş., a subsidiary of SUTAS Group, a leading company in Turkey's dairy products sector. SUTAS Group operates several cattle farms that supply milk to their production facilities. There are multiple cattle farms located near the plant, and manure from these farms is utilized in a biogas plant to generate electricity. The byproducts from the digestion process are then used as fertilizer on nearby agricultural land.

This project involves a biogas-to-energy initiative that generates renewable energy by capturing biogas from cattle manure, chicken manure, and agricultural waste through anaerobic digestion. The biogas is then used to produce thermal and electrical energy via cogeneration systems/33/. Implemented by Sütaş A.Ş. in İzmir province, the project aims to provide an environmentally friendly solution to manure management. Prior to this project, cattle and chicken manure at the farms were managed using lagoons, and agricultural waste was left on the fields.

The project's approach to managing cattle and chicken manure aligns with the applied methodology, which is relevant to manure management on one or multiple livestock farms. The existing anaerobic manure treatment system within the project boundary has been replaced by one animal waste management systems (AWMSs) that result in lower GHG emissions. The handling of agricultural waste complies with the applied methodology, which states that in cases of co-digestion, if it cannot be shown that the organic matter would have decayed anaerobically, baseline emissions for that matter should be considered zero. However, the baseline scenario for current project activity is the disposal of organic waste (manure and agricultural waste) generated in the farms into the anaerobic lagoons, leading to significant emissions which were accounted thereof.

During the monitoring period, the SÜTAS Tire Biogas Plant processed 267,666 tonnes of manure and other waste/12/44/.

The biogas produced from the degradation of organic wastes is used to generate electricity and heat in a cogeneration unit. The project's installed capacity is 4.380 MWm/4.268 MWe (with four gas motors, 4 x 1.067 MWe, license dated 01/09/2016/34/. During the monitoring period, 31,051 MWh of electricity and 25,435 tonnes of steam were generated and delivered, resulting in an emission reduction of 195,515 tCO_2, with an annual average reduction of 115,989 tCO_2/12/.

The main objectives of the project are:

- To decompose waste collected from animal shelters, transforming it into a more stable, environmentally friendly, and odourless fertilizer.
- To meet the facility's heat demand.
- To use biogas from cattle excrement to produce clean electrical energy.
- To produce a fertilizer that is less odorous than conventional fertilizers and contains more free nitrogen (N).

Before the project, manure from the farms was washed out from beneath animal barns and stored in anaerobic lagoons, where it decayed and emitted methane and other toxic gases. These lagoons also posed risks of overflow due to rain, strong winds, or poor construction.

In the baseline scenario, manure was left to decay in anaerobic lagoons or spread over fields. With the implementation of this project, the previously unmanaged manure is now collected daily and treated in a way that prevents excessive methane emissions. The biogas plant captures the methane, which is then used to generate electricity through combustion in a co-generation unit. The electricity produced reduces GHG emissions by decreasing fossil fuel combustion, and the heat generated is used in the dairy facility, partially replacing the natural

gas previously used for heating/9/.

The verification confirms that the total emission reductions achieved under this monitoring period 22/08/2022 - 31/05/2024 (both days inclusive) are 195,515 tCO2e/12/.

Scope of verification:

Enfaş Enerji Elektrik Üretim A.Ş. has contracted Earthood Services Limited (Earthood) to conduct the current verification and certification of emission reductions reported for the GS4GG project activity 4817 "Sütas Tire Biogas Plant" in Republic of Türkiye for the period 22/08/2022 - 31/05/2024, both days included.
The start date of the crediting period in design certified PDD is 01/06/2022, which is revised to 22/08/2022 under current verification cycle, with no further approval from GS as per para 3.3.1.c of GS Design change requirements and procedures where no justification or approval is required for changes in crediting period start date up to one year for the projects with crediting period start date before design certification date. The design certification was approved on 18/06/2024.

Para 2.2.2.(ii).(b) of rule update Applicability of Minimum Site Visit Requirements by VVB states that "The VVB shall not verify the monitoring period falling before two-year of the site visit date". The physical site visit was conducted on 22/08/2024 to 23/08/2024, and accordingly the monitoring period start date considered for current verification is 22/08/2022 which is within two-year limit of site visit date. The period two years before site visit date i.e. from 01/06/2022 to 21/08/2022 was not verified as per para 2.2.2(ii).b of GS rule update "Applicability of Minimum Site Visit Requirements by VVB.
The verification is the independent review and ex post determination by Earthood of the monitored reductions in GHG emissions that have occurred as a result of the registered Gold Standard project activity during the defined monitoring period.

The scope of the verification is to establish/verify that:

- The project activity has been implemented and operated as per the proposed GS PDD/9/, and all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- The monitoring report and other supporting documents provided are complete in accordance with the latest applicable version of the completeness checklist for requests for issuance of GS VERs, verifiable, and in accordance with applicable CDM requirements and GS4GG requirements, GS Validation and Verification Standard;
- The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan, any revised approved monitoring plan, the approved methodology including applicable tool(s) and/or, where applicable, the approved standardized baseline;
- The data recorded and stored as per the monitoring methodology including applicable tool(s) and, where applicable, the standardized baseline.

The verification has considered both quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC and GS4GG, GS Validation and Verification Standard v.2.0/51/, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the PD/others. However, stated requests for clarifications and/or correctiveactions may provide input for improvement of the monitoring activities.

Verification Process:

The verification process is conducted as per internal GS4GG Requirements, which includes the following steps.

a) Contract with project owner (client) and appointment of verification team and

technical reviewteam (refer Section B.1 and B.2 of this report)

b) Desk review (refer Section C.1 of this report) of Monitoring Report and corresponding ER sheet by verification team (including sampling approach (refer Section D.4 of this report) to be applied)
c) Follow up activities e.g., interviews (refer Section C.3 of this report)
d) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section C.5 of this report)
e) Independent technical review (refer Section B.2 of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidences)
f) Reporting and closure of TR comments/findings (refer Section C.5 of this report) (CARs/CLs/FARs) and final approval for the decision made.
g) Issuance of final verification report to contracted PP (or authorized representatives) and submission of request for issuance, as appropriate.

The two versions of the verification report i.e. a confidential version and the public version are submitted to GS. This version of the verification report is the confidential one and contains the details of local stakeholders interviewed, which is otherwise redacted from the public version.

Verification Conclusion:

Based on the outcome of the verification process of the GS PA "Sütas Tire Biogas Plant" for the monitoring period 22/08/2022 - 31/05/2024 (including both dates), we confirm that the implementation of referenced registered PA is complying with applicable GS4GG rules and regulations as stated in the Monitoring Report (final) version 9.0, dated 30/09/2025/11/. The verification includes confirming the implementation of the project as per description in the PDD/9/, the monitoring plan of the PDD and the application of the monitoring methodology/5/. The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste, version 1.0/5/.

Earthood Services Limited is able to certify that the emission reductions from the registered PA (GS 4817) "Sütas Tire Biogas Plant" for the monitoring period 22/08/2022 - 31/05/2024 (including both dates) amount to 195,515 GS VERs/12/. The verification team also confirms the certified SDG impact of SDG 7 (affordable and clean energy), SDG 8 (decent work and economic growth) and SDG 12 (Sustainable consumption) in terms of the generation of renewable energy, waste treatment and employment during the current monitoring period as a result of the registered project activity. Therefore, this is being submitted for request for issuance of GS VERs, as per GS4GG and UNFCCC procedures.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team members

S. No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings
1.	Team Leader (GS approved auditor)	IR	Mahala	Deepika	Central office	Y	Y	Y	Y

2.	Verifier(GS approved auditor)	IR	Khan	Mohd Aamir	Central office	Y	N	N	Y
3.	Technical Expert (TA 1.1, TA 13.2)	IR	Mahala	Deepika	Central office	Y	Y	Y	Y
4.	Trainee Verifier	IR	Bakir	Nida	Central Office	N	Y	N	Y
5.	Local Expert	IR	Agriman	Kubra	Central Office	N	Y	N	N

B.2. Technical reviewer and approver of the verification and certification report

S. No.	Role	Type of resource	Last name	First name	Affiliation (e.g., name ofcentral or otheroffice of VVB oroutsourced entity)
1.	Technical reviewer (GS approved auditor)	IR	Chaudhary	Anjali	Central Office
2.	Technical Expert to TR (TA 13.2 & TA 1.1)	IR	Chaudhary	Anjali	Central Office
3.	Approver	IR	Singh	Kaviraj	Central office

SECTION C. Means of verification

C.1. Desk/document review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by the assessment team using dedicated protocols (checklists). The assessment team cross checks the information provided in the documents (MR) and information from sources other than those used, if available, and also conducts independentbackground investigations. Earthood conducted a desk review as under:

a) A review of the data and information presented to verify their completeness.
b) A review of the monitoring plan (as described in PDD), the monitoring methodology including applicable tool(s) and, where applicable, the applied standardizedbaseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures
c) A review of calculations and assumptions made in determining the GHG data andemission reductions.
d) An evaluation of data management and the quality assurance and quality controlsystem in the context of their influence on the generation and reporting of emission reductions

The list of documents reviewed during the verification is provided under appendix 3 of this report.

C.2. On-site inspection

Duration of on-site inspection				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	Opening meeting by Team Leader	Republic of Türkiye	22/08/2024	Deepika Mahala, Nida Bakir

2.	Implementation and operation of project activity (project boundary, technology, project equipment, monitoring and metering equipment) as per registered PDD/previous verification.	Republic of Türkiye	22/08/2024-23/08/2024	Deepika Mahala, Nida Bakir
3.	Management and monitoring procedures followed at project site.	Republic of Türkiye	22/08/2024-23/08/2024	Deepika Mahala, Nida Bakir
4.	Physical inspection of the project activity: Site visit and interview of monitoring personnel	Republic of Türkiye	22/08/2024-23/08/2024	Deepika Mahala, Nida Bakir
5.	Management and operational system: Documentation, allocation of responsibilities, qualification and training, data recording &archiving, internal audit and management review and emergency procedures.	Republic of Türkiye	22/08/2024-23/08/2024	Deepika Mahala, Nida Bakir
6.	Compliance of monitoring procedures followed at project site with registered PDD and monitoring methodology.	Republic of Türkiye	22/08/2024-23/08/2024	Deepika Mahala, Nida Bakir
7.	Closing meeting by Team Leader	Republic of Türkiye	23/08/2024	Deepika Mahala, Nida Bakir

In the context of verification, the GS4GG site visit and remote audit requirements and procedures version 2.0 /8/, para 3.1, "At the minimum, the VVB shall conduct physical site visit within two years of the project and once every three years after the first physical site visit".

The validation of the project has been completed through remote audit conducted on 04/10/2021 by Re-Carbon as checked from the validation report/10/.

The registered Project Design Document (PDD) originally stated that the crediting period would begin on 01 June 2022. However, the verification site visit for this monitoring cycle took place much later, between 22 and 23 August 2024. According to paragraph 2.2.2 of the Gold Standard (GS) rule update on the minimum site visit requirements, a Validation and Verification Body (VVB) is not allowed to verify a monitoring period that starts more than two years before the date of the site visit. This means that only emission reductions from up to two years before the site visit (i.e., from 22 August 2022 onward) are eligible to be verified and labelled as Gold Standard Certified Emission Reductions (GSCERs).
Additionally, paragraph 3.3.1.c of the GS Design Change Requirements and Procedures states that if a project's crediting period start date is earlier than the date of design certification, then the start date can be adjusted by up to one year without requiring any justification or formal approval. In this case, the project's design certification was granted on 18 June 2024. Therefore, adjusting the crediting period start date from 01 June 2022 to 22 August 2022 is allowed under the rules, and no further justification or approval is needed.
Thus, the project activity shall be eligible to claim for emission reductions 2 years prior to the date of physical audit.

Level of assurance

All material impact can be confirmed by verifying the supporting documents which are submitted by PD and the implementation and monitoring procedures can be confirmed through interview with the end users, PD representative, O&M team and local stakeholders. Hence, the assessment team can achieve a reasonable level of assurance through physical site visit conducted on the above-mentioned dates.

Thus, following auditing techniques were employed by the assessment team:

- Cross checks between information provided in the PDD/ Monitoring report.
- VVB's sectoral & local expertise.
- Onsite interviews with PP representative, O&M team and farm owners, waste suppliers & consultant
- Cross checks between the information provided by interviewed personnel & information provided in registered documents as well as previous validation documents and supportive documentary evidence.
- Verification and cross checks of time stamped photographic evidence of the project facility including metering equipment provided by the project developer.

Risks associated in planning the verification

No.	Objective of assessment	Assessment of the Risk Risk level	Audit Technique Employed
1.	Review of data flow for generation, aggregation and reporting of monitoring parameters.	Low	On Site interview with monitoring personnel at the site, independent review of documentary evidence and time stamped photographs of the metering equipment provided by the Project Developer. All documents reviewed have been listed in Appendix 3 of the report.
2.	Assessment of the correctness of implementation of procedures for operations and data collection	Low	On site interview with monitoring personnel at the site.
3.	Cross-checking of information provided in MR with other sources	Low	Review of documentary evidence provided by project developer. All documents reviewed have been listed in Appendix 3 of the report.
4.	Assessment of monitoring equipment against the requirements of PDD and approved methodology.	Low	Review of documentary evidence provided by project developer, physical inspection of installed equipments and time stamped photographic evidence provided by project developer. All documents reviewed have been listed in Appendix 3 of the report.
5.	Assessment of calculations and assumptions used to obtain the GHG data and emission reductions	Low	Review of Emission reduction sheet.
6.	Identification of whether the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters	Low	On site interview with monitoring personnel at the site.
7.	Confirm the SDG goals as per PDD/MR	Low	Review of documentary evidence provided by project developer. All

			documents reviewed have been listed in Appendix 3 of the report.
8.	Understanding grievance (if any) from farmers during the monitoring period	Low	On site interview with local stakeholders
9.	Confirm through local stakeholder interviews about the impacts of project activity and the required action taken for their mitigation	Low	On site interview with local stakeholders

To verify the implementation of project activity, 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 PD representative. Therefore, the selected audit techniques were deemed appropriate.

After physical onsite inspection and interviews with the concerned personnel, document reviews & monitoring data submitted by PD; assessment team concluded that the project activity is implemented and operated in-line with the registered PDD/9/. There is no change in the project design or operation and monitoring practices at site which can alter the applicability or additionality of the project activity.

The Assessment team therefore is of the opinion that the project is implemented as described in thePDD/9/ and there is no change in monitoring practices as well as all monitoring parameters as envisaged in the PDD. All the monitored values are supported by the evidence i.e. monitored data logs of different equipment used and found that information provided in the MR is in-line with the submitted evidence. The assessment team confirms that the supportive checked during on site audit were sufficient to conclude the assessment and therefore, the GS Audit Techniques Tool has not been used in line with GS4GG site visit and remote audit requirements and procedures/8/.

C.3. Interviews*

No.	Interviewee			Date	Subject	Team member*
	Last name	First name	Affiliation			
1.	Kara	Muhammet	Senior Facility Manager - ENFAS	22/08/2024 to 23/08/2024	Project activity (Technology, Location and Implementation)	Deepika Mahala & Nida Bakir
2.	Cataltas	Abdullah	Project Manager – ENFAS			
3.	Getin	Soner	Facility Team Leader – ENFAS			
4.	Nephanoglu	Merve	Project Expert GTE			
5.	Akbulut	Mehmet	Trade and Logistics Field Supervisor – ENFAS			

Stakeholders					
6.	[redacted]	[redacted]	Local Shopkeeper		Project Activity and associated benefits and impacts
7.	[redacted]	[redacted]	Tire Organize Sanayi Bölgesi | TOSBİ (TOSBI) Construction Division Chief		Risks and Impacts associated with Project activity
8.	[redacted]	[redacted]	Farm Manager- Cetinel Kardeslar		Stakeholder Feedback, Farm Capacity, Waste collection methods, Engagement terms with project developer
9.	[redacted]	[redacted]	Supplier – Serif Demir Cattle Farm		
10.	[redacted]	[redacted]	Veterinarian/ Farm Manager - İzmir Pasteurized Egg Industries		
11.	[redacted]	[redacted]	Administration Personnel - Omega Milk Agricultural Farm		
12.	[redacted]	[redacted]	Supplier - Hatice Güler Cattle Farm		
13.	[redacted]	[redacted]	Farm Owner - Volkan Güler Poultry Farm		
14.	[redacted]	[redacted]	Farm Owner - Ercanlar Poultry Farm		
15.	[redacted]	[redacted]	Farm Owner - Kamil Doğan Cattle Farm		
16.	[redacted]	[redacted]	General Manager – Cactus Farm		
17.	[redacted]	[redacted]	Isik Yumurta		
18.	[redacted]	[redacted]	Facility Manager - Migros		

*The VVB has conducted the site visit in line with GS4GG "SITE VISIT AND REMOTE AUDIT REQUIREMENTS AND PROCEDURES" version 2.0/8/.

It was confirmed through the onsite interviews that the monitoring personnel received regular and relevant training at the project facility and the local stakeholders were aware of thegrievance register and there were no negative comments received from them. Instead, the local people were appreciative of the project activity and supported the development and creation of jobs through the implementation.

C.4. Sampling approach

The project proponent has not applied any sampling and produced directly monitored data at distinct farms included in the project activity through contractual agreements. However, the assessment team has applied sampling on the population, which considers the 14 farms engaged within project activity across the geographical boundary of Türkiye. The population size considered for sampling is 14 farms which are located across Tire district.

Name of the Farm	Animal Type	2022	2023	2024
Hatice Güler Cattle Farm	Dairy Cattle	1200	1000	1000
Şerif Demir Cattle Farm	Dairy Cattle	2900	2500	2000
Kamil Doğan Cattle Farm	Dairy Cattle	250	230	-
Omega Milk Agriculture Farm	Dairy Cattle	-	2200	2190
Cactus Farm	Dairy Cattle	1200	-	-
Ragyu Farm	Dairy Cattle	1000	-	-
Defne Agriculture	Dairy Cattle	3500	3500	-
Migros	Dairy Cattle	3796	4273	3027
İzmir Province Brood Cattle Farm	Brood Cattle	500	-	-
Çetinel Kardeşler	Dairy Cattle	2190	2230	2440
Total Cattle Number		**16,536**	**15,933**	**10,657**
Ercanlar Poultry Farm	Poultry	1500000	160000	330000
Volkan Güler Poultry Farm	Poultry	155000	153000	162000
Işık Yumurta	Poultry	700000	310000	-
İzmir Pasteurized Egg Ind.	Poultry	99500	105300	94700
Total Poultry Number		**24,54,500**	**7,28,300**	**5,86,700**

**cells with "-" entry represents nonparticipation of farms in the corresponding year*

Segregation based on Type of Farm

There are two types of livestock farms considered in the project activity which are dairy cattle farms and poultry farms. Out of 14, there were 10 dairy cattle farms and 4 poultry farms. The segregated list is presented below:

Cattle Farm	Total Number of Livestock
Hatice Güler Cattle Farm	3200
Şerif Demir Cattle Farm	7400
Kamil Doğan Cattle Farm	480
Omega Milk Agriculture Farm	4390

Cactus Farm	1200
Ragyu Farm	1000
Defne Agriculture	7000
Migros	11096
İzmir Province Brood Cattle Farm	500
Çetinel Kardeşler	6860

Poultry Farm	**Total Number of Livestock**
Ercanlar Poultry Farm	1990000
Volkan Güler Poultry Farm	470000
Işık Yumurta	1010000
İzmir Pasteurized Egg Ind.	299500

Segregation based on number of Livestock

The segregation of livestock based on number of livestock provided by cattle farms and poultry farms was attained through average of the total number of livestock provided by each farm throughout the monitoring period. The average poultry livestock provided by 4 poultry farms throughout monitoring period is 195567, which was well delivered by each farm. Therefore, no segregation was required. However, for dairy cattle farms, two groups were made out of 10 farms based on the number of livestock in the farms that are considered in the project activity. The average cattle livestock provided per farm throughout monitoring period is 4312, therefore two groups were made out of 10 cattle farms as presented below:

Group A (Total Number of Livestock >4000/farm)	**Group B (Total Number of Livestock <4000 animals/farm**
Şerif Demir Cattle Farm	Hatice Güler Cattle Farm
Omega Milk Agriculture Farm	Kamil Doğan Cattle Farm
Defne Agriculture	Cactus Farm
Migros	Ragyu Farm
Çetinel Kardeşler	İzmir Province Brood Cattle Farm

The assessment team has applied the confidence/precision level of 90/30 on the population of 14 farms, contracted by the PD, which are scattered across Türkiye. The sample size determined was 6 based on statistical parameters (90/30). However, verification team covered 8 farms (6 cattle farms and 2 poultry farms), during the on-site audit. Furthermore, out of total 14 farms included in the project, 6 farms were same as the list provided during design certification, while 8 new farms were included in the performance certification. Therefore, in order to assess the baseline scenario for the farms included during design certification and new farms, out of 6 cattle farms, 3 farms each from old and new farms were selected. Similarly, out of 2 poultry farms, 1 farm each from old and new farms was selected.

The minimal sample size as the outcome of applied sampling approach was 8 farms. However, in

addition to these 8 farms, additional farms were also visited during the site inspection to comply with the methodological requirement where farms corresponding to ≥900 tCO_2 baseline emissions are required to be visited by VVB. The list of farms visited during onsite inspection is provided below:

S. No.	Stakeholders Interviewed		Designation	Farm Name
1.	Kepir	Ali Raza	Farm Manager	Çetinel Kardeşler
2.	Ozdemir	Onur	Facility Manager	Migros
3.	Demir	Nezir	Supplier	Şerif Demir Cattle Farm
4.	Kartaltepe	Berksan	Veterinarian/ Farm Manager	İzmir Pasteurized Egg Ind.
5.	Gokoglu	Volkan	Administration Personnel	Omega Milk Agricultural Farm
6.	Guler	Nazif	Supplier	Hatice Güler Cattle Farm
7.	Guler	Sinem	Farm Owner	Volkan Güler Poultry Farm
8.	Dogan	Savas	Farm Owner	Ercanlar Poultry Farm
9.	Dogan	Kamil	Farm Owner	Kamil Doğan Cattle Farm
10.	Kemal	Mustafa	General Manager	Cactus Farm
11.	Aktan	Serkan	Company Partner	Işık Yumurta

Out of 14 farms contributing to project activity, 11 farms were visited while the remaining 03 farms viz. Ragyu Farm, Defne Agriculture and Izmir Province Brood Cattle farms were not accessible during on site audit on 22/08/2024 -23/08/2024, as these farms were no longer in contractual agreement with the PD. These three farms did not contribute to the project activity for year 2024. However, the contractual agreements with these farms were thoroughly verified during the site inspection, in accordance with the methodology requirement "DOEs must perform site visits on the central treatment plant during project verification," and that "all documentation referring to every farm must be available during the verification (e.g., sales records, feed formulation, etc.). However, DOEs are not required to perform site visits at all farms within the project boundary."

Since, all the 14 farms resulted into >900t CO_2 baseline emissions, VVB, in addition to sampled 8 farms, visited a total of 11 farms during onsite audit. Out of the remaining three farms, Ragyu farm was originally included in the design certified PDD for which the baseline was already established during design certification. The baseline scenarios for Defne Agriculture and Izmir Province Brood Cattle farms were cross verified through the satellite images, with the presence of anaerobic lagoon in the farm premises along with the contractual agreements and sales records to comply with the monitoring methodology/5/.

Following information was checked for each sampled farm during on-site audit/46/:

- Animal Inventory & Management: The procedures and records pertaining to inventory management were checked. It has been found that all the sampled farms appropriately maintained livestock inventory.
- Manure Management: The farms owners and suppliers were interviewed regarding the manure management practices in the baseline scenario, and it was established that before implementation of project activity, the animal manure was left to decay in anaerobic lagoons. The neighbouring farms, not included in the project activity were also checked for manure management practices and it was observed that the animal manure was collectively disposed to anaerobic lagoons present in the vicinity of the neighbouring farms.
- Engagement terms with project developers: The interviewed personnels were asked about the awareness regarding the project activity and related concerns. The nature of engagement with project developer was also questioned and the contracts were checked.

C.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	-	CAR02	-
Compliance of the project implementation and operation with the registered PDD	-	CAR04	FAR04*
Post-registration changes	-	CAR01	FAR02**, FAR05*
Compliance of the registered monitoring plan withthe methodologies including applicable tools and standardized baselines	CL01	-	-
Compliance of monitoring activities with theregistered monitoring plan	-	CAR03	FAR02**
Compliance with the calibration frequency requirements for measuring instruments	CL02	-	-
Assessment of data and calculation of emission reductions or net removals	-	CAR05, CAR06, CAR07	-
Assessment of data and calculation of SDGimpacts	-	-	FAR07*, FAR08*
Assessment of reported sustainable development co-benefits	-	-	FAR06*
Local stakeholder consultation	-	-	FAR01**, FAR09*
Safeguarding Principles	-	-	-
Others	-	-	FAR03*
Total	02	07	09

*FAR from GS4GG design review
** FAR from validation report

SECTION D. Verification findings

D.1. Compliance of the monitoring report with the monitoring report form

Means of verification	VVB checked from the Gold Standard website that the prescribed form has been used for preparing the Monitoring Report/11/. The PD used the Gold Standards for Global Goals latest MR template version 1.1/15/ available on the GS webpage and all the details were filled as per the MR template guidelines.

Findings	CAR 02 was raised and resolved.
Conclusion	The verification team confirms the compliance of the monitoring report with the latest version of the GS monitoring report template/15/ and the instructions therein for filling out the form.

D.2. Remaining forward action requests from validation and/or previous verifications

There are 02 FARS raised from validation/10/ which were resolved during the current MP. Additionally, there were 07 FARs raised from GS Design Review which were successfully resolved during the current verification assessment.

D.3. Compliance of the project implementation with the registered project design document

Means of verification	The project is owned by ENFAS Enerji Elektrik Üretim A.Ş., a subsidiary of SUTAS Group, a leading company in Turkey's dairy products sector. SUTAS Group also operates several cattle farms that supply milk to their production facilities of milk products. In addition, SUTAS group also engages with several independent farms through contractual agreements. The project activity is located in İzmir province and aims to provide an environmentally friendly solution to manure management. The ownership and location have not changed since the registration as confirmed from the registered PDD/9/. The location of all farms and the central waste treatment was checked through get geo coordinate application/24/ during the site visit/46/. There are multiple cattle farms located near the plant, and manure from these farms is utilized in a biogas plant to generate electricity. The byproducts from the digestion process are then used as fertilizer on nearby agricultural land This project involves a biogas-to-energy initiative that generates renewable energy by capturing biogas from cattle manure, chicken manure, and agricultural waste through anaerobic digestion. The biogas is then used to produce thermal and electrical energy via cogeneration systems. Prior to this project, cattle and chicken manure at the farms were managed using lagoons, and agricultural waste was left on the fields. The project's approach to managing cattle and chicken manure aligns with the applied methodology, which is relevant to manure management on one or multiple livestock farms. The existing anaerobic manure treatment system within the project boundary has been replaced by one animal waste management systems (AWMSs) that result in lower GHG emissions. The handling of agricultural waste complies with the applied methodology, which states that in cases of co-digestion, if it cannot be shown that the organic matter would have decayed anaerobically, baseline emissions for that matter should be considered zero. However, the baseline scenario for current project activity is the disposal of organic waste (manure and agricultural waste) generated in the farms into the anaerobic lagoons, leading to significant emissions which were accounted thereof. Therefore, the organic waste which was disposed of in anaerobic lagoons in the baseline scenario, is used for biogas and energy generation in the project activity. During the monitoring period, the SÜTAS Tire Biogas Plant processed 168,372 tonnes of manure waste/12/. The biogas produced from the degradation of organic wastes is used to

generate electricity and heat in a cogeneration unit. The project's installed capacity is 4.380 MWm / 4.268 MWe (with four gas motors, 4 x 1.067 MWe, license dated 01/09/2016/34/. During the monitoring period, 31,051 MWh of electricity and 25,435 tonnes of steam were generated and delivered, resulting in an emission reduction of 195,515 tCO2, with an annual average reduction of 115,989 tCO2/12/.

Implemented Technology:

The project employs "Mesophilic" technology to convert cattle manure, chicken manure, and agricultural waste into biogas at an optimal temperature of 37°C. The process involves mixing and hydrolyzing the manure to break down organic bonds, generating biogas, which is then fed into a cogeneration unit to produce both heat and electricity. The electricity generated is supplied to the national grid, while the heat is utilized in the dairy plant. The final product, a biologically enriched fertilizer, is stored for agricultural use/9/47/.

Anaerobic digesters made from steel, lined concrete, or fiberglass, along with a gas-holding system, are used in the project. The digesters are hermetically sealed in reinforced concrete pools, with gas tanks positioned at the top to store the generated biogas. The reactor's contents are mixed intermittently with submersible mixers to save energy, and all parts in contact with biogas are coated with epoxy paint to prevent corrosion. Thermal insulation is applied to minimize heat loss/47/.

Manure collected from farms is transported in sealed trucks and immediately transferred to a raw material pond. It is then fed into fermenters via leak-proof pipes, where biogas is captured and sent to cogeneration units to produce electricity and heat. The remaining sludge is processed into fertilizer, which is stored on-site and later distributed to local farmers.

The system comprises following units:

Waste Collection: Weighbridge, data control/storage

Waste Preparation/Feed: Equalization tank, vegetative waste stock area, central pumping system

Anaerobic Digestion: Digesters, gas storage, desulfurization, early warning, temperature control

Cogeneration: Gas treatment, flare

Fertilizer Processing: Post-digestion tanks, hygienization, separator

Automation and Storage: Liquid and solid fermented storage areas

This project, a Greenfield initiative in the region, transforming manure and agricultural waste into renewable energy and fertilize baseline scenario where which replaces, manure was released into natural water bodies or stored in lagoons, and there was no biogas generation/47/. The same was confirmed through interviews with local stakeholders during onsite audit/46/.

Key Equipment name plate of gas engines/36/ and technical specification of operational and monitoring equipment/35/ were checked during the audit:

S. No.	Equipment	Specifications
Operational Equipment		
1.	Gas Engines- Number of Engines: 4	Supplier Company: Jenbacher Gas Engines Type: JMS 320 GS Production Year: 2016 Fuel Gas Type: Biogas

			Electricity Output: 1067 kW (full load) ISO Standard Power (Mechanical Output): 1095 kW (full load) Speed: 1500 rpm/min Gas Volume: 443 Nm3/h (full load) Electrical Efficiency: 40.2% (full load) Thermal Efficiency: 25.3% (full load) Total efficiency: 65.5(%) (full load)
	2.	Heat boilers Number of Boilers: 4	Supplier Company: MNK Energy Waste Heat boiler Type: Smoke Tube Type Waste Heat Boiler Production Year: 2016 Test Pressure: 22.6 Bar Operation Pressure: 10 Bar Design Pressure: 14 Bar Max. Heat Power: 412 kw Volume: 2,700 liter Standard: EN 12953
	4.	Transmitter Unit: Number of units: 2	Compact, aluminium coated: Aluminium, AlSi10Mg, coated • Compact, stainless: For maximum corrosion resistance: stainless steel 1.4404 (316L) Configuration: • External operation via four-line, illuminated local display with touch control and guided menus ("Make-it-run" wizards) for applications • Via operating tools (e.g. FieldCare)
	5.	Sensor Number of units: 2	Range of nominal diameter: DN 50 to 200 (2 to 8") • Materials: – Sensor: Stainless steel 1.4404 (316L), cold worked Stainless steel 1.4435 (316L), cold worked – Process connections: Stainless steel 1.4301 (304), Stainless steel 1.4306 (304L), Stainless steel 1.4404 (316L), Steel S235JR, Carbon steel A105
	6.	Flare unit Number of units: 1	Model and Brand: C-nox environmental engineering Year of manufacture: 2016 Flare Type: NTV 3.6 S Firing capacity: 3600 kW Volume flow max: 550 Nm3/h Biogas heating value: 6.4 kWh/m3

			Max flow pressure in front of flare: 120 mbar Min flow pressure in front of flare: 50 mbar Biogas temperature: < 140 °C Combustion temperature (approximately): 850 °C Fuel gas admission pressure min, and max: 5 mbar and 30 mbar Fuel gas temperature: 35 Celcius Exhaust gas temperature, max: 800 Celcius
	7.	Biogas Digester Units Number of units – 6 (one of these serves as mixing tank)	Type: vertical, cylindrical Volume: 5,720 m3/digester Wet volume: 5,150 m3/digester Material: Concrete, polyurethane for heat isolation, B2 class fireproof and isolation for corrosion
	Monitoring Equipment		
	1.	Biogas Meter: Number of units: 2	Flow meter at cogeneration Entrance Brand: Endress+Hauser Type: Proline t-mass 65 DN175 Serial number: L711FB02000 Accuracy: ±1.5% of reading Description Flow meter located at anaerobic digesters exit Brand: Endress+Hauser Type: Proline t-mass 65 DN397 Serial number: L80E2D02000 Accuracy: ±1.5% of reading
	2.	Steam Meter	Description: Steam meter Brand: Endress+Hauser Serial number: M603B119000 Accuracy: ±0.75% of the volume flow Permissible Error: ±1.00 %
	3.	Gas Analyzer	Brand: MRU Type: Optima 7 Biogas Serial number: 323641 Measuring range: CH4: 0-100% CO2: 0-100% H2S: 0-2,000/5,000 ppm Accuracy: ±0.3% of reading for CH4 and CO2 ±5ppm for H2S

	4.	Electricity Meter	Description: Main Meter (Bidirectional) Brand: Elster Type: A1500 CEB Serial number: 480922 Accuracy Class 0.5S Description: Spare Meter Brand: Elster Type: A1500 CEB Serial number: 480923 Accuracy Class 0.5S
	Operational lifetime of project activity is estimated as 11 years starting with 01/09/2016 based on the date given in license till 31/08/2027/34/. ▪ The details of each of the above equipment were found to be consistent with their respective nameplates as observed onsite. ▪ The project activity is consistent with the description given in the revised and approved PDD/9/. ▪ All the monitoring points/equipment used in project activity are assessed in detail under section E.6.2. of this report which is relevant for each of the parameters. ▪ On site interviews of the personnel reveals that all the QA/QC procedures listed in the PDD/9/ has been applied while the operation of the project activity was confirmed through the document review The achieved emission reductions during the current MP (22/08/2022 - 31/05/2024) are 195,515 tCO_2e.		
Findings	CAR04 and FAR04 were raised and resolved.		
Conclusion	• In view of the information's verified through the on-site assessment, the verification team can confirm that all physical features (technology, project equipment, and monitoring and metering equipment) of the registered GS project activity were in place and that the project participants have operated the project activity as per the PDD/9/ during the concerned monitoring period. • Achieved emission reduction are lower as compared to estimated emission reduction in-line to PDD/9/ and it is assessed under section E.8.6. of this report. • The emission reductions achieved during the current monitoring period is 195,515 tCO_2e which is lower than the estimated quantity (206,361 tCO_2e) in the PDD/9/ for the comparable period. Justification for the acceptance of same has been given in further sections (E.8.6) of this report.		

D.4. Post-Design Certification changes

D.4.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

Not Applicable

D.4.2. Corrections

Not Applicable

D.4.3. Changes to start date of crediting period

Paragraph 3.3.1.c of the GS Design Change Requirements and Procedures states that if a project's crediting period start date is earlier than the date of design certification, then the start date can be adjusted by up to one year without requiring any justification or formal approval. In this case, the project's design certification was granted on 18 June 2024. Therefore, adjusting the crediting period start date from 01 June 2022 to 22 August 2022 is allowed under the rules, and no further justification or approval is needed.

D.4.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

Not Applicable

D.4.5. Changes to project design of approved project

Not Applicable

D.5. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

Means of verification	The monitoring plan as contained in the PDD/9/ was reviewed against the monitoring requirements of the applied methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste/5/. Based on this review it was found the monitoring plan contained in the PDD/9/ includes all the required parameters to be monitored in the context of project design and description and allows proper determination of emission reductions in accordance with the PDD /9/ and applied methodology, The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste /5/.
Findings	CL01 was raised and resolved
Conclusion	The monitoring plan outlined in the PDD/9/ is in accordance with the applied methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste/5/ and correctly applied by the registered project activity.

D.6. Compliance of monitoring activities with the registered monitoring plan

D.6.1. Data and parameters fixed ex ante or at renewal of crediting period

Global Warming Potential value for methane, GWP_{CH4} tCO2/tCH4

Means of verification	The MR/11/ applies a value of 28. The applied value of GWP was found to be appropriate as it was sourced from the fifth assessment report of IPCC/22/.
Findings	FAR02 was raised and resolved
Conclusion	The value applied was found to be consistent with the source of data and PDD/9/.

Methane conversion factor, MCF_j

Means of verification	Default value of 0.71, sourced from 2019 IPCC Refinement/22/, Table 10.17, p. 10.74 has been applied. The source gives a value of 76%,

	however a conservative factor of 0.94 is applied to account for the uncertainty. The value has been determined in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	FAR 02 was raised and resolved
Conclusion	The value applied was found to be consistent with the applied methodology requirements/5/ and monitoring plan in PDD/9/.

Default emission factor for the fraction of CH_4 produced that leak from the anaerobic digester, $EF_{CH4,default}$, t CH4 leaked / t CH4 produced

Means of verification	Default value of 0.028 sourced from Tool 14: Project and leakage emissions from anaerobic digesters/21/ has been applied as the Digesters with steel or lined concrete or fiberglass digesters and a gas holding system (egg shaped digesters) and monolithic construction have been used. The manufacturer's specification of the digesters contained in Tire Feasibility Report/47/ were checked to confirm the same. The parameter has been determined correctly in line with the Tool 14/21/ as prescribed by the applied methodology/5/ has been used in the ER sheet/12/.
Findings	CL01 was raised and resolved
Conclusion	The value applied was found to be consistent with the monitoring plan in PDD/9/.

Density of CH_4, D_{CH4}, t/m^3

Means of verification	Default value of 0.00067 t/m^3 has been applied in line with the applied methodology/5/ and has been used in the ER sheet/12/.
Findings	No findings were raised
Conclusion	The value applied was found to be consistent with the PDD/9/.

Annual volatile solid excretions for livestock LT entering all AWMS on a dry matter weight basis (For chicken manure), VS_{LT}, kg dm/animal/year

Means of verification	Default value of 7.30 sourced from IPCC 2006 vol.4, chapter 10, Table10A-9(Chicken-layer) (0.02 kg/hd/day)/22/ has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	FAR 02, CAR 05, and CAR 06 were raised and resolved
Conclusion	The value applied and its source mentioned were found to be consistent with the PDD/9/.

Annual volatile solid excretions for livestock LT entering all AWMS on a dry matter weight basis (For cattle manure), VS_{LT}, kg dm/animal/year

Means of verification	Default value of 1,642.5 sourced from IPCC 2006 vol.4, chapter 10, Table10A-9(Dairy cows eastern Europe) (4.5 kg/hd/day)/22/ has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	FAR 02, CAR 05 and CAR 06 were raised and resolved
Conclusion	The value applied and its source mentioned were found to be consistent with the PDD/9/.

Grid emission factor, $EF_{grid,CM,y}$ ton CO_2/MWh

Means of verification	Default value of 0.5706 sourced from country specific data (Turkey national grid) has been applied in line with the applied methodology/5/ The Turkish national grid data has been used in the ER sheet/12/.
Findings	FAR02 was raised and resolved
Conclusion	The value applied was found to be consistent with the PDD/9/.

Flare efficiency, $\eta_{flare,m}$, %

Means of verification	Default value of 50%, sourced from Tool 6: Project emissions from flaring/18/, has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	No findings were raised
Conclusion	The value applied was found to be consistent with the PDD/9/.

The efficiency of boilers, ηBL,thermal, %

Means of verification	Default value of 92% sourced from TOOL09: Determining the baseline efficiency of thermal or electric energy generation systems/23/, has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	No findings were raised
Conclusion	The value applied was found to be consistent with the PDD/9/.

The CO2 emission factor of the fossil fuel that would have been used in the baseline plant, $EF_{CO2,BL,HG,k}$, tCO_2/TJ

Means of verification	Default value of 54.30 sourced from IPCC 2019 Refinement, Chapter 2, Volume 2, Table 2.2, Default emission factors for stationary combustion in the energy industries/22/ has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	No findings were raised
Conclusion	The value applied was found to be consistent with the PDD/9/.

D.6.2. Data and parameters monitored

Parameters T_{EGm} and $Flare_m$ have not been reported as no flaring was done during the current MP as confirmed during onsite audit through inspection of operational status of flaring unit and integrated biogas flow meter data/32/.

Electricity generated using biogas in year y, $EG_{d,y}$, MWh

<table>
<tr><td rowspan="4">Means of verification</td><td>Criteria/Requirements</td><td>Assessment/Observation</td></tr>
<tr><td>Measuring/Reading /Recording frequency</td><td>Although the PDD mentions the frequency of the parameter as annual, however the parameter is Continuously monitored (aggregated and recorded monthly) in line with the monitoring plan in registered PDD/9/ and monitoring report/11/.</td></tr>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes</td></tr>
<tr><td>Monitoring equipment</td><td>Parameter is monitored with Energy meters /35(b)/.
<table>
<tr><td>Description</td><td>Main Meter (Bidirectional)</td><td>Spare Meter</td></tr>
<tr><td>Brand</td><td>Elster</td><td>Elster</td></tr>
<tr><td>Type</td><td>A1500</td><td>A1500</td></tr>
<tr><td>CEB Serial number</td><td>480922</td><td>480923</td></tr>
<tr><td>Previous Calibration</td><td>14/10/2016</td><td>14/10/2016</td></tr>
<tr><td>Subsequent Calibration</td><td>14/10/2026</td><td>14/10/2026</td></tr>
</table></td></tr>
</table>

		<table><tr><td>Calibration Frequency</td><td>10 years</td><td>10 years</td></tr><tr><td>Calibration Status</td><td>Calibrated</td><td>Calibrated</td></tr><tr><td>Accuracy Class</td><td>0.5S</td><td>0.5S</td></tr></table> The meters comply with Energy Market Regulatory Authority (EPDK) regulations which define the accuracy class of the meters as 0.2 or 0.5 depending on the capacity of the circuit/25/. All the meters in use during the monitoring period were found to be in calibration. Details of calibration provided in the Monitoring report were found to be consistent with original calibration certificates/29/ and observations made during on-site visit/46/.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Accuracy of the equipment is +0.5% for both main meter (Bidirectional) and for spare meter consistent with technical specification document/35/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy class is valid for entire range
	Calibration frequency /interval:	Yes. Calibration is valid for 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. Calibration is valid for 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.

	Is the calibration of measuring equipment carried out by an accredited person or institution?	The electricity meters have been inspected, calibrated and sealed by TOSBI as confirmed from the partial acceptance document for gas engines/33/.
	Is(are) calibration(s) valid for the whole reporting period?	Please refer to section D.7 and appendix 5. All the energy meters were found to be in calibration during the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes, calibration is carried out for a measuring range comparable with the range for which measurements have been carried out.
	How were the values in the monitoring report verified?	The value was found to be the following: **Year** | **Value (MWh)** 2022 | 5,496 2023 | 17,907 2024 | 7,648 Total | 31,051 The values were consistently mentioned in the MR/11/ and ER sheet/12/ and were confirmed from the Invoices issued by TEIAS - EPAIS/26/. This is to clarify that there are two flowmeters installed at the project site. One flow meter is installed at the exit of the wastewater treatment plant (S. No. L711FB02000) for quantifying the biogas from the treatment plant, while another one is installed at the entrance of cogeneration unit (S. No. L80E2D02000) for quantifying total biogas entering the gas engine. The biogas flow from anaerobic digester was calculated by subtracting the wastewater treatment plant biogas flow from total biogas flow values. Therefore, electricity generation values resulting from wastewater treatment plant biogas were discounted. VVB has checked the MRV procedures, SCADA records during the onsite audit and cross checked the quantification trail in the ER sheet and confirms that only the biogas flow values from digesters are considered in the project activity.
	If applicable, has the reported data been cross-checked with other available data?	The values were also cross-checked from the Plant log sheets during the on-site inspection/27/. The electricity generation values, and the biogas generation values show linear correlation with a significant similar ratio ranging from 0.0021 MWh/m^3 to 0.0023 MWh/m^3 throughout the monitoring period.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management system was found to be reliable and appropriate.

	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues observed
Findings	CL02 was raised and resolved	
Conclusion	Through on-site visit and interviews by the team and assessment of documents, VVB can conclude that: • The equipment used for monitoring parameter is calibrated by the TOSBI at a frequency specified in the applied monitoring methodology and registered monitoring plan. • Monitoring results are consistently recorded as per approved frequency • QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, CDM Validation and Verification Standard version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.	

Net quantity of heat with biogas by equipment type k in the project t in year y, HGpj,k,y, TJ.y

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring/Reading /Recording frequency	The parameter is continuously monitored and recorded daily in line with the monitoring plan in registered PDD/9/ and monitoring report/11/.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	Parameter is monitored with steam meter/35/.

Description	Steam meter
Brand	Endress+Hauser
Serial number	M603B119000
Previous Calibration	08/06/2017
Subsequent Calibration	08/06/2027
Calibration Frequency	10 years
Calibration Status	Calibrated
Accuracy	±0.75% of the volume flow
Permissible Error	±1.00 %

		All the meter in use during the monitoring period were found to be in calibration. Details of calibration provided in Monitoring report were found to be consistent with original calibration certificates /30/ and observations made during on-site visit.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy class of ±0.75% % for steam flow meter is consistent with the technical specification sheet/35/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy class is valid for entire range
	Calibration frequency /interval:	Yes. Calibration is valid for 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. Calibration is valid for 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration has been carried out by Endress+Hauser as verified through calibration certificates/30/.
	Is(are) calibration(s) valid for the whole reporting period?	Please refer to section D.7 and appendix 5. All the flow meters were found to be in calibration during the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have	Yes, calibration is carried out for a measuring range comparable with the range for which measurements have been carried out.

<table>
<tr><td></td><td>been carried out?</td><td></td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The value was found to be the following:
<table><tr><th>Year</th><th>Value (TJ)</th></tr><tr><td>2022</td><td>11.28</td></tr><tr><td>2023</td><td>34.81</td></tr><tr><td>2024</td><td>14.07</td></tr><tr><td>Total</td><td>60.17</td></tr></table>
The parameter HGpj,k,y is calculated as guided by the methodology “Calculated on the basis of measurement of the volume of biogas captured and used for heat generation by each heat generation equipment type k multiplied by the methane content of the gas, net calorific value of methane, and the efficiency of heat generation equipment type k during the project (i.e. with biogas)”.
The total amount of steam delivered to dairy facility was quantified as tons/year and the corresponding heat generation was further calculated by considering the factors defined by methodology, and difference in enthalpy of input and output steam was considered as the efficiency of the heating equipment (in terms of kj heat produced per kg of steam), used in the project activity.</td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The parameter is measured by monitoring the Amount of heat energy transferred to the dairy facility via computerized system which is connected to the CHP unit. Additionally, PDD/9/ states that that temperature or pressure is not monitored as the system gives a normalized measurement. Thus, the values were also cross-checked from the Plant log sheets/31/ and heat sales agreement/48/ during the on-site inspection.</td></tr>
<tr><td></td><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>Data management system was found to be reliable and appropriate.</td></tr>
<tr><td></td><td>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</td><td>No such issues observed</td></tr>
<tr><td>Findings</td><td colspan="2">CL02 was raised and resolved</td></tr>
<tr><td>Conclusion</td><td colspan="2">Through on-site visit and interviews by the team and assessment of documents VVB can conclude that:</td></tr>
</table>

	• The equipment used for monitoring of parameter is calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan. • Monitoring results are consistently recorded as per approved frequency • QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, CDM VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.

Reduction of CO2 emissions due to the proposed project activity's implementation, Emissions Reductions in tCO2, tCO_2

Means of verification	The project is calculated on annual basis by deducting project emissions from baseline emissions and calculation for the same was checked in the ER sheet/12/ and found to be correct and in line with the applied methodology/5/. The verified values for the current MP are as following:

Year	**Value (tCO2e)**
2022	63,140
2023	103,254
2024	29,121
Total	**195,515**

Findings	CAR 06 was raised and resolved
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent and are estimated in line with the monitoring plan outlined in the PDD/9/. The calculated value is correct and justified.

Biogas Flow, Vf (coming from wastewater treatment plant), m^3

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring/Reading /Recording frequency	The parameter is monitored continuously by flow meter and reported cumulatively on weekly basis
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	The Parameter is monitored with gas flow meters /35/.

Description	Flow meter at WWTP Line
Brand	Endress+Hauser
Type	Proline t-mass 65 DN175
Serial number	L711FB02000
	±1.5% of reading

		<table><tr><td>Accuracy</td><td></td></tr><tr><td>Calibration date</td><td>24/08/2016</td></tr><tr><td>Subsequent Calibration</td><td>24/08/2026</td></tr></table> The meter in use during the monitoring period was found to be in calibration. Details of calibration provided in Monitoring report were found to be consistent with original calibration certificates /30/ and observations made during on-site visit.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy class of ±1.5% of reading for gas flow meter is consistent with the technical specification sheet/35/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy class is valid for entire range
	Calibration frequency /interval:	Calibration frequency is 10 years after initial calibration as per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. Calibration is valid for 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration has been carried out by Endress+Hauser as verified through calibration certificates/30/.
	Is(are) calibration(s) valid for the whole reporting period?	Please refer to section D.7 and appendix 5. All the flow meters were found to be in calibration during the current monitoring period.

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes, calibration is carried out for a measuring range comparable with the range for which measurements have been carried out.</td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The parameter is determined through Computerized monitoring of flow meter data for the whole system including pressure and temperature of the gas.

The verified value was found to be the following:
<table><tr><th>Year</th><th>Value (m3)</th></tr><tr><td>2022</td><td>422,608</td></tr><tr><td>2023</td><td>1,235,205</td></tr><tr><td>2024</td><td>508,693</td></tr><tr><td>Total</td><td>2,166,506</td></tr></table>
There are two flowmeters installed at the project site. One flow meter is installed at the exit of the wastewater treatment plant (S. No. L711FB02000) for quantifying the biogas from the treatment plant, while another one is installed at the entrance of cogeneration unit (S. No. L80E2D02000) for quantifying total biogas entering the gas engine. The biogas flow from anaerobic digester was calculated by subtracting the wastewater treatment plant biogas flow from total biogas flow values. Therefore, the biogas flow and related electricity generation values were discounted. VVB has checked the MRV procedures, SCADA records during the onsite audit and cross checked the quantification trail in the ER sheet and confirms that only the biogas flow values from digesters are considered in the project activity.</td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The total biogas amount and corresponding electricity and heat generation is monitored and the ratio of “Biogas from WWTP/total biogas” is multiplied with the total electricity and heat generation data to find out and exclude the electricity and heat generated belonged to biogas from WWTP line and corresponding CO2 amount (Reference: ER sheet- ER Calculations_Tire Biogas_VER_V6/Worksheet – Production).</td></tr>
<tr><td></td><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>Data management system was found to be reliable and appropriate.</td></tr>
<tr><td></td><td>In case project participants have temporarily not monitored the parameter, has either i) a deviation been</td><td>No such issues observed</td></tr>
</table>

	approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	
Findings	CL 02 and CAR 07 were raised and resolved	
Conclusion	Through on-site visit and interviews by the team and assessment of documents VVB can conclude that: • The equipment used for monitoring of parameter is calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan. • Monitoring results are consistently recorded as per approved frequency • QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, CDM VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.	

Biogas (total biogas goes to gas engines), Vf, m³

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring/Reading /Recording frequency	The parameter is monitored continuously by flow meter and reported cumulatively on weekly basis
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	Parameter is monitored with gas flow meters installed at WWTP line and anaerobic digester line/35/. Description: Flow meter located at anaerobic digesters exit Brand: Endress+Hauser Type: Proline t-mass 65 DN397 Serial number: L80E2D02000 Accuracy: ±1.5% of reading Calibration date: 22/05/2019 Subsequent Calibration: 22/05/2029 Description: Flow meter at WWTP Line Brand: Endress+Hauser Type: Proline t-mass 65 DN175 Serial number: L711FB02000 : ±1.5% of reading

		<table><tr><td>Accuracy</td><td></td></tr><tr><td>Calibration date</td><td>24/08/2016</td></tr><tr><td>Subsequent Calibration</td><td>24/08/2026</td></tr></table> All the meters in use during the monitoring period were found to be in calibration. Calibration details provided in Monitoring report were found to be consistent with original calibration certificates /30/ and observations made during on-site visit.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy class of ±1.5% of reading for gas flow meter is consistent with the technical specification sheet/35/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy class is valid for entire range
	Calibration frequency /interval:	Calibration frequency is 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. Calibration is valid for 10 years after initial calibration per Measurement and Measuring Instruments Inspection Regulation published by Republic of Turkey, Legislation information system/28/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration has been carried out by Endress+Hauser as verified through calibration certificates/30/.
	Is(are) calibration(s) valid for the whole reporting period?	Please refer to section D.7 and appendix 5. All the flow meters were found to be in calibration during the current monitoring period.

<table>
<tr><td>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</td><td>Yes, calibration is carried out for a measuring range comparable with the range for which measurements have been carried out.</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The parameter is determined through Computerized monitoring of flow meter data for the whole system including pressure and temperature of the gas.

The verified value was found to be the following:
<table><tr><th>Year</th><th>Value (m3)</th></tr><tr><td>2022</td><td>3,076,833</td></tr><tr><td>2023</td><td>10,522,856</td></tr><tr><td>2024</td><td>4,377,741</td></tr><tr><td>Total</td><td>17,977,430</td></tr></table>
There are two flowmeters installed at the project site. One flow meter is installed at the exit of the wastewater treatment plant (S. No. L711FB02000) for quantifying the biogas from the treatment plant, while another one is installed at the entrance of cogeneration unit (S. No. L80E2D02000) for quantifying total biogas entering the gas engine. The biogas flow from anaerobic digester was calculated by subtracting the wastewater treatment plant biogas flow from total biogas flow values. Therefore, the biogas flow and related electricity generation values were discounted. VVB has checked the MRV procedures, SCADA records during the onsite audit and cross checked the quantification trail in the ER sheet and confirms that only the biogas flow values from digesters are considered in the project activity.</td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The total biogas amount and corresponding electricity and heat generation is monitored and the ratio of “Biogas from WWTP/total biogas” is multiplied with the total electricity and heat generation data to find out and exclude the electricity and heat generated belonged to biogas from WWTP line and corresponding CO2 amount.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>Data management system was found to be reliable and appropriate.</td></tr>
<tr><td>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1</td><td>No such issues observed</td></tr>
</table>

	to the CDM Project Standard?	
Findings	CL02 and CAR07 were raised and resolved	
Conclusion	Through on-site visit and interviews by the team and assessment of documents VVB can conclude that: • The equipment used for monitoring of parameter is calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan. • Monitoring results are consistently recorded as per approved frequency • QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.	

The flow rate of the residual gas to the flare, FRG,m, m^3

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring/Reading /Recording frequency	The parameter is monitored continuously by flow meter and reported cumulatively on weekly basis
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	Parameter is to be monitored with gas flow meter equipped with flare equipment/35(b)/. The technical details of flaring unit are provided below: Description: Flare Unit Brand: C-nox Type: NTV 3.6S Serial number: P001121 Firing Capacity: 3600 kW Volume maximum flow: 550 Nm3/h Flow pressure max: 120 mbar Flow pressure min: 50 mbar Combustion temperature: 850 °C Year of manufacture: 2016 However, the flaring unit installed within project site was not operational throughout the verification period as confirmed through integrated biogas flow meter data/32/ and SCADA records checked during on-site visit/46/.
	Calibration and accuracy	Not applicable as no gas flow was measured for flaring
	How were the values in the monitoring report verified?	The parameter is determined through Computerized monitoring of flow meter data for the whole system including pressure and temperature of the gas. However, there has been no flaring done throughout

		the current MP as verified from the computerized data/32/ during on site audit/46/.
	If applicable, has the reported data been cross-checked with other available data?	NA
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management system was found to be reliable and appropriate.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues observed
Findings	CL02 was raised and resolved.	
Conclusion	Through on-site visit and interviews by the team and assessment of documents VVB can conclude that: • The equipment used for monitoring of parameter is calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan. • Monitoring results are consistently recorded as per approved frequency • QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, CDM VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.	

Operational status of biogas destruction devices, Status of biogas destruction device

Means of verification	The parameter is measured continuously through monitoring mass flow of biogas for parameter Vf, measured through gas flow meter placed at the entrance of cogeneration unit, as mentioned above. The operational status of gas engines was checked through electricity generation plant log/27/ and SCADA records observed during onsite audit/46/.The period of shutdowns was checked from biogas flow meter computerized data/32/ and no shutdowns were observed throughout the monitoring period.
Findings	CL02 was raised and resolved
Conclusion	The monitoring procedure for the status of the biogas destruction device mentioned in the monitoring report/11/ is consistent with the PDD/9/ and confirmed during on-site audit/46/. The monitoring procedure is correct and justified.

Volumetric fraction of greenhouse gas i in a time interval t on a dry basis, Vi, t, db, m^3 gas i/m^3 dry gas

<table>
<tr><td rowspan="4">Means of verification</td><td>Criteria/Requirements</td><td>Assessment/Observation</td></tr>
<tr><td>Measuring/Reading /Recording frequency</td><td>The parameter is monitored continuously by flow meter and reported cumulatively on weekly basis</td></tr>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes</td></tr>
<tr><td>Monitoring equipment</td><td>Parameter is monitored with gas analyzer/35/.

<table>
<tr><td>Description</td><td>Gas Analyzer</td></tr>
<tr><td>Brand</td><td>MRU</td></tr>
<tr><td>Type</td><td>Optima 7 Biogas</td></tr>
<tr><td>Serial number</td><td>323641</td></tr>
<tr><td>Measuring range</td><td>CH4: 0-100%
CO2: 0-100%
H2S: 0-2,000/5,000 ppm</td></tr>
<tr><td>Accuracy</td><td>±0.3% of reading for CH_4 and CO_2
±5ppm for H_2S</td></tr>
<tr><td>First Calibration date</td><td>17/06/2021</td></tr>
<tr><td>Last Calibration date</td><td>18/10/2022</td></tr>
<tr><td>Validity</td><td>16/06/2031</td></tr>
</table>

All the gas analyzers in use during the monitoring period were found to be in calibration. The technical specifications manual/35/ recommends an annual inspection of gas analyzer and if necessary, calibration of sensors by MRU service centre. However, in Türkiye, MRU has only one branch in Istanbul and no nationwide calibration service coverage, making official calibration impractical for the project. To address this, MRU Türkiye has provided video-based guidance for internal calibration of the gas analyzers/52/.
Along with the calibration dated 18/10/2022 from the MRU authorized service centre, the internal calibration of the gas analyzer is also practiced by PD, last internal calibration event is dated 10/06/2024 as confirmed through the internal calibration records shared by PD/53/. Thus, considering the above scenario, the gas analyzers installed in the facility are internally inspected and a reported calibration is conducted every 10 years referring to the regulations mentioned for the gas meters' calibration.
Thus, the gas analyzers installed in the facility are internally inspected and a reported calibration is conducted every 10 years referring to the regulations mentioned for the gas meters' calibration and in line with the registered monitoring plan.
Details of calibration provided in Monitoring report were found to be consistent with original calibration certificates /37/ and observations made during on-site visit/46/.</td></tr>
</table>

<table>
<tr><td></td><td>Calibration and accuracy</td><td>The details of calibration and accuracy are provided under section D.7. of this report.</td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The parameter is determined through Computerized monitoring of flow meter data for the whole system including pressure and temperature of the gas as verified from the Heat and Biogas generation records submitted by the PD/38/.

<table><tr><th>Year</th><th>Monitored Value</th></tr><tr><td>2022</td><td>58.16%</td></tr><tr><td>2023</td><td>59.35%</td></tr><tr><td>2024</td><td>59.80%</td></tr></table></td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>NA</td></tr>
<tr><td></td><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>Data management system was found to be reliable and appropriate.</td></tr>
<tr><td></td><td>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</td><td>No such issues observed</td></tr>
<tr><td>Findings</td><td colspan="2">CL02 was raised and resolved.</td></tr>
<tr><td>Conclusion</td><td colspan="2">Through on-site visit and interviews by the team and assessment of documents VVB can conclude that:

• The gas analyzers installed in the facility are internally inspected as guided by the MRU Türkiye branch, due to unavailability of MRU authorized service centres near project region.
• The equipment used for monitoring of parameter is therefore calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan.
• Monitoring results are consistently recorded as per approved frequency
• QA/QC procedures have been applied in accordance with the registered monitoring plan.
• No sampling approach has been followed for monitoring which is appropriate for the project activity.

This is in compliance with GS4GG principles and requirements/1/, CDM VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.</td></tr>
</table>

Manufacturer's flare specifications for temperature, flow rate and maintenance schedule, $SPEC_{flare}$

Means of verification	The values for the parameters reported in approved PDD/9/ are according to the Manufacturer's flare unit specifications/35/ for temperature and flow rate, and are as follows: Maximum flare flow (Nm3/h) - 550 Maximum Temperature of Combustion (ºC) – 850 Maximum flow pressure (mbar) – 120 The monitored values for current verification period as reported in the MR/11/ are as follows: Minimum and Maximum inlet flow rate (Nm3/h) – 0 Minimum and Maximum operating temperature – NA Maximum duration in days between Maintenance events - NA The flare unit was not operational throughout the current verification period as confirmed through plant operation logs during on site audit/46/ and therefore the values monitored for flare unit are deemed appropriate.
Findings	CL02 and CAR07 were raised and resolved.
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with the manufacturer's technical specifications/35/ and confirmed during onsite audit/46/. The applied values are correct and justified. Flares were not in use for the entire monitoring period.

Principle 9.4 Release of pollutants

Reduction of SO_2 and NO_x emissions due to implementation of project activity that would otherwise be emitted by thermal power plants, Air Quality, tons

Means of verification

The project emission value is calculated by multiplying the amount of electricity with emission factor for NO_x and SO_2 related to electricity generation.

The emission factor considered are mentioned below:

Gas	Value	Source
SO_2	2022- 5.81 kg/MWh 2023- 5.76 kg/MWh 2024- 5.79 kg/MWh	National Inventory of Turkey
NO_x	2022 - 1.12 kg/MWh 2023- 1.11 kg/MWh 2024- 1.12 kg/MWh	National Inventory of Turkey

The verified values of the parameter are:

Gas	Emission (Tons)	Supportive
SO2	2022 - 31.95 2023 - 103.22 2024 - 44.27 Total - 179.4	The calculated value has been checked from the ER sheet/Tab-SOx and NOx/12/.
NOx	2022- 6.17 2023- 19.94 2024- 8.55 Total- 34.6	The calculated value has been checked from the ER sheet/12/

The emission factors for years 2022 and 2023 were calculated from the electricity generation data for respective years sourced from TEIAS/26/ and an average of year 2022 and 2023 was considered for year 2024. The

	project specific electricity generation data for current monitoring period is sourced from electricity generation plant logs/27/.
Findings	No findings were raised
Conclusion	The value in the monitoring report/11/ are consistent with corresponding emission reduction calculations spreadsheet/12/. The applied values have been crosschecked through the invoices provided TEIAS data/26/ and plant electricity generation log/27/. The values are correct and justified.

SDG 8:
Personnel working in the project are employed in accordance with the legal regulations and that the social security insurance fees are paid, Quantitative employment and income generation, Number of personnel employed

Means of verification

The project has created new jobs and the verified values are:

Year	2022	2023	2024
Employment generated	23	23	23

Personnel working in the project are employed in accordance with the legal regulations and that the social security insurance fees are paid.

The values were verified from social security list of the project gathered from official governmental records, HR records and employment records/45/.

Moreover, along with employments created during current monitoring period, several training programs were also conducted to improve the quality of employment throughout the monitoring period. The details of training programs conducted are provided below:

Year	Training title	Number of trainees attended
2022	i. OHS Training ii. Fire Emergency iii. First Aid	22 14 04
2023	i. OHS Training ii. ADR General Awareness/Job Specific Training iii. Job Related Diseases iv. Environmental Training v. Energy Training	22 05 01 14 07
2024	i. OHS Training ii. Hygiene Training iii. Energy Training iv. Job Related Diseases v. Environmental Training vi. Emergency Situation Training	22 05 16 16 15 15

The training program details, and number of attendees were confirmed from the training program records for years 2022, 2023 and 2024/43/.

The monitoring of quality of employment was separately recorded in the MR under SDG 8/11/. However, both Quantity and Quality of employment generated is thoroughly assessed and reported in conjunction within this report.

	The monitored values pertaining to SDG 8 were deemed appropriate by the assessment team.
Findings	CAR 03 was raised and resolved.
Conclusion	The value for quantitative assessment of employment generated in the monitoring report/11/, SDG Impact Tool/13/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with the social security records/45/. The applied value is correct and justified.

SDG 12 and Principle 4.3.5 Hazardous and Non-Hazardous Waste

Daily stock of animals in the farm, discounting dead and discarded animals, $N_{AA,LT}$, number

Means of verification

The parameter is determined through daily counting, and the farm owners are required to share the records.
The value was found to be the following:

Name of the Farm	Animal Type	2022	2023	2024
Hatice Güler (cattle farm)	Dairy Cattle	1200	1000	1000
Şerif Demir cattle farm		2900	2500	2000
Omega Milk Agriculture cattle farm		-	2200	2190
Cactus Cattle Farm		1200	-	-
Ragyu Cattle Farm		1000	-	-
Kamil Doğan cattle farm		250	230	-
Defne Agriculture cattle farm		3500	3500	-
Migros Cattle Farm		3796	4273	3027
İzmir Province brood cattle farm	Brood Cattle	500	-	-
Çetinel Kardeşler cattle farm	Dairy Cattle	2190	2230	2440
Ercanlar poultry farm	Poultry	1,500,000	160,000	330,000
İzmir Pasteurized Egg Ind. poultry farm		99,500	105,300	94,700
Volkan Güler poultry farm		155,000	153,000	162,000
Işık Yumurta poultry farm		700,000	310,000	-

It was noted that following farms which were mentioned at the time of PDD registration are not considered under current MP:

1. Muzaffer Doydu poultry farm
2. Aziz Güner cattle farm
3. Dabase cattle farm
4. Bontoro cattle farm
5. Ataköy cattle farm

The PD has selected option 2 of the applied methodology "Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste" for the quantification of parameter N_{LT} (Annual average number of animals of type LT for the year y). For parameter $N_{AA,LT,}$ the methodology under Option 2 requires that the animal numbers reflect actual daily stocks, even if the data is collected indirectly. The daily records of the live and dead animals are maintained by the farm owners but are

	confidential in nature which might impact their business if disclosed publicly. In this case, farm owners maintain daily manual records of animal stock, which are compiled and summarized and cross verified by the Project Owner. The values reported in the monitoring report reflect these consolidated figures. The data description for parameter $N_{AA,LT}$ in the registered PDD mentions "daily stock of animals in the farm, discounting dead and discarded animals' " and specifies a "daily" monitoring frequency. Although this might imply direct daily monitoring, both the project documentation and interviews with farm owners and managers clarify that this refers to daily recordkeeping conducted at the farm level, not by the Project Developer personally. This aligns with the selected Option 2, which emphasizes traceable data collection rather than direct daily counts by the Project Developer. To further support the use of Option 2, the assessment team carried out the following audit trail: Visited active farm sites, reviewed animal stock records maintained on-site, and interviewed farm owners and managers about their record-keeping procedures. The audit trail verified that animal count data is manually recorded daily at the farm level and periodically shared with the PD through established communication methods. The PD then compiles this information to calculate annual average values used in emission estimations. As farm owners maintain daily records of animals manually, the number of days and corresponding cattle/poultry count is appropriately accounted for years 2022 and 2024 concerning the monitoring period from 22/08/2022 to 31/05/2024. However, despite the annual contractual agreement in place, the number of days for year 2022 (22/08/2022 to 31/12/2022 - 132 days) and 2024 (01/01/2024 to 31/05/2024 - 152 days) are appropriately accounted for quantifying the manure transported from these farms to the treatment plant. VVB further examined the concern related to the potential mixing of historic or partially decayed manure with the fresh manure collected during the monitoring period, the clarity and verification of manure collection start dates, and the handling of partial-year monitoring periods. VVB has checked the waste logs and cross verified the entries with the sample invoices generated for the respective dates. The theoretical maximum manure generation for the monitored farms was calculated using recognized manure production factors aligned with peer-reviewed values (https://www.mdpi.com/2311-5629/5/2/27, https://pmc.ncbi.nlm.nih.gov/articles/PMC5817801/). The calculated theoretical per day manure production is approximately 200 tons dry mass, for current MP. Considering total waste collected and used for ER quantification for current MP, average per day waste collection amounts to approximately 259 tons wet mass, which is evidently higher than theoretical value due to moisture content. Further to demonstrate no historical waste was collected on day 1, the waste collected on 22/08/2022 was confirmed through waste logs and invoices generated for the same day/44/. The waste collected on first day of MP i.e. 22/08/2022 was approximately 187 tons which is lower than the average per day waste collected i.e. 259 tons and theoretical value of per day waste generation i.e. 200 tons. The quantity of manure collected on day 1 of current MP would have recorded higher value than the average and theoretical values, provided that historical waste was also collected on the same day. Instead, the lower value on day 1 clearly demonstrates that no backlog or degraded manure was transported at the start of monitoring. This confirms that the manure being collected and transported corresponds only to current production and does not include degraded manure from previous

	periods. For each farm, the manure collection start date corresponds to the date on which daily manure removal and transportation to the project facility actually commenced. The VVB verified these dates through waste transport logs, weighbridge invoices generated for the same dates/44/, and farm operator confirmations obtained during site interviews/46/. The contract signing date is an administrative milestone and does not define the start of physical collection. Therefore, differences between contract dates and collection start dates do not affect the assessment. The transported mass is consistent only with routine, continuous, and full manure collection. Hence, the data clearly indicate that the baseline system was receiving fresh manure only, and the N_{LT} and $N_{AA,LT}$ values used in the baseline emission estimation are appropriate and accurately represent the contributing livestock population during the relevant period. VVB further confirms that emission reductions were quantified only for the periods in which manure collection was operational. Theoretical manure production for comparison purposes was adjusted on a pro-rata basis, taking into account the number of days in each partial monitoring period year (2022 and 2024), and the livestock population present during those same days. This ensures that the mass-balance comparison is made on a like-for-like basis between theoretical manure generation and transported manure quantities. Therefore, the record-keeping procedures implemented at the farm level, combined with the PD's data consolidation process and the associated documentation and verification activities, form a structured and verifiable traceability system that supports the accuracy and reliability of the reported values for parameter $N_{AA,LT}$. The values were consistently mentioned in the MR/11/ and ER sheet/12/ and were confirmed from the Invoices issued by project developer for the respective farms/39/.
Findings	CAR 02 was raised and resolved.
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with livestock records and invoices/39/. The applied value is correct and justified.

Total number of farms, N

Means of verification	The parameter is monitored annually through farm contracts and invoices/39/. The value was found to be the following: **Year** / **Number of farms** 2022 — 13 (9 cattle farm and 4 chicken farm) 2023 — 11 (7 cattle farm and 4 chicken farm) 2024 — 8 (5 cattle farm and 3 chicken farm) The values were consistently mentioned in the MR/11/ and ER sheet/12/.
Findings	CAR 02 was raised and resolved.
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with the livestock records and invoices/39/. The applied value is correct and justified.

Number of days treatment plant was operational in year y, ndy

Means of verification	The parameter is monitored annually through shutdown down records observed during on-site audit and biogas integrated data/32/ and determined to be 365 for the current MP. The values were consistently mentioned in the MR/11/ and ER sheet/12/.
Findings	No findings were raised
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with the monitoring plan in PDD/9/. The applied value is correct and justified.

Fraction of manure handled in system j in the project activity, MS%j, %

Means of verification	The parameter is monitored daily, aggregated and reported annually through records maintained for the amount of manure received by facility and determined to be 100% for the current MP as all manure collected from the participating farms is transported directly to the central manure treatment facility and discharged into the homogenization tanks upon arrival. These tanks, which serve as the primary receiving units, are directly connected to the anaerobic digesters via enclosed pipelines, ensuring a continuous feed without any intermediate storage, segregation, or pre-treatment operations at the plant site. Further, the total manure received at the facility within the current monitoring period was treated, as confirmed from the heat and biogas generation records/38/ and weighbridge records/44/. The operating procedures were cross checked during onsite audit/46/. The frequency of manure transfers from farms depends on the livestock populations at each farm. For instance, the cattle farms such as Serif Demir Cattle Farm, Defne Agriculture Cattle Farm, Migros Cattle Farm are major contributors and therefore have higher frequency of manure transport to treatment plant as confirmed from the weighbridge records/44/. While, farms Hatice Guler, Kamil Dogan Cattle Farm have lower frequency of manure transport from farms due to relatively lower number of animals/44/. VVB has undertaken a detailed assessment of the manure collection practices and the justification for applying an MS% value of 100%. The verification included a quantitative comparison between the theoretical manure generation potential (from the head and days mentioned in tab 'baseline emissions' of ER sheet), based on animal population and scientifically accepted daily manure production rates, and the actual quantity of manure recorded in the waste transport log/44/. The theoretical maximum manure generation for the monitored farms was calculated using recognized manure production factors aligned with peer-reviewed values (https://www.mdpi.com/2311-5629/5/2/27, https://pmc.ncbi.nlm.nih.gov/articles/PMC5817801/). This resulted in a total potential manure generation of approximately 280 million kg per year (on dry basis) across the relevant animal classes. Considering the theoretical annual manure generation value, the theoretical manure generation value for current MP is 129,921 tons. However, the actual manure transported as evidenced in the truck waste logs for the current MP from 22/08/2022 to 31/05/2024 is approximately 168,373 tons, which is evidently higher than theoretical production, due to substantial amount of moisture contained in the fresh manure waste. If manure were not being collected daily, moisture loss and partial decomposition would naturally reduce the collected mass. Therefore, the fact that the recorded transported quantity exceeds the theoretical maximum demonstrates that manure is being collected regularly and comprehensively. Further, per day theoretical and measured manure values were cross verified with the waste delivery invoices, and it was

	confirmed that the measured values were different for respective farms (based on number of animals) and were aligned with the theoretically estimated values. This directly supports the appropriateness of MS% = 100%, as there is no evidence of any uncollected or retained manure on the farms. Based on these observations, the VVB confirms that daily or near-daily manure collection is sufficiently demonstrated, and MS% = 100% is justified and conservative. The values were consistently mentioned in the MR/11/ and ER sheet/12/.
Findings	No findings were raised
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent the with monitoring plan in PDD/9/. The applied value is correct and justified.

Maximum methane producing potential of the volatile solid generated by animal type LT, B0,LT for Dairy Cow Manure

Means of verification	Default value of 0.24 sourced from IPCC 2019 Refinement, Chapter 10, Volume 4 Table 10.16, Eastern Europe Data /22/ has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	No findings were raised
Conclusion	The value applied was found to be consistent the with monitoring plan in PDD/9/.

Maximum methane producing potential of the volatile solid generated by animal type LT, B0,LT for Chicken Manure

Means of verification	Default value of 0.39 sourced from IPCC 2019 Refinement, Chapter 10, Volume 4 Table 10.16, Eastern Europe Data /22/ has been applied in line with the applied methodology/5/ has been used in the ER sheet/12/.
Findings	No findings were raised
Conclusion	The value applied was found to be consistent the with monitoring plan in PDD/9/.

Annual Average ambient temperature at project site, T, °Celsius

Means of verification	The parameter is monitored annually and determined through Turkish State Meteorological Service (https://www.mgm.gov.tr/veridegerlendirme/il-ve-ilceler-istatistik.aspx?m=IZMIR). The verified value for the current MP is 18^0C. The values were consistently mentioned in the MR/11/ and ER sheet/12/.
Findings	No findings were raised
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with monitoring plan in the PDD/9/. The applied value is correct and justified.

Total mass of freight transported in freight transportation activity f in monitoring period m, FRf,m, tonnes – Cattle Manure

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring/Reading /Recording frequency	The parameter is monitored continuously.
	Is measuring and reporting frequency in accordance with the	Yes

<table>
<tr><td>monitoring plan and monitoring methodology? (Yes / No)</td><td></td></tr>
<tr><td>Monitoring equipment</td><td>Parameter is monitored through the weigh scale with the technical details provided below:

<table><tr><td>Description</td><td>Weigh scale</td></tr><tr><td>Brand</td><td>Baykon</td></tr><tr><td>Type</td><td>BX23</td></tr><tr><td>Serial number</td><td>UB00817649</td></tr><tr><td>Maximum Capacity</td><td>1kg to 300000 kg</td></tr><tr><td>Accuracy Class</td><td>OIML class III</td></tr><tr><td>First Inspection Date (before used)</td><td>27/05/2022</td></tr><tr><td>Subsequent Inspection</td><td>23/02/2024</td></tr><tr><td>Inspection frequency</td><td>2 years</td></tr><tr><td>Calibration frequency</td><td>10 years</td></tr></table>
The meter in use during the monitoring period was found to be in calibration. Details of calibration provided in Monitoring report were found to be consistent with original inspection certificates /37/ and observations made during on-site visit/46/.</td></tr>
<tr><td>Calibration and accuracy</td><td>The details of calibration and accuracy are provided under section D.7. of this report.</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The parameter is determined through weighbridge records/44/.

The verified value of the parameter is:

<table><tr><th>Year</th><th>Mass of freight (tonnes)</th></tr><tr><td>2022</td><td>19,595</td></tr><tr><td>2023</td><td>74,239</td></tr><tr><td>2024</td><td>17,681</td></tr></table>
The quantity of cattle manure transported through freight transportation is calculated from the waste logs and weighbridge records/44/. The values mentioned in the MR and ER sheet are consistent and monitored in line with the monitoring plan outlined in the PDD/9/.</td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>NA</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>Data management system was found to be reliable and appropriate.</td></tr>
<tr><td>In case project participants have</td><td>No such issues.</td></tr>
</table>

	temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	
Findings	CL 02 was raised and resolved	
Conclusion	Through on-site visit and interviews by the team and assessment of documents VVB can conclude that: • The equipment used for monitoring of parameter is calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan. • Monitoring results are consistently recorded as per approved frequency • QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, CDM VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.	

Total mass of freight transported in freight transportation activity f in monitoring period m, FRf,m, tonnes – Poultry Manure

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring/Reading /Recording frequency	The parameter is monitored continuously.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	Parameter is monitored with weighbridge/35/ Description: Weigh scale Brand: Baykon Type: BX23 Serial number: UB00817649 Maximum Capacity: 1kg to 300000 kg Accuracy Class: OIML class III First Inspection Date (before use): 27/05/2022 Inspection Frequency: 2 years Calibration date: 23/02/2024 Calibration Frequency: 10 years The first inspection of weigh scale was conducted on 27/05/2022 with validity of two years, which ensured that the instrument in use is in compliance with the calibration requirements as per the

<table>
<tr><td></td><td></td><td>Turkish law 3516/28/. The subsequent inspection was conducted on 23/02/2024/37/. Therefore, scale in use during the monitoring period was found to be in calibration. Details of calibration provided in Monitoring report were found to be consistent with original calibration certificates /37/ and observations made during on-site visit/46/.</td></tr>
<tr><td></td><td>Calibration and accuracy</td><td>The details of calibration and accuracy are provided under section D.7. of this report.</td></tr>
<tr><td></td><td>How were the values in the monitoring report verified?</td><td>The parameter is determined through weighbridge records/44/.

The verified value of the parameter is:

<table><tr><th>Year</th><th>Mass of freight (tonnes)</th></tr><tr><td>2022</td><td>9,953</td></tr><tr><td>2023</td><td>26,596</td></tr><tr><td>2024</td><td>8,832</td></tr></table>
The quantity of cattle manure transported through freight transportation is calculated from the waste logs and weighbridge records/44/. The values mentioned in the MR/11/ and ER sheet/12/ are consistent and monitored in line with monitoring plan outlined in the PDD/9/.</td></tr>
<tr><td></td><td>If applicable, has the reported data been cross-checked with other available data?</td><td>NA</td></tr>
<tr><td></td><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>Data management system was found to be reliable and appropriate.</td></tr>
<tr><td></td><td>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</td><td>No such issues.</td></tr>
<tr><td>Findings</td><td colspan="2">CAR07 was raised and resolved</td></tr>
<tr><td>Conclusion</td><td colspan="2">Through on-site visit and interviews by the team and assessment of documents VVB can conclude that:

• The equipment used for monitoring of parameter is calibrated by the PP at a frequency specified in the applied monitoring methodology and registered monitoring plan.
• Monitoring results are consistently recorded as per approved frequency</td></tr>
</table>

	• QA/QC procedures have been applied in accordance with the registered monitoring plan. • No sampling approach has been followed for monitoring which is appropriate for the project activity. This is in compliance with GS4GG principles and requirements/1/, CDM VVS Version 7.0/14/ and GS Validation and Verification Standard version 2.0/51/.

Principle 9.5: Hazardous and Non-Hazardous Waste

Mass of manure (manure taken from animal farms to fed-up the anaerobic digesters) disposed outside project boundary, Qdm, kg

Means of verification	The parameter is monitored annually through weighbridge records of manure received by the facility/44/. Based on the review of records and interview of monitoring personnel, it was confirmed that the manure collected to feed anaerobic digesters was completely utilized and no quantity of manure was disposed outside project boundary/46/. Therefore, the applied value is "0" for the current monitoring period. The values were consistently mentioned in the MR/11/ and ER sheet/12/.
Findings	No finding was raised.
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent with monitoring plan in the PDD/9/. The applied value is correct and justified.

Digestate of anaerobic digestors, Organic fertilizer, ton/year

Means of verification	The parameter is calculated annually through the amount of digestate using the yearly fermented product data of digesters/44/ and determined to be following for the current MP: **Year** / **Quantity (tonnes)** 2022 / 56,588 2023 / 143,139 2024 / 39,399 The amount of fertilizer sent to farmers was quantified through the same weigh scale/35/ installed within the facility. The values were consistently mentioned in the MR/11/ and ER sheet/12/.
Findings	CAR 07 was raised and resolved.
Conclusion	The value in the monitoring report/11/ and corresponding emission reduction calculations spreadsheet/12/ are consistent and monitoring is in line with monitoring plan in the PDD/9/. The applied value is correct and justified.

Principle 9.5: Release of pollutants (Waste Oil)

Means of verification	The waste oil generated at the facility is disposed through channels governed by Ministry of Environment, Urbanization and Climate Change as confirmed from the transport receipts of the waste oil/49/.
Findings	No findings were raised.
Conclusion	The verification team confirms that the parameter is being monitored in line with the monitoring plan in PDD/9/.

D.6.3. Implementation of sampling plan

Means of	NA

verification	
Findings	NA
Conclusion	NA

D.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification

Project activity requires the use of gas and steam flowmeters/35/, methane gas analyser/35/, energy meters/35/, weigh scale/35/ to monitor ex-post parameters under the registered monitoring plan.

Meter type	Equipment serial number	Calibration date	Calibration frequency	Calibration results	Calibration entity
Electricity meter (Main Meter)	480922	14/10/2016	10	OK	TOSBI
Electricity meter (Spare Meter)	480923	14/10/2016	10	OK	TOSBI
Steam flow meter	M603B119000	08/06/2017	10	OK	Endress+Hauser
Flow meter 1 (Biogas from WWTP)	L80E2D02000	22/05/2019	10	OK	Endress+Hauser
Flow meter 2 (Biogas to gas engines)	L711FB02000	24/08/2016	10	OK	Endress+Hauser
Gas Analyzer	323641	17/06/2021 18/10/2022	10	OK	MRU
Weigh scale	UB00817649	Initial Inspection - 27/05/2022 Subsequent Inspection - 23/02/2024	10	OK	Turkish Standards Institute

For normalised gas flow meter PD has followed a practice of replacing the meter with a calibrated one before the installed equipment runs out of its calibration validity. There are four units available with PP, from which three units are mounted at metering locations and the fourth unit is maintained in stock. Thus, there is always a spare meter which is within calibration.

The meter details and calibration dates verified are shown in the table under Appendix 5 of this report. The dates were checked form the respective calibration certificates.

The calibration requirements outlined in the design certified PDD, for gas flow meters used in the project activity are in accordance with the "Turkish regulations for measurement equipment" (https://www.resmigazete.gov.tr/eskiler/2023/11/20231123.pdf). Although the manufacturers specifications suggest a calibration frequency, however the in the host country Türkiye, the regulations laid out for measurement equipment supersedes the manufacturers specifications and project developers are required to comply with the regulations as a standard practice. The details of the articles defining the calibration and inspection frequency of equipment in the Republic of Turkey has been provided under section 4.8 of this form (PD response No. 3.), which has been cross checked by VVB. Therefore, the calibration of the gas flow meters are in accordance with the Turkish regulation for measurement equipment.

The technical specifications manual for gas analyzer (MRU)/35/ recommends an annual inspection of gas analyzer and if necessary, calibration of sensors by MRU service centre. However, in Türkiye, MRU has only one branch in Istanbul and no nationwide

	calibration service coverage, making official calibration impractical for the project. To address this, MRU Türkiye has provided video-based guidance for internal calibration of the gas analyzers/52/. Thus, the gas analyzers installed in the facility are internally inspected and a reported calibration is conducted every 10 years referring to the regulations mentioned for the gas meters' calibration. No delay was observed in the calibration of Energy meters (main meter, spare meter/29/), flow meters/30/, gas analyzer/37/ or weigh scale/37/. The installation date of meters, its monitoring duration (usage) under current monitoring period, accuracy class and its validity of calibration have been illustrated under appendix 5. The information under appendix 5 of this report has been verified using the calibration certificates/29/30/37/.
Findings	CL 02 was raised and resolved
Conclusion	The meters were duly calibrated before the expiry of the calibration validity and cover the monitoring period, and all the monitoring equipment were under valid calibration and working properly.

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of Verification

The baseline emissions are calculated through following equation:

$BE_y = BE_{MSW,y} + BE_{manure,y}$

The baseline emissions under the project activity are generated through Manure management system only as there is no municipal waste treatment.

$BE_y = BE_{manure,y}$

As per the methodology $BE_{manure,y}$ is calculated via following equation:
$BE_{manure,y} = BE_{CH4,y} + BE_{N2O,y} + BE_{elec/heat,y}$

The project activity considered BE_{N2O} 0 as it same as PE_{N2O} and the approach has already been accepted at the time of validation. Thus, BE_y is:

$BE_y = BE_{CH4,y} + BE_{EC,y}$

Baseline emission from methane abatement:

$$BE_{CH4,y} = GWP_{CH4} \times D_{CH4} \times \sum_{j,LT} (MCF_j \times B_{0,LT} \times N_{LT,y} \times VS_{LT,y} \times MS\%_{Bl,j})$$

Where:

$BE_{CH4,y}$	=	Baseline emissions in year y (t CO_2)
GWP_{CH4}	=	Global Warming Potential (GWP) of CH_4 applicable to the crediting period (t CO_2e/t CH_4)
D_{CH4}	=	CH_4 density (0.00067 t/m^3 at room temperature (20 °C) and 1 atm pressure)
$N_{LT,y}$	=	Annual average number of animals of type LT for the year y (number)
$VS_{LT,y}$	=	Annual volatile solid excretions for livestock LT entering all AWMS on a dry matter weight basis (kg -dm/animal/yr)
LT	=	Index for all types of livestock
J	=	Index for animal manure management system

	MCF_j = Annual methane conversion factor (MCF) for the baseline Animal Manure Management System (AWMS) j $B_{0,LT}$ = Maximum methane producing potential of the volatile solid generated for animal type LT (m^3CH_4/kg-dm) $MS\%_{Bl,y}$ = Fraction of manure handled in system j in the baseline **Baseline emissions from energy generation:** $BE_{elec/heat,y} = BE_{EC,y} + BE_{HG,y,}$ **a. Baseline emissions from electricity generation:** $BE_{EC,y} = \sum EC_{BL,k,y} \times EF_{EF,k,y} \times (1 + TDL_{k,y})$ Where: $BE_{EC,y}$ = Baseline emissions associated with electricity generation in year *y* (t CO_2) $EC_{BL,k,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year *y* (MWh) $EF_{EF,k,y}$ = CO_2 emission factor of the grid in year *y* (t CO_2/MWh). It is calculated via "Tool to calculate the emission factor for an electricity system" v7 Scenario A Option A.1 as $EF_{grid,CM,y}$ $TDL_{k,y}$ = Average technical transmission and distribution losses for providing electricity to source k in year y Since, there were no transmission and distribution losses occur in current scenario as the generated electricity is transported to grid, therefore the baseline emissions from electricity generation were calculated excluding the parameter $TDL_{,k,y,}$ as per the equation below: $BE_{EC,y} = \sum EC_{BL,k,y} \times EF_{EF,k,y}$ **b. Baseline emissions from heat generation:** $BE_{HG,y} = \Sigma_k ((HG_{pJ,k,y} \times EF_{CO2,BL,HG,k})/\eta_{HG,BL,k})$ Where, $BE_{HG,y}$ = Baseline emissions associated with heat generation in year y (tCO2e/yr) $HG_{PJ,k,y}$ = Net quantity of heat generated with biogas by equipment type k in the project in year y $EF_{CO2,BL,HG,k}$ = CO2 emission factor of the fossil fuel type used for heat generation by equipment type k in the baseline (tCO2/TJ) $\eta_{HG,BL,k}$ = Efficiency of the heat generation equipment type k used in baseline *k* = Heat generation equipment (boiler or air heater or kiln) Equation was found to be correctly applied in the ER sheet/9/. Baseline emissions have been calculated as 2,31,373 tCO2e.

Findings	CAR 03 and CAR 06 were raised and resolved
Conclusion	a) The verification team confirms that the monitored data was available in accordance with the registered monitoring plan; b) The monthly reported data was cross-checked, as prescribed in the revised approved PDD/9/, with the relevant supportive and was found consistent; c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals have been followed; d) The assumptions, emission factors and default values that were applied in the calculations have been justified; e) The first day in which GS VERs are being claimed has been correctly specified, where applicable.

E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification

Project emission estimation has been done in accordance with the registered monitoring plan/9/, applied methodology/5/. The equation used is as follows:

$$PE_y = PE_{AD,y} + PE_{Aer,y} + PE_{Comp,y} + PE_{N2O,y} + PE_{EC/FC,y} + PE_{Tran,y} + PE_{Storage,y}$$

PE_y	=	Project emission in year y (t CO_2)
$PE_{AD,y}$	=	Project emissions associated with the anaerobic digester / co-digestion in year t (tCO_2e/yr)
$PE_{Aer,y}$	=	Project CH_4 emissions from aerobic AWMS treatment (tCO_2e/yr)
$PE_{Comp,y}$	=	Project CH_4 emissions from composting/ co-composting (tCO_2e/yr)
$PE_{N2O,y}$	=	Project N_2O emissions in year y (tCO_2/yr)
$PE_{EC/FC,y}$	=	Project emissions from electricity consumption and fossil fuel combustion (tCO_2/yr)
$PE_{Tran,y}$	=	Project emissions from manure transportation in the year y (tCO_2/yr)
$PE_{Storage,y}$	=	Project emissions from manure storage (tCO_2e/yr)

It was noted that project emissions, $PE_{Comp,y}$, $PE_{N2O,y}$, $PE_{Storage,y}$, $PE_{Aer,y}$ have been considered 0 as the project activity does not involve storage, composting/ co-composting, aerobic AWMS treatment or storage. The same was already established at the time of validation.

Therefore, the Project emissions were calculated as:

$$\boldsymbol{PE_y = PE_{AD,y} + PE_{EC,y} + PE_{Tran,y}}$$

Where,

$PE_{AD,y}$	=	Project emissions associated with the anaerobic digester / co-digestion in year t (tCO_2e/yr)
$PE_{EC,y}$	=	Project emissions from electricity consumption (tCO_2/yr)
$PE_{Tran,y}$	=	Project emissions from manure transportation in the year y (tCO_2/yr)

a. Project emissions associated with the anaerobic digester / co-digestion in year t (tCO_2e/yr)

$PE_{AD,y} = PE_{EC,y} + PE_{FC,y} + PE_{CH4,y} + PE_{flare,y}$

$PE_{AD,y}$ = Project emissions associated with the anaerobic digester in year y (tCO_2e)
$PE_{EC,y}$ = Project emissions from electricity consumption associated with the anaerobic digester in year y (tCO_2e)
$PE_{FC,y}$ = Project emissions from fossil fuel consumption associated with the anaerobic digester in year y (tCO_2e)
$PE_{CH4,y}$ = Project emissions of methane from the anaerobic digester in year y (tCO_2e)
$PE_{flare,y}$ = Project emissions from flaring of biogas in year y (tCO_2e)

PE_{EC} in this equation is considered zero as it is already accounted separately in the below section. Project emissions from fossil fuel combustion is considered 0 as there was minimaldiesel generator use/fossil fuel use on site as confirmed from the diesel generator usage records/50/ during on site audit/46/.

Moreover, the data records such as integrated biogas flowmeter data/32/, SCADA records checked during on site audit/46/ confirmed that flaring has not been done during the current monitoring period. Thus, emissions from flaring have also been considered 0. Therefore, following equation is applied for project emissions from anaerobic digestion:

$PE_{AD,y} = PE_{CH4,y}$

As per the paragraph 23 of the Tool 14/21/, $PE_{CH4,y}$ is calculates as follows:

$$\boldsymbol{PE_{CH4,y} = Q_{CH4,y} \times EF_{CH4,default} \times GWP_{CH4}}$$

Where:

$PE_{CH4,y}$ = Project emissions of methane from the anaerobic digester in year y (tCO_2e)
$Q_{CH4,y}$ = Quantity of methane produced in the anaerobic digester in year y (tCH_4) determined through Tool 08 'Tool to determine the mass flow of a greenhouse gas in a gaseous stream'/20/.
$EF_{CH4,default}$ = Default emission factor for the fraction of CH_4 produced that leaks from the anaerobic digester (fraction)
GWP_{CH4} = Global warming potential of CH_4 (28 tCO_2/tCH_4) (IPCC Fifth Assessment Report

b. Project emissions from use of electricity ($PE_{EC,y}$)

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

Where:

$PE_{EC,y}$ = Project emissions from electricity consumption by the project activity during the year y (tCO_2/yr)
$EC_{PJ,y}$ = Quantity of electricity consumed by the project electricity consumption source j in year y (MWh/yr)
$EF_{EF,j,y}$ = Emission factor for electricity generation for source j in year y (tCO_2/MWh)
$TDL_{j,y}$ = Average technical transmission and distribution losses in the grid in year *y* for the voltage level at which electricity is

	obtained from the grid at the project site j = Sources of electricity consumption in project **c. Project emissions from transportation:** $PE_{TR,m} = \sum D_{f,m} \times FR_{f,m} \times EF_{CO2,f} \times 10^{-6}$ Where: $PE_{TR,m}$ = project emissions from transportation of freight monitoring period m (tCO2) $LE_{TR,m}$ = Leakage emissions from transportation of freight monitoring period $D_{f,m}$ = Return trip distance between the origin and destination of freight transportation activity f in monitoring period m(km) $FR_{f,m}$ = Total mass of freight transportation activity f in monitoring period m(km) $EF_{CO2,f}$ = Default CO2 emission factor for freight transportation activity f in monitoring period m(km) f = Freight transportation activities conducted in the project activity during the MP Equations were found to be correctly applied in the ER sheet/12/. Project emissions were calculated as 35,858 tCO_2e as mentioned in revised MR/11/ and calculated as per the monitoring plan in approved PDD/9/.
Findings	CAR 02, CAR 06 and CAR 07 were raised and resolved
Conclusion	The verification team confirms that a) The monitored data was available in accordance with the registered monitoring plan; b) The monthly reported data was cross-checked, as prescribed in the revised approved PDD/9/, with the relevant supporting and was found consistent; c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals have been followed; d) The assumptions, emission factors and default values that were applied in the calculations have been justified; e) The first day in which GS VERs are being claimed has been correctly specified, where applicable.

E.8.3. Calculation of leakage GHG emissions

Means of verification	Leakages have been considered as 0 as some components of leakage emissions like composting, land application (of fermented product/44/) are not considered under the project activity. The emissions related to anaerobic digester, and transportation have already been considered under project emissions as they were found to be within the project boundary. It was found to be appropriate after the on-site visit conducted along with interviews of the PP and the monitoring personnel, document review and review of calculations. There are no leakages of GHG which are inline to registered monitoring plan in the PDD/9/ and applied methodology/5/. No potential new sources of leakage were identified onsite assessment.
Findings	No findings were raised
Conclusion	The verification team confirms that a) The monitored data was available in accordance with the registered monitoring plan; b) The monthly reported data was cross-checked, as prescribed in the revised approved PDD/9/, with the relevant supporting and was found consistent;

	c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals have been followed; d) The assumptions, emission factors and default values that were applied in the calculations have been justified; e) The first day in which GS VERs are being claimed has been correctly specified, where applicable.

E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification

As elaborated above, the entire emission reductions from the project activity were based on baseline and project emissions only. The calculations presented in this regard in the final monitoring report /11/ and corresponding ER calculation sheet/12/, were found appropriate and complying with the provisions prescribed in the registered monitoring plan of revised approved PDD/9/ and applied methodology/5/.

The emission reductions from the project activity were calculated as per equation 34 of the applied methodology, where the emission reductions achieved in any year are the lowest value of the following:

$$ER_{y,ex\ post} = min\ [(BE_{y,ex\ post} - PE_{y,ex\ post} - LE_{y,ex\ post}), (MD_y - PE_{y,ex\ post} - LE_{y,ex\ post})]$$

Where,

$ER_{y,ex\ post}$	=	Emission reductions achieved by the project activity based on monitored values in year y (tCO2/a)
$BE_{y,ex\ post}$	=	Baseline emissions calculated using equations provided by ACM0010 and ACM0022 with ex post monitored values in year y (tCO2/a)
$PE_{y,ex\ post}$	=	Project emissions calculated using equations provided with ex post monitored values in year y (tCO2/a)
$LE_{y,ex\ post}$	=	Leakage emissions calculated with ex post monitored values in year y (tCO2/a)
MD_y	=	Methane captured and destroyed or used gainfully by the project activity in year y (tCO2e/a)

The monitored MD_y (tCO2e/yr) values for current monitoring period from 22/08/2022 to 31/05/2024 sums to 9,78,330.8 tCO_2e, while $BE_{y,ex\ post}$ value for whole monitoring period sums to 2,31,373 tCO_2e. Since, the value of MD_y is higher than the $BE_{y,ex\ post}$, the emission reductions quantified through equation $MD_y - PE_{y,ex\ post} - LE_{y,ex\ post}$, will result in higher emission reductions for the current monitoring period.

Therefore, in line with the applied methodology, the equation applied for quantification of emission reductions is:

$$ER_{y,ex\ post} = BE_{y,ex\ post} - PE_{y,ex\ post} - LE_{y,ex\ post}$$

The total emission reductions were calculated as follows:

Monitoring Period duration	BE (tCO_2)	PE (tCO_2)	ER (tCO_2)

22/08/2022-31/12/2022	69,264	6,124	63,140
01/01/2023 – 31/12/2023	1,24,236	20,982	1,03,254
01/01/2024 - 31/05/2024	37,873	8,752	29,121
Total	2,31,373	35,858	1,95,515

As a conservative approach, the baseline emissions values are rounded down while project emission values are rounded up to nearest whole number.
The verification team confirms that an audit trail that contains the evidence and records that validated the stated figures were checked and found acceptable.

Findings	No findings were raised
Conclusion	The verification team confirms that appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project GHG emissions or actual net GHG removals and leakage GHG emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations have been justified.

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification

Actual emission reductions are lower than emission reductions for the considered monitoring period as per estimates in the approved PDD/9/ as explained below:

Monitoring Period	Estimated ERs	Achieved ERs
22/08/2022 to 31/05/2024	206,361	195,515

As the achieved ERs found to be lower than the estimated ERs thus no further justification was sought.

Findings	No findings were raised
Conclusion	The actual ERs achieved in the PA is lower than the estimated quantity of ERs in the PDD/9/.

E.8.6. Remarks on difference from estimated value in registered PDD

Means of verification	The actual emissions were found to be lower than the estimated ERs for the current monitoring period. The achieved ERs were found to be lower than the estimated ERs. The difference in emission reductions occurred because of the difference in number of days accounted for the years 2022 and 2024 during design certification and performance certification. Thus, no further verification effort was put in for identifying the reason.
Findings	No findings were raised
Conclusion	The verification team confirms the following: • All the data was available as the activity parameters were monitored in accordance with registered monitoring plan. • The appropriate method was followed to calculate emission reduction in line to revised approved PDD/9/. • The explanation for the difference in emission reduction has been given satisfactorily in section E.6 of MR/11/.

E.8.7. Comparison of monitored parameters with last monitoring period

Means of verification	This section is not applicable as this is the first monitoring period of first crediting period.
Findings	Not applicable

Conclusion	Not applicable since the project activity is under first monitoring period of first crediting period.

E.8.8. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

Means of verification	As verified and evident from the Monitoring Report/11/ and corresponding ER calculations sheet/12/, the actual emission reductionsachieved for PA under this verification in the current monitoring period were found less than the estimated quantity in the PDD/9/ for the comparable period thus no further verification effort was put in for identifying the reason.
Findings	No findings were raised.
Conclusion	The verification team confirms the following: • All the data was available as the activity parameters were monitored in accordance with registered monitoring plan. • The appropriate method was followed to calculate emission reduction in line to the PDD/9/. The explanation for the difference in emission reduction has been given satisfactorily in section E.6 of MR/11/.

SECTION F. Stakeholder inputs and legal disputes

F.1.1. Assessment of all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

Means of Verification	During the site visit, the verification team confirmed that the grievance logbook was present on site/46/ and it was confirmed that no complaints were registered for the current monitoring period. Moreover, the verification team has interviewed stakeholder about their grievance. No complaints were registered. The stakeholder interviews provided VVB with sufficient confidence that the grievances are taken into consideration and were found as duly resolved for the current monitoring period.
Findings	FAR 01 and FAR 09 were raised and resolved
Conclusion	There was no grievance received, and no negative feedback given. Hence, VVB Team has accepted the evidence verified during on site audit/46/.

F.1.2. Report on any stakeholder mitigations that were agreed to be monitored

Means of Verification	There were no stakeholder mitigations that were agreed to be monitored during the current monitoring period.
Findings	Not applicable
Conclusion	Not Applicable

F.1.3. Details of any legal contest that has arisen with the project during the monitoring period

Means of Verification	There were no legal disputes during the current monitoring period
Findings	Not applicable.
Conclusion	Not Applicable.

SECTION G. Internal quality control

The draft verification report that is prepared by the verification team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures

established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GS4GG requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team.
During the technical review process, additional findings may be identified, or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to Gold Standard. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Limited.

SECTION H. Verification opinion

Earthood Services Limited (Earthood), contracted by Enfaş Enerji Elektrik Üretim A.Ş., has performed the independent verification of the emission reductions for the GS project activity 4817 "Sütas Tire Biogas Plant" in Republic of Türkiye for the monitoring period 22/08/2022 – 31/05/2024 (including both days) as reported in the Monitoring Report v.9.0/11/. Enfaş Enerji Elektrik Üretim A.Ş. is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

Earthood commenced the verification on the basis of the baseline and monitoring methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste /5/, the monitoring plan contained in the PDD/9/ and Monitoring Report/11/.

Earthood's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

The verification team confirms that:

- The project activity was found completely implemented as per the description given in the PDD.
- The actual operation conforms to the description in the PDD.

SECTION I. Certification statement

Earthood Services Limited (Earthood), contracted by Enfaş Enerji Elektrik Üretim A.Ş., has performed the independent verification of the emission reductions for the GS 4817 "Sütas Tire Biogas Plant" in Republic of Türkiye for the current monitoring period. Enfaş Enerji Elektrik Üretim A.Ş. is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity.

Earthood commenced the verification on the basis of the baseline and monitoring methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste /5/, the monitoring plan contained in the PDD/9/ and Monitoring Report/11/ as per the methodology described under Section D of this report.

Earthood's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission

reductions are fairly stated.

In our opinion the GHG emissions reductions reported for the project activity are fairly stated in the Monitoring Report v.9.0/11/. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste /5/ and the monitoring plan contained in the PDD/9/.

Earthood Services Limited is able to certify that the emission reductions from the GS project activity 4817 "Sütas Tire Biogas Plant" in the Republic of Türkiye during the 22/08/2022 – 31/05/2024 (including both days) amount to 195,515 tCO_2.

The verified amount of emission reductions is stated below as per implemented PA and as per commitment period:

Verified and certified emission reductions as per commitment period:

Commitment period	Amount (tCO2e)
From 22/08/2022 – 31/12/2022	63,140
From 01/01/2023 – 31/12/2023	1,03,254
From 01/01/2024 – 31/05/2024	29,121
Total	**195,515**

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
GS	Gold Standard
GS4GG	Gold Standard for Global Goals
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
CER	Certified Emission Reduction(s)
CEB	Central Electricity Board
CL	Clarification Request
DG	Diesel Generator
DNA	Designated National Authority
EB	Executive Board
Earthood	Earthood Services Limited
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IR	Internal Resource
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill Gas
MR	Monitoring Report
MP	Monitoring Plan
MW	Mega Watt
PDD	Project Design Document
PP	Project Participants
PPA	Power Purchase Agreement
QA/QC	Quality Assurance / Quality Control
RMP	Revised Monitoring Plan
tCO2e	tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VCR	Verification and Certification Report
TOSBI	Tire Organize Sanayi Bölgesi | TOSBİ

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Deepika Mahala		
Country	India		
Education	M. Sc. (Environment Management), GGSIP University B.Sc. Hons. (Chemistry), Sri Venkateshwar College, DU		
Experience	8 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES (India, Bangladesh)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1, TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	08/07/2024
Approved by	Kaviraj Singh (MD)	**Date**	08/07/2024

Competence Statement			
Name	Mohd Aamir Khan		
Education	Ph. D. (Environmental Microbiology) M.Sc. (Biotechnology) B.Sc. (Life Sciences)		
Experience	5+ Years		
Field	Wastewater treatment and Waterbodies management		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Methodology Expert	NO		
Local expert	YES (INDIA)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (13.1)	Yes		
Trainee Val/Ver	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	03/01/2025
Approved by	Deepika Mahala (Technical Manager)	**Date**	03/01/2025

Competence Statement			
Name	Nida BAKIR		
Education	Master's Degree Student/Bachelor's Degree		
Experience	No Experience (2 month-long Internship experience)		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee Validator/Verifier	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	02/05/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	02/05/2024

Competence Statement			
Name	Anjali Chaudhary		
Education	Bachelor of technology in Civil Engineering		
Experience	2+ Years		
Field	Civil Engineering		
Approved Roles			
Team Leader	YES (VM only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	Yes		
TA Expert (X.X)	YES (TA 1.1, 1.2, 3.1, 13.1 & 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	11/09/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	11/09/2024

Competence Statement	
Name	Kubra Agriman
Education	BS Environmental Engineering
Experience	2 years
Field	Environmental Engineering
Approved Roles	
Team Leader	NO

Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	Yes (Turkey)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	Yes		
Reviewed by	Shifali Guleria, Quality Manager	**Date**	27/12/2022
Approved by	Deepika Mahala, Technical Manager	**Date**	27/12/2022

Appendix 3. Documents reviewed or referenced

S. No.	Author	Title	References to the document	Provider
1.	GS4GG	Gold Standard: Principles and Requirements	version 2.1	Others
2.	GS4GG	Gold Standard: GHG Emissions Reduction & Sequestration Product Requirements	version 3.1	Others
3.	GS4GG	Gold Standard: Renewable Energy Activity Requirements	version 1.4	Others
4.	UNFCCC	Standard for Sampling and surveys for CDM project Activities	version: 9.0	PD
5.	GS4GG	The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste	version 1.0	Others
6.	GS4GG	Design Change Requirements and procedures	version 2.0	Others
7.	GS4GG	GS rule update -Applicability of minimum site visit requirements	Dated 16/08/2021	Others
8.	GS4GG	Site visit and remote audit requirements and procedures	version 2.0	Other
9.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	GS Registered PDD	version 8.0 dated 18/04/2024	PD
10.	Re-Carbon	Validation Report	version 6.0	Others
11.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Monitoring report for current MP	version 9.0 dated 30/09/2025	PD
12.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	ER Sheet	Pertaining to current MP	Others
13.	ENFAŞ ENERJİ ELEKTRİK	SDG Impact Tool for current monitoring period	-	PD

	ÜRETİM A.Ş.			
14.	UNFCCC	CDM Standard: PS and VVS for PA	version 7.0	Others
15.	GS4GG	GS monitoring report template	version 1.1	Others
16.	GS4GG	GS Design certification review closure	-	Others
17.	Various	Manufacturer's Specifications and name plate photos of the equipment	-	Others
18.	UNFCCC	Tool 6: Project emissions from flaring	version 2.0.0	Others
19.	UNFCCC	Tool 5: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation	version 3.0	Others
20.	UNFCCC	Tool 08: Tool to determine the mass flow of a greenhouse gas in a gaseous stream-	version 03	Others
21.	UNFCCC	Tool 14: Project and leakage emissions from anaerobic digesters	version 03	Others
22.	IPCC	2006 Fifth Assessment report 2019 IPCC Refinement	-	Other
23.	UNFCCC	TOOL09: Determining the baseline efficiency of thermal or electric energy generation systems	Version 3.0	Others
24.	Get-Geo coordinate	Get-geo coordinate: https://www.gps coordinates.net/	-	Others
25.	EPDK	EPDK regulations: http://www.epdk.gov.tr/web/elektrik-piyasasi-dairesi/44	-	Others
26.	TEIAS	Electricity Generation records: 2022: https://webim.teias.gov.tr/file/ba3a35b0-2393-4d0a-89e2-7351f149e88d?download 2023: https://webim.teias.gov.tr/file/2e8f7a79-8861-4a1e-8e29-0319f6c0b0af?download	-	Others
27.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Electricity generation plant log	-	PD
28.	Republic of Turkey, Legislation information system	*Official Gazette Date: 24.07.1994 Official Gazette Number: 22000* https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6381&MevzuatTur=7&MevzuatTertip=5	-	Others
29.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Calibration/inspection records- electricity meter	Dated 14/10/2016	PD
30.	Endress+Hauser	Calibration records - Steam flow meter - Gas flow meter (anaerobic digester) - Gas flow meter (Cogeneration entrance)	Dated 08/06/2017 22/05/2019 24/08/2016	Others
31.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Steam generation – plant log	22/08/2022 to 31/05/2024	PD
32.	ENFAŞ ENERJİ ELEKTRİK	Integrated biogas flow meter data	22/08/2022	PD

	ÜRETİM A.Ş.		to 31/05/2024	
33.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Provisional acceptance of Gas Engines	Dated 14/10/2016	PD
34.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Generation License	Dated 01/09/2016	PD
35.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Technical specifications: (a) Operational Equipment - Gas Engines - Heat Boilers - Flare Unit - Transmitter Unit - Sensor (b) Monitoring Equipment - Steam flow meter - Gas flow meter - Gas Analyzer - Electricity Meters - Weighbridge	-	Others
36.	GE Jenbacher	Name plate LFG Engines 1. 1182798 2. 1182808 3. 1182797 4. 1182815	-	PD
37.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Calibration certificates - Gas Analyzer - Electricity meters - Weighbridge	Detailed in Appendix 5	PD
38.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Heat and Biogas generation records	2022 to 2024	PD
39.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Farm contracts: Livestock records - Invoices	-	PD
40.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Commissioning Certificates - Genset 1,2,3 & 4	Dated 14/10/2016	PD
41.	TEIAS	Electricity Invoices	August 2022 to May 2024	PD
42.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Plant Layout	-	PD
43.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Training evidence: Module, attendance sheet, photos	-	PD
44.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	-Waste Log, invoices and weighbridge records - Fermented product log	August 2022 to May 2024	PD

45.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	- HR records/ Sales and marketing records - Social security records	-	PD
46.	Earthood	Site Visit Records	22/08/2024 – 23/08/2024	Earthood
47.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Tire Feasibility Report	October 2016	PD
48.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Heat Sales Agreement	-	PD
49.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Waste Oil Records	August 2022 to May 2024	PD
50.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Diesel Generator Usage Records	-	-
51.	GS4GG	Validation and Verification Standard	Version 2.0	Others
52.	MRU	Video guidance for inspection and calibration of gas analyzers (https://www.youtube.com/watch?v=Z7sCnAPxWuw)	-	Others
53.	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.	Gas analyzer internal calibration record	-	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. Remaining FAR from validation and GS Design Review

FAR ID	01	**Section no.**	E.2	**Date :** 23/08/2024
Description of FAR				
FAR from Validation report: The VVB can confirm that the SFR was conducted but the evidence is not robust enough to verify all the required details, a FAR is thus raised. The developer should re-conduct the SFR before the 1st issuance.				
Project participant response				**Date :** 06/12/2024
SFR processes have been conducted between 21/05/2024 and 21/06/2024. Evidence of related e-mail is submitted. No comments were sent in the SFR period.				
Documentation provided by project participant				
Screenshots of related e-mail is submitted.				
VVB assessment				**Date:** 18/12/2024
PP has conducted SFR between May-June to seek comments from the stakeholders and has provided email- screenshots to confirm the mode of communication and no negative feedback has been received. FAR#01 is Closed				

FAR ID	02	**Section no.**	E.2	**Date :** 23/08/2024
Description of FAR				
FAR from Validation report:				

As per the 'Design Change Requirements v1.1', noting that the project crediting start date has been changed, with reference to clause 3.3.1, Prior to or at the time of first verification, the project shall:

i. Demonstrate that no changes have occurred to the project activity that would result in a less conservative baseline or update the baseline using conservative data; ii. Demonstrate that substantive progress has been made by the project developer to start the project activity.

Noting that the project is already operational and the crediting period start date is retroactive, the current guidance whether such change is allowed is unclear.

Project participant response	**Date :** 06/12/2024
As seen in the physical site visit made during the verification process, it can be observed that there is no change in the facility, project activity or design, despite the time elapsed since the start of the project activity.	
Documentation provided by project participant	

VVB assessment	**Date:** 18/12/2024

The start date mentioned in the registered PDD was 01/06/2022. However, the first site visit was conducted on 21/08/2024 and to comply with Site Visit requirements , the date has been delayed to 22/08/2022 and PP is not claiming for 01/06/2022-22/08/2022.

Although it has been confirmed that there is no change in the facility. However, PP shall provide clear justification

The PD shall provide justification and demonstrate that that substantive
progress has been made by the project and no changes have occurred to the project activity that would
result in a less conservative baseline or update the baseline using conservative data. For instance:
a) Is the statement on GWP still appropriate for the project 'The GWP of methane is taken as 25 till
31/12/2020 and 28 thereafter as per following the GS rule updates?
b) The parameters of MCFj, B0,LT for Dairy Cow Manure, B0,LT for Poultry manure are data sourced from 2019 IPCC refinement, However the parameters of Wdefault, VSLT are data sourced from IPCC
2006. Why inconsistent data vintage from IPCC?
c) The grid emission factor is sourced from the publish by the Ministry of Energy and Natural Resources which released in 03/09/2020. Any update or more conservative emission factor for CP starting on 01/06/2022?

The finding is open.

Project participant response	**Date :** 13/03/2025
MP start date can be taken as 22/08/2022, as per Design Change Requirements par. 3.3.1.b "In case the revised start date of the crediting period is after the date of Project Design Certification, a certified project activity is not required to request approval for the changes summarised in the Table 1 below, but shall notify VVB at the time next certification event, as applicable	

Table 1 – Requirements for change from design certified crediting period start date

CHANGES IN CREDITING PERIOD START DATE	PROJECT LOCATION	REQUIREMENTS
Up to one year	All locations	No Justification and/or approval is required
Between 1-2 year	All locations	Prior to or at the time of first verification, the project shall:

a) GWP is taken as 28 already. Therefore any justification is not required.
b) The parameters are defined during the design review period and therefore they're used in verification period now.
c) The parameters are defined during the design review period and therefore they're used in verification period now.

Documentation provided by project participant

VVB assessment	**Date:** 26/03/2025

As per para 3.3.1(c) and Table 1 of GS Design Change Requirements, there is no justification, or approval is required for changes in CP start date up to one year for the projects with CP start date before design certification date. Since design certification for the current project was approved on 18/06/2024 and crediting period start date is revised from 01/06/2022 to 22/08/2022, no justification or approval is required for changes over CP start date. Closed.

a) The assessment team confirms that GWP value considered in ER quantification is 28. Closed.
b) The assessment team confirms that values of parameters in the MR are in line with the design certified PDD approved on 18/06/2024. Closed.
c) The assessment team confirms that parameter EF_{grid} in the MR is in line with the design certified PDD approved on 18/06/2024. Closed.

FAR #02 is now closed.

FAR ID	03	**Section No.**	NA	**Date :** 23/08/2024

Description of FAR

FARs from GS Design Review feedback form:

Remote audit shall be resumed by VVB when Covid-19 situation eases as per Interim Measures para 4.2.1.

Project participant response	**Date :** 06/12/2024

Due to Covid-19 measures, the field visit for validation was carried out remotely in 2020. Validation was approved by Gold Standard in this way. If a physical field visit was requested when Covid-19 measures were lifted, it would have been possible.

Documentation provided by project participant

VVB assessment	**Date:** 18/12/2024

Validation was conducted remotely and submission was done in 21/06/2022. For first verification, the verification has conducted a physical site visit to confirm the implementation of project activity in line with the registered PDD.

Thus, the FAR 03 is closed.

FAR ID	04	Section No.	NA	Date : 23/08/2024
Description of FAR				
FARs from GS Design Review feedback form: *In-line with PR 5.1.39, annual reporting shall be provided to GS where verification did not take place in a calendar year.*				
Project participant response				**Date :** 06/12/2024
The annual reports have been submitted to GS for the monitoring period from 01/01/2022 to 31/12/2022 and 01/01/2023 to 31/12/2023.				
Documentation provided by project participant				
VVB assessment				**Date:** 24/12/2024
The assessment team has verified the submission of annual reports to GS for the monitoring periods mentioned above. Closed. https://registry.goldstandard.org/projects/details/851 Thus, FAR 04 is closed.				

FAR ID	05	Section No.	NA	Date : 23/08/2024
Description of FAR				
FARs from GS Design Review feedback form: *In-line With PR 5.1.29, 1st Verification shall be completed within 2 years after design certification.*				
Project participant response				**Date :** 06/12/2024
The verification process has been delayed due to the fact that the Design Review process was completed 3 years after it was uploaded to Sustain-Cert01. Some processes such as the consultation with the Technical Advisory Committee during the design review process contributed to this delay.				
Documentation provided by project participant				
VVB assessment				**Date:** 24/12/2024
The site visit for first verification was conducted on 21/08/2024 and were dependent on design review closure and preparation of MR and audit logistics by the PP. However, PP has claimed only since 2 years from the date of physical site visit and left an unclaimed period of 01/06/2022-22/08/2022 in the current monitoring period. Thus, the FAR 05 is closed.				

FAR ID	06	Section No.	A.1	Date : 23/08/2024
Description of FAR				
FARs from GS Design Review feedback form: *Free fertilizer distribution to local farmers shall be validated by VVB when resuming site visit via Interviews.*				
Project participant response				**Date :** 06/12/2024

Interviews with field workers and those who received the fertilizer support this statement.
Documentation provided by project participant
VVB assessment **Date:** 18/12/2024
The assessment team interviewed the farm owners and designated personnel, who are responsible for the fertilizer distribution and with respect to interviews the assessment team, verifying fertilizer to the local farm owners is a continuing activity. The list of farmers interviewed are included in the verification report. Thus, the FAR 06 is closed.

FAR ID	07	**Section No.**	NA	**Date :** 23/08/2024
Description of FAR				
FARs from GS Design Review feedback form: *Representative group of manure producers shall be Interviewed by VVB regarding SDG 12 and transportation when resuming site visit.*				
Project participant response				**Date :** 06/12/2024
Related interviews have been conducted during the physical site visit held for verification process.				
Documentation provided by project participant				
VVB assessment				**Date:** 18/12/2024
The farm owners/manure producers were interviewed regarding the management of the waste before the agreement and they confirm that manure were kept in anaerobic lagoons and additionally confirmed that the farmers that in the project scenario, the manure is transported in PP's truck to the facility for Biogas Generation. This technology digests the manure but also capture and utilize greenhouse gases (GHGs) emitted during the process. The key benefit of this approach is the reduction in methane emissions from uncovered anaerobic manure management systems, which are a common issue in livestock farms. By reducing these emissions, the project will contribute to mitigating the adverse impacts of cattle manure on both human health and the environment. Thus, the project aligns with Indicator 12.4.1, which emphasizes the need for improved waste management practices in line with international multilateral environmental agreements. Turkey, as a party to these international conventions, is already committed to enhancing its environmental policies(http://www.vivis.de/phocadownload/Download/2015_wm/2015_WM_79-84_Oeztuerk.pdf & https://www.sayistay.gov.tr/En/Upload/files/4-TCA_Waste_Management_Report.pdf). The project, therefore, supports the international obligations by improving waste management and reducing environmental hazards associated with livestock farming. The list of farmers interviewed are included in the verification report. The FAR07 is closed.				

FAR ID	08	**Section No.**	D.2	**Date :** 23/08/2024
Description of FAR				
FARs from GS Design Review feedback form: As per Tool 27 para 28, The verifying VVB should review in detail if realized energy generation of the project activity for calendar years since operation start date may increase 5% more than estimated in PDD. According to sensitivity analysis with such increase, IRR exceeds benchmark and additionality discussions shall be revisited. This FAR shall be considered in each verification.				
Project participant response				**Date :** 06/12/2024

Produced electricity is less than the estimated. It can be seen from the EPIAS data.
Documentation provided by project participant
VVB assessment **Date:** 18/12/2024
The verification team reviewed Ex-ante ER sheet, Tab 'Baseline emission', cell D25 which considered 29,876 MWh/year for the estimation of emission reductions. For the current monitoring period, the Net annual energy generation for year 2022 is 9654.22MWh/yr, year 2023 is 20288.90MWh/yr and for 2024 is 8653.41 MWh/yr as presented in tab 'EPIAS Records' of ER sheet for current MP. Thus, the ERs are lower than the estimated in PDD. Thus, FAR08 is closed.

FAR ID	09	**Section No.**	NA	**Date :** 23/08/2024
Description of FAR				
<u>FARs from GS Design Review feedback form:</u> *The validation VVB has raised forward action request about re conducting stakeholder feedback round before the 1st issuance. Therefore, the verification VVB shall verify should validate how the requirements following the stakeholder feedback round are met.* • *The project developer shall provide feedback to the stakeholders on how comments received in the physical meeting(s) have been considered and seek further comments from stakeholders.* • *All stakeholders invited to participate in the physical meeting(s) shall be invited to provide feedback during the stakeholder feedback round.* • *The project developer shall share the updated project documentation with stakeholders for thirty days via publicly accessible means. PD shall specify the means, start and end date of the required thirty days.*				
Project participant response				**Date :** 13/03/2025
LSC of this project has been realized in 2016 physically as approved by Sustain-Cert/Gold Standard. SFR of this project has been conducted between 20/05/2024-21/06/2024 as indicated in provided screenshots of the sent SFR period starting e-mail.				
Documentation provided by project participant				
Screenshots of the e-mail.				
VVB assessment				**Date:** 26/03/2025
The assessment team has reviewed the supportive provided, which is the GTE webpage for Stakeholder Feedback Round Process and following inconsistencies have been observed: 1. The PD has invited stakeholders to SFR via email and has made project documents publicly accessible through GTE webpage (https://gte.com.tr/en/stakeholder-feedback-round-process/) and provided both email and postal address to submit any feedback comment. However, the email screenshots provided to VVB show only three recipients from Gold Standard and Sustain-Cert, and no other stakeholder identified/invited during design certification. As per para 3.6.10 of Stakeholder consultation and engagement requirements v.2.1, "All stakeholders invited to participate in the physical meeting(s) shall be invited to provide feedback during the stakeholder feedback round". Therefore, it is unclear from the email screenshots that apart from Gold Standard and Sustain-Cert, other stakeholders were invited for the SFR. PD shall provide additional supportive evidence to substantiate the requirement stated under para 3.6.10 of Stakeholder consultation and engagement requirements v.2.1. Finding remains open. 2. The commenting period for SFR mentioned in the email screenshots is 21/05/2024 to 21/06/2024, while the SFR commenting period mentioned in the GTE webpage screenshot is 15/05/2024 to 15/06/2024. PD shall clarify the inconsistency observed. Finding remains open.				

FAR08 remains open.

Project participant response	**Date :** 14/04/2025

1. SFR has been initiated as indicated in the screenshot of the presented email.
2. Since the SFR documents are still open in the given web page, it can be stated that the commenting period was open until 21/06/2024, even it is written as 15/06/2024. Therefore 30 days period was valid for the SFR.

Documentation provided by project participant

VVB assessment	**Date:** 21/04/2025

1. Sufficient evidence has been provided by the PD and deemed appropriate by the assessment team. Closed.

2. PP has clarified that despite being inconsistency observed over dates of SFR, a period of 30 days was covered as the SFR link on the GTE webpage is still open. The clarification provided by PD is deemed appropriate by the assessment team. Closed.

FAR09 is now closed.

Table 2. CL from this verification

CL ID	01	**Section no.**	B.1	**Date :** 23/08/2024

Description of CL

Project proponent has not provided details of all equipment installed as a part of technology implementation including specifications of:

1. Mixer tanks
2. Anaerobic digesters(6units – 5 digesters ad 1 post digester)
3. Co-generation units: Electricity Gen Set(4) and boilers(4)
4. Digestate units(Separators)
5. Flare unit
6. Diesel Generator

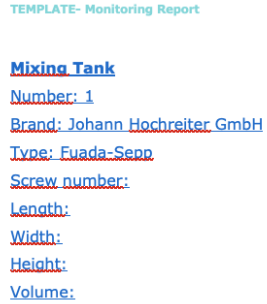
Project participant response	**Date :** 04/11/2024

Flare unit, cogeneration units specifications are already mentioned in the report. The other ones are added.

Documentation provided by project participant

VVB assessment	**Date:** 28/11/2024

1. PP is requested to complete the details of mixer tanks:


TEMPLATE- Monitoring Report

Mixing Tank
Number: 1
Brand: Johann Hochreiter GmbH
Type: Fuada-Sepp
Screw number:
Length:
Width:
Height:
Volume:

2. Details of diesel generators not added.

3. Also, the numbers units for flaring, sensors, transmitter, biogas metes and electricity meters are not specified under section B.1. of the MR.

The finding is open

Project participant response	**Date :** 06/12/2024
1. Mixing tank information is revised. 2. Added. 3. Added.	
Documentation provided by project participant	
VVB assessment	**Date:** 11/12/2024
Although the requested alterations are performed in the report, document regarding the mixing tank is not a document shared in folder 17 on 14/11/2024. In addition, technical specifications regarding shared, had been issued for the Karacabey for following: Mixing Tank Heat Boilers Digesters Cogen information Following documents are required: Main Equipment: 1. Mixer Tanks - Document of technical specifications is not traceable. 2. Digesters (Anaerobic)- Document of technical specifications is not traceable 3. Gas Engines - Two discrepancies were observed: a) Production year cannot be confirmed b) Thermal and Total efficiencies are inconsistent (Thermal is 25.3% and Total is 65.5%, as per the provided doc. 4. Heat Boilers - Document of technical specifications is not traceable 5. Digestate units (Separators) - Document of technical specifications is not traceable and details are not provided in the MR 6. Flare unit - All the details are consistent with the name plate 7. Diesel generators - Document of technical specifications is not traceable. Although, through online research, these technical details can be confirmed. However, PD has to provide the supportive for production and installation year of this equipment. Please provide documents with the above serial numbers and English name of titles. CL#01 is OPEN	
Project participant response	**Date :** 13/03/2025
1. One of 6 digesters is used as mixing tank. 2. Digester are constructed, therefore they don't have technical specifications. The details mentioned in the MR can be checked from feasibility report pf the project. 3. Production year of gas engines can be confirmed from provisional acceptance document in page 7 and 8. Thermal efficiency and total efficiency values are taken from "full load" column. 4. Details of heat boilers can be checked from provisional acceptance document in page 11 and 12. Also, nametag of the boilers are provided. 5. Separator information is provided in the MR, also document is provided. 6. Supportive for DG is provided.	
Documentation provided by project participant	
VVB assessment	**Date:** 26/03/2025
1. & 2. Project feasibility report is not provided to validate the technical/construction details of the mixing tank and biodigesters. PD shall provide the project feasibility report. Open. 3. Production year is confirmed through the provisional acceptance document of gas engines. However, as per technical specification sheet, the thermal efficiency and total efficiency at full load capacity are 25.3% and 65.5% respectively. PD shall check and revise the MR with correct values. Open.	

0.01 Technical Data (at module)

Data at:				Full load	Part Load	
Spec. fuel consumption of engine		kWh/kWh	[2]	2,43	2,49	2,62
Lube oil consumption	ca.	kg/h	[3]	0,33	~	~
Electrical efficiency		%		40,2%	39,0%	36,8%
Thermal efficiency		%		25,3%	26,1%	28,0%
Total efficiency		%	[6]	65,5%	65,1%	64,8%

4. technical specification sheet and nameplate of heat boiler are provided and deemed appropriate by the VVB. Closed.

5. The technical catalogue of separators is provided to VVB, and relevant information has now been included in the MR. Closed.

6. The production year of the Diesel Generator has been provided by the PD. The provisional acceptance document mentions STAMFORD diesel generator, while in the MR, the diesel generator of Teksan Brand is mentioned. Therefore, the installation year of Teksan diesel generator is still not evident from the supportive document provided by the PD. PD shall provide the supportive evidence to substantiate the installation details of diesel generator. Open.

CL01 remains open.

Project participant response	**Date :** 14/04/2025

1-2. Feasibility report is provided.
3.Revised
6.The generators in the provisional acceptance document are not a backup diesel generator, the facility has just one backup diesel generator and its brand is TEKSAN as you can see in the diesel generator usage records provided after second round.

Documentation provided by project participant

VVB assessment	**Date:** 21/04/2025

1. & 2. The details pertaining to anaerobic digesters are correctly mentioned in the MR, as confirmed from the project feasibility report. Closed.

3. The thermal efficiency and total efficiency of gas engines at full load capacity are now correctly presented in the MR as per the technical specification sheet. Closed.

6. PD has now clarified that the installed diesel generator is of Teksan brand and the same has been confirmed during on-site audit by the VVB. Closed.

CL01 is now closed.

CL ID	02	**Section no.**	D.2	**Date :** 23/08/2024

Description of CL

Project proponent has not provided details of all measuring equipment and its calibration dates(demonstrating the required calibration frequency):

1. Weighbridge records(Truck weight)
2. Flow meters at input of 4 gen set
3. Steam Flow meters at exit of boilers(1 at biogas facility(supplier end) and 1 at sutas factory(receiving end).
4. Electricity meters(consumption and sold(main and spare)

5. Gas Analyser at input of gensets
6. Flare meter
7. Flow meter at exit of digestate.

PP shall provide plant layout with equipment location and serial numbers and additionally mention calibration details of all the measuring equipment.

Project participant response	**Date :** 04/11/2024

Provided except flare meter. Since there are surplus gas engines in the facility, flare is not used at all. A manual logbook is kept to indicate that it is not used.

Documentation provided by project participant

VVB assessment	**Date:** 27/11/2024

1. Section D.2. of MR mentions only electricity meters details and its calibration. However, it does not mention all the measuring equipment (make and model) and dates of calibration like Flow meters, weighing scales. Open.
2. For flaring, although there flaring done for the current monitoring period. Nevertheless, the methodology and Tool 6 requires measuring equipment like flow meter for measuring gas sent to the flare unit to be measured and there no provision at the facility. Thus, a FAR being raised

Project participant response	**Date :** 06/12/2024

1. Mentioned.

Documentation provided by project participant

VVB assessment	**Date:** 17/12/2024

A. For Electricity:

Turkish Legislation requires the calibration shall be conducted every 10 years.

PP has submitted main meter(**480922**) and spare electricity meter(**480923**) with calibration date 10/04/2013. The validity of the calibration is till 09/04/2023. PP shall either provide supportive to confirm that a calibrated meter has been used since the expiry of validity of the meter (09/04/2023) till the end date of the current MP (31/05/2023) or apply suitable error factor for the delay in calibration.

B. Additionally please address following concerns:

1. Main electricity meter (480922)

– No calibration date on certificate.
Print date on document – 30/04/2013. Calibration date as per MR – 14/10/2016
Cannot be verified.

2. Spare Electricity Meter (480923)

Same finding as above.

3. Anaerobic digester flowmeter (L80E2D02000) **calibration document not available -**

4. Steam meter (M603B119000) **not consistent with any calibration document. (monitored parameter -** HGpj,k,y

5. Weighbridge – Inspection report available

Date of inspection as per report – 22/07/2024
Date of calibration as per MR – 23/02/2024

Revisions to be made –

1. Clearly document the number of metering equipment installed in the project boundary with their locations in the system and serial number in a diagrammatic form. **(Section B.1 "Description of implemented project" of MR)**

2. Add a table of calibration details including all metering equipment, serial number, calibration date, calibration validity, accuracy class for **(Appendix of MR including analyzers, DG equipment, biogas flow meter etc).**

CL#02 is OPEN

Project participant response	**Date:** 13/03/2025

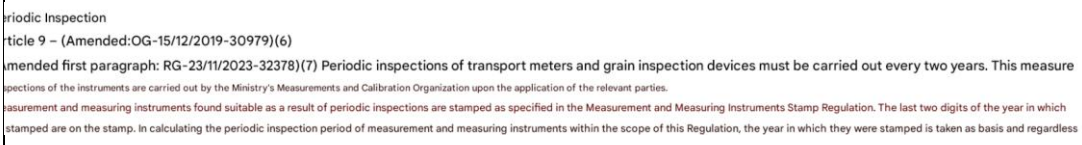
1. Main and spare electricity meter calibration dates identified as 14/10/2016 are taken from provisional acceptance document as stated in the MR data and parameters section. The statement regarding controlling is done by TOSBİ can be checked from page 32 in provisional acceptance document.
2. Anaerobic digester flowmeter information has been provided, and the calibration file has been provided as image in the "Calibration Records".
3. It is consistent with "Sütaş hot water flowmeter calibration 2017". The document has been provided in v3 files.
4. The weighbridge was also inspected on 23/02/2024, the document name submitted in the previous round of the inspection starts with 23.02.2024.
5. Diagram is revised.
6. The mentioned details are given in the data and parameters section.

Documentation provided by project participant

DOE assessment	**Date:** 26/03/2025

1. The electricity meters are maintained by TOSBI. The last calibration of electricity meters is documented in the provisional acceptance of gas engines dated 14/10/2016, where the electricity meters were inspected and sealed by the TOSBI. Closed.

2. The anaerobic biodigester flow meter verification certificate dated 22/05/2019 has been provided by the PD. Also, PD has defined the calibration frequency of flow meters as 10 years by referring Article 9 of Measurement and Measuring Instruments Inspection Regulation (ÖLÇÜ VE ÖLÇÜ ALETLERİ MUAYENE YÖNETMELİĞİ). However, Article 9 mandates the periodic inspection every 2 years and does not discuss about 10-year period as calibration frequency. PD shall provide the valid calibration certificates of the flow meter covering whole monitoring period under verification and clearly state the accurate calibration requirements. Open.


riodic Inspection
rticle 9 – (Amended:OG-15/12/2019-30979)(6)
mended first paragraph: RG-23/11/2023-32378)(7) Periodic inspections of transport meters and grain inspection devices must be carried out every two years. This measure
pections of the instruments are carried out by the Ministry's Measurements and Calibration Organization upon the application of the relevant parties.
asurement and measuring instruments found suitable as a result of periodic inspections are stamped as specified in the Measurement and Measuring Instruments Stamp Regulation. The last two digits of the year in which
stamped are on the stamp. In calculating the periodic inspection period of measurement and measuring instruments within the scope of this Regulation, the year in which they were stamped is taken as basis and regardless

3. The steam meter calibration certificate is in line with the model number mentioned in the MR. The calibration date is 08/06/2017 as evident from the calibration certificate. However, calibration frequency is not correctly defined in the MR. The detailed observation is same as response no. 3, where calibration frequency mandated by Article 9 is biennial, not 10 years. PD shall provide the valid calibration certificates of the flow meter covering whole monitoring period under verification and clearly state the accurate calibration requirements in the MR. Open.

4. The weighbridge calibration certificate provided by PD is dated 23/02/2024, which does not cover monitoring period before 23/02/2024. Also, the calibration frequency is incorrectly mentioned in the MR referring to Article 9, as explained in previous responses. PD shall provide the valid calibration certificates of the weighbridge covering whole monitoring period under verification and clearly state the accurate calibration requirements in the MR. Open.

5. The metering points for the equipment installed in the facility are not marked in figure 2 or figure 3 under section B.1 of MR. PD shall revise the figures and mark locations with the respective metering points. Open.

6. Calibration details are provided within the data and parameters section. Closed.

CL02 remains open.

Project participant response	**Date :** 14/04/2025
1-2-3. Please check article 9 paragraph b not a. Part a includes "Periodic inspections of precision mass measures, mass measures over 5 kg, grain inspection instruments, railway freight and tank wagons, transport meters, fuel scales and meters and liquid petroleum gas (LPG) meters shall be carried out every two years." Part b includes "It is mandatory to have periodic inspections of electricity, water and gas meters done once every ten years." 4.Dated 27/05/2022 calibration document has been provided after 1st round, and it is provided for this round too on your request. 5.Figure 2 is revised.	
Documentation provided by project participant	

VVB assessment	**Date:** 21/04/2024
1-2-3. The assessment team has finely assessed the document shared by the PD against calibration requirements and confirms that the calibration requirements outlined in the PDD are inline with the Turkish regulations for measurement equipment (https://www.resmigazete.gov.tr/eskiler/2023/11/20231123.pdf). Although the manufacturers specifications suggest a calibration frequency, however the in the host country Türkiye, the regulations laid out for measurement equipment supersedes the manufacturers specifications and project developers are required to comply with the regulations as a standard practice. The details of the articles defining the calibration and inspection frequency of equipment in the Republic of Turkey has been provided under section 4.8 of this form (PD response No. 3.), which has been cross checked by VVB. Therefore, the calibration of the gas flow meter and gas analyzer are in accordance with the Turkish regulation for measurement equipment. Closed. 4. The calibration certificate dated 27/05/2022 has been provided as supportive for weighbridge calibration details. This is deemed appropriate by the assessment team. Closed. 5. Figure in the MR has now been revised with the metering points clearly marked within the process flow diagram. Closed. CL02 is now closed.	

Table 3. CAR from this verification

CAR ID	01	**Section no.**	A.4	**Date :** 23/08/2024
Description of CAR				
In the context of verification, the GS4GG site visit and remote audit requirements and procedures version 2.0 /73/, para 3.1, "At the minimum, the VVB shall conduct physical site visit within two years of the project and once every three years after the first physical site visit". The validation of the project has been completed through remote audit conducted on 04/10/2021 by Re-Carbon. The crediting period start date is 01/06/2022 and the first site visit was conducted on 22/08/2024-23/08/2024. Thus, the project activity is not eligible to claim for emission reductions 2 years prior to the date of physical audit.				
Project participant response				**Date :** 04/11/2024
The crediting period start date is delayed to that date because of a Force Majeure as you can see in the Design Review Final Review, so according to the GS Rule Update "APPLICABILITY OF MINIMUM SITE VISIT REQUIREMENTS BY VVB", par. 2.2.2, this statement should not be applicable for this project.				

Documentation provided by project participant	
VVB assessment	**Date:** 27/11/2024
Design Review form does not have anything that explains/Justifies the delayed site visit scheduling for the first verification. PP is requested to explain how retroactive credit claiming condition related to the condition for first site visit. Thus, the finding is open.	
Project participant response	**Date :** 06/12/2024
The crediting period start date is postponed to 22/08/2022, and MP start date is changed to 22/08/2022.	
Documentation provided by project participant	
VVB assessment	**Date:** 17/12/2024
The site visit for first verification was conducted on 21/08/2024 and were dependent on design review closure and preparation of MR and audit logistics by the PP. However, PP has claimed only since 2 years from the date of physical site visit and left an unclaimed period of 01/06/2022-22/08/2022 in the current monitoring period. Thus, the CAR01 is closed.	

CAR ID	02	**Section no.**	A.2	**Date :** 23/08/2024

Description of CAR

The farms mentioned in PDD(section A.1.) were compared with the farms mentioned in the MR as listed below and only three farms were found to be same(**Hatice Güler Cattle Farm , Volkan Güler Egg Farm and Ercanlar Egg Farm**):

Name of the farms mentioned in the PDD section	**Name of the Farm in the MR section A.2.**
Hatice Güler Cattle Farm	Kamil Doğan
Şerif Demir Cattle Farm	Omega Milk Agriculture Farm
Ataköy Cattle Farm	Defne Agriculture and Animal Husbandry
Bontoro Cattle Farm	Işık Egg Farm
Dabesaa Cattle Farm	Çetinel Kardeşler
Ragyu Cattle Farm	Volkan Güler Egg Farm
Cactus Cattle Farm	Hatice Güler (Supplier)
Aziz Güner Cattle Farm	Ercanlar Egg Farm
Ercanlar Poultry Farm	Şerif Demir (Supplier)
Volkan Güner Poultry Farm	İzmir Pasteurized EggInd.
Muzaffer Doydu Hayvancılık	

a. PP shall explain why the farms have changed.
b. PP shall explain how the baseline scenario has been established for the newly included farms?

c. PP shall explain why design change has not been sought and how the change impacts additionality, scale and applicability condition of methodologies(AMS-III.D. and AMS-I.C.).

d. Also, PP shall explain how the ex-ante parameters like distance from farm/residual waste, amount of freight remains same, while farms and number of animals at farms have changed.
e. Also, the geo coordinates mentioned for Ercanlar Egg Farm are not same as the PDD. Please confirm if it is the same.

Project participant response	**Date :** 04/11/2024

a. Farms' agreements with Sütaş are signed for a limited period of time, they can be extended if they wish, or the agreement can be terminated by the choice of either party. Since the changed farms preferred to use their waste for commercial purposes or did not want to renew their agreements for other reasons, agreements with new farms are signed.
b. The farms have lagoons and conveyor belts (poultry farms) as saw in the site visit.
c. This issue is not subject to design change. The new farms with which the agreement has been signed have no effect on the above-mentioned scope, methodology etc. other than those previously described. Therefore, the change does not have impact on those issues.
d. Residual waste is also 0 for new farms and the other parameters are changed based on distances and number of animals in the farms and showed in the data and parameters.
e. Revised.

Documentation provided by project participant

VVB assessment	**Date:** 27/11/2024

a. Justification was found suitable to change the source of the manure. Closed.
b. PP shall explain how the justification is related to part ii (page 4) of the applied methodology. Open
c. The justification was found acceptable. Closed.
d. Changes are reflected in the revised MR. Closed.
e. Revision is consistent with the PDD. Closed.

Project participant response	**Date :** 06/12/2024

b. Regarding step a)"The common practice for the livestock farm owners is to have uncovered anaerobic lagoons/ponds at their farms in Turkey. In terms of the residence time of the manure at the lagoons, it is possible to say that since the uncovered lagoons are also fed by rain waters, the lagoons are reaching their full capacities faster than usual in rainy seasons. Nevertheless, the minimum retention time of manure waste in the uncovered anaerobic lagoons is greater than one and half and/or two months through the implementation of the proposed project activity, the manure collected at these lagoons/ponds will be collected daily via special manure trucks and fed into the digesters at the biogas plants.
For step a, proposed project activity meets relevant regulations and take into consideration local conditions since it already has gathered EIA approval/permissions. Moreover pre-project situation is defined above which has negative impact on human health and environment. " (Türkiye'de Biyogaz Yatırımları için Gerekli Koşulların ve Potansiyelin Değerlendirilmesi. Yazar: DBFZ - Deutsches Biomasse Forschungs Zentrum gemeinnützige GmbH, Torgauer StraBe 116, 04347 Leipzig. Çeviri: Funda Cansu Ertem. Aralık, 2011) (https://www.yatirimadestek.gov.tr/pdf/assets/upload/fizibiliteler/elazig-ili-biyogaz-tesisi-on-fizibilite-raporu2020.pdf)
Regarding Step b) The newly included farms doesn't change conducted investment analysis of the project. Simply, the contracts with some farms with which contracts were made in the past were terminated and contracts were made with other farms instead. Farm contracts do not cause any changes in the project's operation, capacity etc.

Documentation provided by project participant

VVB assessment	**Date:** 18/12/2024

The justification against inclusion of new farms to the current project activity provided by PD deemed appropriate. The finding is closed.

CAR02 is now closed.

CAR ID	03	**Section no.**	D.2	**Date :** 23/08/2024
Description of CAR				

Following gaps were identified in ex-post parameters listed under section D.2. of the MR:

1. The parameter 'Principle 9.5: Release of pollutants (Waste Oil)' is missing but was identified as a potential impact during validation as confirmed from the PDD section D.1.
2. For parameter 'HGpj,k,y'. the notation is inconsistently mentioned in tab 'baseline emissions-heat' of the ER sheet and formula for the calculation is not described in the MR.
3. For parameter Vi, t, db, the ER sheet applies a default value while the MR requires it to be a monitored parameter with continuous monitoring frequence. Please explain how the compliance with methodology and registered monitoring plan has been ensured.
4. For FCi,j,y, PP shall elaborate the process of measuring and recording the parameter and explain the document prepared for the same.
5. For parameter Quality of Employment, PP shall add list of training topics in the MR.
6. For $N_{AA,LT}$, it was found that some of manure providers are contracters/aggregators. It is not clear how the farm population is determined in such cases. The parameter is required to be daily monitored by animal number counting by the farm owners.
7. $B_{0,LT}$ for Dairy Cow Manure and $B_{0,LT}$ for Dairy Poultry Manure are ex-ante parameters as per the registered PDD however they are listed as ex-post parameter. PP shall explain how the approach is consistent with the applied methodology and seek design change(change to monitoring plan)

Project participant response	**Date :** 04/11/2024

1. Added as parameter.
2. Revised as HGpj,k,y.
3. The value is monitored daily, and the records are provided.
4. Since this parameter is not used in PEtrans calculation as per the tool and registered PDD, it does not have continuous monitoring mechanism.
5. Added.
6. Farm owners keep the head count record daily.
7. Revised as ex-ante.

Documentation provided by project participant

VVB assessment	**Date:** 27/11/2024

1. PP has not submitted any evidence to confirm proper management of waste oil. Open.
2. PP has not clarified the formula for 'HGpj,k,y' in MR. Open.
3. Records could not be traced. PP shall transparently inform the title of the document which contains the continuous data is presented for Biogas parameters. Open

   Moreover, PP shall also justify the least count of the measuring equipment for Biogas data presented in worksheet '2022 Biogas' of ER sheet as the column B has values upto 10 places after the decimal and column B has whole numbers. Open
4. Page 17 of applied meth states that 'poject emissions from fossil fuel combustion in process j during the year y. The project emissions from fossil fuel combustion will be calculated following the latest version of "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion". For this purpose, the processes j in the tool corresponds to all fossil fuel combustion in the AWMS (not including fossil fuels consumed for transportation of feed material and sludge or any other on-site transportation)'. Use of diesel generator was confirmed during site visit and project emissions from the same shall be deduced. Please explain why the parameter has been linked to transportation. Open.
5. PP is requested to add English title to training files shared for easy identification. Open.
6. PP shall specify what document is being presented to demonstrate daily recording. Open
7. Parameters requires to be monitored annually in line with the methodology. PP shall explain how the methodology has been followed with respect to monitoring requirements for this parameter. Open.

Thus, the finding is open.

Project participant response	**Date :** 06/12/2024

1. Waste oil management documents have been provided in the "Waste Oil Records" file previously.
2. Added under calculation method of the parameter.
3. Daily biogas production values have been submitted in "Heat and Biogas Generation Records" file with "Daily_Biogas&Heat&CH4 analysis" excel file. Decimal of WWTP Biogas is revised.
4. There is a diesel generator in site, however it is used rarely (less than 500 hours/ year). Therefore, emission from the generator is negligible, diesel generator usage records are submitted.
5. Document names are changed.
6. -
7. Daily production values have been submitted in "Heat and Biogas Generation Records" file with "Daily_Biogas&Heat&CH4 analysis" excel file.

Documentation provided by project participant

VVB assessment	**Date:** 18/12/2024

1. The verification team has reviewed the submitted oil disposal records and confirmed that it covers the monitoring period, the assessment team verifies the oil disposal records. CLOSED
2. Total value of HGpj,k,y is 57.03TJ in tab 'baseline heat', 'cell C12' of ER sheet, while MR page 81 mentions 46.64. Open
3. The assessment team has reviewed the Daily_Biogas&Heat&CH4 data sheet and it is observed that decimals in the Daily_Biogas&Heat&CH4 analysis sheet updated adequately. CLOSED
4. The generation records are reviewed, and it is verified that the diesel generator has been used for short durations and that the emissions from the generator are negligible. CLOSED
5. The training records were checked and found to confirm the training topics mentioned in the MR. Closed.
6. Pending for response.
7. Daily recorded values as extracted from SCADA have been submitted now. Monthly values were verified already on site. Closed.

CAR#03 is OPEN

Project participant response	**Date :** 13/03/2025

2. Considering that PDD was meant, not MR, PDD was checked. In the PDD since the parameter is monitored parameter, estimated heat generation value has been written, and in the ER sheet, the value calculated value via monitored heat generation values.

6. Daily animal number records aren't available. Farm owners calculate an annual average based on daily animal numbers, and they sign a contract with this animal number. They state that animal waste will be provided based on the annual average number of animals calculated in the contract they signed with PO. If they provide waste from fewer or more animals outside of the contract, they will be legally out of contract.

Documentation provided by project participant

VVB assessment	**Date:** 27/03/2025

2. The formula applied for HGpj,k,y is inconsistent within MR and ER calculation sheet as explained below:

MR: HGpj,k,y = Produced Steam (ton/y)*(2,793 kj/kg - 427.5 kj/kg)*10^{-6}

ER calculation sheet: HGpj,k,y = Produced Steam (ton/y)*(2,793 kj/kg *427.5 kj/kg)*10^{-6}

PD shall clarify the inconsistency and include the correct formula consistent within MR (Sütaş_Tire_MR_v4_31.01.2025.docx) and ER calculation sheet (ER Calculations_Tire Biogas_VER_v4.xlsx). Open.

7. Justification has been accepted.

CAR 03 is open.

Project participant response	**Date :** 14/04/2025
2.ER sheet formula is revised based on MR formula.	
Documentation provided by project participant	
VVB assessment	**Date:** 21/04/2025
2. PD has now revised the formula applied for parameter HGpj,k,y and it is now consistent within MR and ER sheet. Closed. CAR03 is now closed.	

CAR ID	04	**Section no.**	A.4	**Date :** 23/08/2024
Description of CAR				
The start date of crediting period is 01/06/2022 as mentioned in PDD and validation report and this MP(i.e., first MP) also starts from the same date as per the signed contract and MR, however section A.4. of the MR mentions the start date as 01/01/2021.				
Project participant response				**Date :** 04/11/2024
Revised as 01/06/2022.				
Documentation provided by project participant				
VVB assessment				**Date:** 27/11/2024
The revision makes the dates consistent throughout the MR now. Thus the finding is closed.				

CAR ID	05	**Section no.**	D.1	**Date :** 23/08/2024
Description of CAR				
Following inconsistencies were observed in the ex-ante parameters under section D.1. of MR: 1. For parameter $EF_{CH4,default}$, The unit of the parameter is t CH4 leaked / t CH4 produced as per the applied methodology while MR mentions fraction. 2. For parameter Wdefault, The parameter table is distorted and does not mention the row of value applied. The value is mentioned under additional comments. 3. For parameter VS_{LT}, The description of the parameter is incorrect. The PDD mentions it as 'Annual volatile solid excretions for livestock LT entering all AWMS on a dry matter weight basis' while the MR mentions it as Density of CH4. 4. Parameter EFSO2, EFNOX(mentioned in MR and ER sheet), EFFF,CO2(applied in ER sheet) were not listed in the PDD.				
Project participant response				**Date :** 04/11/2024
1. Revised 2. Revised 3. Revised				
Documentation provided by project participant				
VVB assessment				**Date:** 27/11/2024
1. Section D.1. of the MR was checked and Revision was found corrected inline with the applied methodology and PDD. 2. Section D.1. of the MR was checked and Revision was found corrected inline with the applied methodology and PDD.				

3. Section D.1. of the MR was checked and Revision was found corrected inline with the applied methodology and PDD.

Thus, the finding is closed.

CAR ID	06	**Section no.**	E.1 & E.2	**Date :** 23/08/2024

Description of CAR

Following gaps were identified in the ER sheet:

1. For calculation of emissions from waste-water, it was understood that waste water treatment facility in not part of the project activity, however provides biogas to same cogeneration unit. The ER sheet applies to discount factor is determined in tab 'production' of ER sheet as ratio of Manure Biogas/Total Biogas and applied to baseline emissions from manure treatment from gas generated and baseline emissions from heat generation. However, the factor was not found to be applied to the baseline emissions from electricity generation.

2. Ex-ante emission calculation for current MP could not be found in the ER sheet. Moreover, the values are inconsistent between section E.5. and section E.5.1 of the MR

3. Tab 'Baseline Emission-Total', determine the value of VSLT through two methods. Please clarify why country specify value has been determined if the default value from IPCC has been used in the calculation of final ERs. If it is for comparison, then it shall be noted that the country specific values are lower than IPCC values, however the calculation considers IPCC values. Please explain the reason.

4. Tab 'Baseline heat' , cell A13 of ER sheet applies a ratio of $1/3^{rd}$ to determine a value of EGthermal,y (1/3 ratio). PP shall explain what is the significance of the value and why 1/3 ratio is applied?

5. PDD and MR have not considered/established the equations for flaring(Tool 6) and quantity of biogas(Tool 8), However both are applied in the ER sheet. PP shall consider correcting both the documents.

Project participant response | **Date :** 04/11/2024

1. The factor is applied to electricity generation too.
2. Ex-ante calculation is added to ER sheet, and inconsistency is corrected.
3. Inconsistency is fixed. In the registered PDD the VS values are taken from IPCC values, so the IPCC values are considered.
4. The value is insignificant, removed.
5. They are removed.

Documentation provided by project participant

VVB assessment | **Date:** 27/11/2024

1. The factor has been corrected. Closed.
2. Please specify the tab and cells of ER sheet where Ex-ante calculation is added. Open.
3. PP has considered IPCC values in line with the PDD. However, it is for dairy animal while the project includes both dairy and meat farms. Closed.
4. The factor has been removed. Closed.
5. Equations are required to be mentioned in line with the applied tool and methodology. Open

Project participant response | **Date :** 06/12/2024

2.It is added in the Emission Reduction tab. It was missed in previous version.
5. In the applied methodology Project emissions from flaring is PDD addition of the equations is not considered since equations are mentioned in the ER sheet (which is also a GS approved

document) of the design review procedure. Equations are added to MR in accordance with this comment.

Documentation provided by project participant

VVB assessment | **Date:** 17/12/2024

2. Ex-ante estimation has not been done considering the values from PDD/Ex-ante sheet validated by the Validating DOE. The estimated ERs for each year was 87373tCO2e and for current year ERs are deduced to be 155356. Also, this concludes that achieved ERs (195608) are higher than estimated. PP shall justify the reason for increase in ERs. Open.

F	G	H	I
		number of	DM remark
22/08/22	31/12/22	132	31598
		365	87373
01/01/24	31/05/24	152	36385
	total	649	155356

5. Since the flare unit has not been utilized as reviewed in the physical site visit, the PE from flaring is 0. The formulae regarding flaring has been added in line with Tool 6 - Tool to determine project emissions from flaring gases containing methane under section E.2. CLOSED.

CAR#06 is OPEN

Project participant response | **Date :** 13/03/2025

In the PDD estimated ER has been calculated as 116,133 tonnes, not 87373. You may kindly check the PDD page 78. Thus, there is no increase in ER as can be seen in ER sheet_v4

Documentation provided by project participant

VVB assessment | **Date:** 26/03/2025

The estimated annual ERs in the design certification/validation report (dated 04/06/2024) and PDD (dated 18/04/2024) uploaded to GS registry, are 114851 tCO_2e. The screenshot of the validation report and PDD is shared below:

PROJECT NUMBER: 622

Organizational Unit:	Re Carbon Ltd. Carbon Department		
Project Title:	SUTAS Tire Biogas Plant		
Project Number:	**Client:**		**Current PDD Version:**
622	ENFAŞ ENERJİ ELEKTRİK ÜRETİM A.Ş.		08
Date of First Issue:	**Date of Current Version:**	**Version Number:**	**Number of Pages:**
21/10/2021	04/06/2024	06	140

Summary:
Host Country: Turkey
Project is Reviewed Against:
☒ Kyoto Protocol ☒ UNFCCC CDM rules and regulations and associated documents
☒ Gold Standard rules and regulations ☐ Other (Please Specify)
Methodology: The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, Version 07.0.0) **Version:** 1.0
Average Annual Emission Reduction Estimate: 114,851 tCO_2e
Project Size: ☒ Large Scale ☐ Small Scale ☐ Micro Scale

Type of Crediting Period:	**Crediting Period Start Date:**
☒Renewable ☐ Fixed	01/06/2022

20242	121,789	5,656	116,133
20253	121,789	5,656	116,133
20264	121,789	5,656	116,133
01/01/20275 - 31/05/20275	50,384	2,340	48,044
Total	**602,538**	**28,281**	**574,257**
Total number of crediting years			
Annual average over the crediting period	120,508	5,656	114,851

PD shall revise the ex-ante values of annual ERs in the MR and ER calculation sheet as per the validation report and corresponding PDD. Open.

Project participant response | **Date :** 14/04/2025

The value 114,851 as average covers for all crediting period. For one year estimated value is calculated as 116,133. Please check "Emission Reduction" sheet "Summary of ex ante estimates of emission reductions" table and Section E.5.1 in MR. Also, in each case, an increase is observed now compared to estimated value, therefore an explanation is added to related section.

Documentation provided by project participant

VVB assessment | **Date:** 21/04/2025

The clarification provided by PD for annual estimated ER calculation during design certification is deemed appropriate by the assessment team. PD has considered year wise annual ER values

instead of average over 5-year crediting period. The respective section E.5 has also been revised reflecting the same approach. Closed.

CAR06 is now closed.

CAR ID	07	**Section No.**	D.2	**Date :** 27/11/2024

Description of CAR

For Data and parameters monitored, PP is requested to mention the correct source of value(primary document) and exact document title of evidence provided for data verification:

1. $EG_{d,y}$
2. HGpj,k,y
3. Vf (coming from wastewater treatment plant)
4. Biogas (total biogas goes to gas engines)
5. $F_{RG,m}$
6. Vi, t, db
7. SPECflare
8. Air Quality
9. **Waste Oil**
10. FCi,j,y
11. **$NAA_{L,T}$**
12. FRf,m
13. Organic fertilizer

Project participant response | **Date :** 06/12/2024

1. EGd,y - EPIAS records screenshots which is included in Electricity generation records submitted with first version of the documents.
2. HGpj,k,y – Heat consensus forms that indicates sold steam amount to dairy factory. They were submitted with second version of the documents in the Heat and Biogas Generation Records file.
3. Vf (coming from wastewater treatment plant) – SCADA records which is given in Daily_Biogas&Heat&CH4 analysis document.
4. Biogas (total biogas goes to gas engines) – SCADA records which is given in Daily_Biogas&Heat&CH4 analysis document.
5. FRG,m – Flare has not been used since the installation of the plant.
6. Vi, t, db - SCADA records which is given in Daily_Biogas&Heat&CH4 analysis document.
7. SPECflare – Technical specification of the flare unit. Flare unit nametag photos are submitted.
8. Air quality is calculated for SDG contribution, it is calculated via EPIAS records and other related information reference are given in the ER.
9. Waste oil records submitted previously with delivery forms in the Waste Oil Records file.
10. FCi,j,y - For all diesel needs of the plant, there is tank, and records of purchased diesel for this tank is kept by a logbook in the site. However, usage records of diesel from the tank is not kept. Amount of FCi,j,y is calculated with longest distance to farm and value of fuel used per km by the truck. However, this value is not used any calculation of transportation emissions, project emissions form transportation is conducted by the mentioned took in the report.
11. NAA,L,T - The statements in the Animal Number Statements file
12. FRf,m – Weighbridge records which is included in file with same name.
13. Organic fertilizer – The source is weighbridge records, the records are included in Fermented Product file which has been submitted previously.

Documentation provided by project participant

VVB assessment	**Date:** 17/12/2024

1. Data has been provided to confirm the energy generation values. Closed.
2. The assessment team reviews the data provided and it is verified that the heat consensus data provided does not cover the whole monitoring period and data regarding the 2023(April – Dec) and 2 months (Jan and May) from 2024 has not been provided by the PP. OPEN
3. Vf parameter – Scada records have been submitted to confirm the values used in the ER sheet. Monthly values were also cross checked during the site visit. Closed.
4. Scada records have been submitted to confirm the values used in the ER sheet. Monthly values were also cross checked during the site visit. Closed
5. The assessment team observed that the flame unit has not been utilised with respect to inspection of the flare unit during the physical site visit and interviews conducted with the designated personnel in the facility. CLOSED
6. Vi, t, db - Scada records have been submitted to confirm the values used in the ER sheet. Monthly values were also cross checked during the site visit. Closed
7. The submitted name tags are reviewed, and the provided information regarding the technical specifications of the flare unit is provided and correctly mentioned in the MR. Closed.
8. The computations regarding the air quality are reviewed by the assessment team and adequate. CLOSED
9. The assessment team reviewed the waste oil that has been disposed of by local Ministry Forces, at least once a year. CLOSED
10. For FCi,j,y parameter, purchase record for diesel has been provided for cross verification. PP has determined the annual value from total waste value, maximum distance possible and truck capacity. which is acceptable as tool 12 does not have defined frequency and PP is anyway considering default https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-12-v1.1.0.pdf

Though this parameter (FCi,j,y) is for transportation. It is not clear what parameter is related to diesel consumption in DG and how project considers it. Open.

11. The data parameter $NAA_{, L, T}$ in section D.2, is crossed-checked with the ER sheet and animal count declarations that are provided by the farm owners, and the assessment team verifies that the provided information in the monitoring report is adequate. CLOSED
12. The weighbridge records are reviewed, and the assessment team verifies that the records are adequate. Closed.
13. The provided liquid and solid fertilizer records are submitted and found to be sufficient for current MP. CLOSED

CAR#07 is OPEN

Project participant response	**Date:** 13/03/2025

Heat consensus documents are provided.
There is no parameter regarding the DG usage since it is a electricity generation facility and DG is used just for emergency situations. Regarding the usage of DG, statements for 2022 and 2023 years has been provided and it can be seen that the possible emissions from usage of DG is negligible. The DG had been operated 4 hours in 2022 and 2023.

Documentation provided by project participant

VVB assessment	**Date:** 26/03/2025

2. The heat consensus data for missing months has now been provided by the PD. Closed.

10. As evident from the MR and ER calculation sheet, project emissions from transportation are calculated using Tool 12, which does not include parameter $FC_{i,j,y.}$ PD shall revise the MR and remove this parameter from section D.2 Data and parameters monitored. Open.

CAR07 is open.

Project participant response	**Date :** 14/04/2025

10.Parameter is removed.

Documentation provided by project participant

VVB assessment	**Date:** 21/04/2025
10. Parameter FCi,j,y has now been removed from the section D.2 of the MR. Closed. CAR 07 is now closed.	

Table 4. FAR from this verification

FAR ID	NA	**Section No.**	NA	**Date :** DD/MM/YYYY
Description of FAR				
NA				
Project participant response				**Date :** DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
VVB assessment				**Date:** DD/MM/YYYY
NA				

e.g., there is no FAR from this verification.

Appendix 5. Calibration Details

Meter type	Equipment serial number	Calibration date	Calibration frequency	Calibration results	Calibration entity
Electricity meter (Main Meter)	480922	14/10/2016	10	OK	TOSBI
Electricity meter (Spare Meter)	480923	14/10/2016	10	OK	TOSBI
Steam flow meter	M603B119000	08/06/2017	10	OK	Endress+Hauser
Flow meter 1 (Biogas from WWTP)	L80E2D02000	22/05/2019	10	OK	Endress+Hauser
Flow meter 2 (Biogas to gas engines)	L711FB02000	24/08/2016	10	OK	Endress+Hauser
Gas Analyzer*	323641	17/06/2021 18/10/2022	10*	OK	MRU
Weigh scale	UB00817649	Initial Inspection - 27/05/2022 Subsequent Inspection - 23/02/2024	10	OK	Turkish Standards Institute

**The gas analyzer in use has an annual calibration frequency. However, due to unavailability of MRU service centres across Türkiye, the calibration is conducted internally by the PD and a reported calibration from MRU centre is conducted at a frequency of 10 years.*