
VALIDATION REPORT

TOROS MERAM YENİLENEBİLİR ENERJİ

ÜRETİM A.Ş.

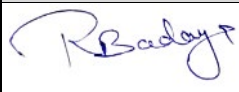

ALTACA MERAM BIOGAS

PLANT

IN

TURKEY

Organizational Unit:	Re Carbon Ltd.		
Project Title:	Altaca Meram Biogas Plant		
Project Number:	Client:	Current Version:	PDD
650	Toros Meram Yenilenebilir Enerji Üretim A.Ş.	09	
Date of First Issue:	Date of Current Version:	Version Number:	Number of Pages:
14/11/2022	08/01/2024	06	129
Summary:			
Host Country: Turkey			
Project is Reviewed Against:			
<input checked="" type="checkbox"/> Kyoto Protocol <input checked="" type="checkbox"/> UNFCCC CDM rules and regulations and associated documents <input checked="" type="checkbox"/> Gold Standard rules and regulations <input type="checkbox"/> Other (Please Specify)			
Methodology: The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste (ACM0010, Version 07.0.0) Version: 1.0			
Average Annual Emission Reduction Estimate: 110,277 tCO ₂ e			
Project Size: <input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale <input type="checkbox"/> Micro Scale			
Type of Crediting Period:	Crediting Period Start Date:		
<input checked="" type="checkbox"/> Renewable <input type="checkbox"/> Fixed	01/01/2021		
Project Developers:	Toros Meram Yenilenebilir Enerji Üretim A.Ş.		
Validation Stages:			
<input checked="" type="checkbox"/> Desk Review <input checked="" type="checkbox"/> Site Visit <input checked="" type="checkbox"/> Follow-up Interviews <input checked="" type="checkbox"/> Resolution of Outstanding Issues			
Validation Findings: During the validation 65 Corrective Action Requests and 16 Clarification Requests were raised, all of which were closed out before the issuance of this validation report. 00 Forward Action Requests were raised during the validation all of which shall be addressed during the initial verification of the proposed project activity.			
In summary, it is Re Carbon Ltd.'s opinion that the project activity "Altaca Meram Biogas Plant" in Turkey, as described in the PDD, version 09, dated 29/08/2023, meets all relevant UNFCCC requirements for the CDM, GS and all relevant host Party criteria and correctly applies the baseline and monitoring methodology 'The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste', version 1.0. Hence, Re Carbon Ltd. requests the registration of the proposed project activity as a GS project activity.			
Validation Team Leader:	Mr. Sandeep Kanda	Indexing Terms:	
Validation Team Members:	Ms. Öykü Yakupoğlu (Trainee Validator) Mrs. Fikriye Seda Atabek (Trainee Validator)	<input checked="" type="checkbox"/> No distribution without permission of the client or responsible organizational unit	

Approved By (Technical Reviewer):	Name:	Signature:	<input type="checkbox"/> Limited Distribution
	Mr. Rohit Badaya		<input type="checkbox"/> Unrestricted Distribution
Mr. Abdulkadir Bektaş (TA 15.1 Expert)			

Abbreviations

BM	: Build Margin
CAR	: Corrective Action Request
CDM	: Clean Development Mechanism
CER	: Certified Emission Reduction(s)
CL	: Clarification request
CM	: Combined Margin
CO₂	: Carbon dioxide
CO_{2e}	: Carbon dioxide equivalent
DNA	: Designated National Authority
DOE	: Designated Operational Entity
DR	: Document Review
EF	: Emission Factor
EIA	: Environmental Impact Assessment
ER	: Emission Reductions
ERPA	: Emission Reduction Purchase Agreement
FAR	: Forward Action Request
FSR	: Feasibility Study Report
GHG	: Greenhouse gas(es)
GS	: Gold Standard
GS4GG	: Gold Standard for Global Goals
GWP	: Global Warming Potential
I	: Interview
IPCC	: Intergovernmental Panel on Climate Change
IRR	: Internal Rate of Return
kWh	: Kilo Watt Hour
LoA	: Letter of approval
MoV	: Means of Validation
MW	: Mega Watt
MWh	: Mega Watt Hour
NCV	: Net Calorific Value
NGO	: Non-governmental Organisation
ODA	: Official Development Assistance
OM	: Operating Margin
PDD	: Project Design Document
PD	: Project Developer(s)
tCO_{2e}	: Tonnes of CO ₂ equivalents
UNFCCC	: United Nations Framework Convention on Climate Change



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1. EXECUTIVE SUMMARY – VALIDATION OPINION

Re Carbon Ltd. performed the validation of the “Altaca Meram Biogas Plant” in “Turkey” between 20/06/2022 and 04/01/2024. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism (CDM), Gold Standard for Global Goals (GS4GG) and Host Party criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

As a result of this validation, Re Carbon Ltd. concludes the following:

- The review of the project design documentation and the subsequent follow-up interviews have provided Re Carbon Ltd. with sufficient evidence to determine the fulfillment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and Gold Standard for Global Goals. Therefore, Re Carbon Ltd. recommends the project for registration by the Gold Standard.
- The review of the project design documentation and the subsequent follow-up interviews have not provided Re Carbon Ltd. with sufficient evidence to determine the fulfillment of all stated criteria. Therefore, Re Carbon Ltd. do not recommend the project for registration by the Gold Standard and will inform the project developer(s) and the Gold Standard on this decision.

2. INTRODUCTION

2.1. Objective

Re Carbon Ltd. was appointed by “Toros Meram Yenilenebilir Enerji Üretim A.Ş.” to perform the validation of the “Altaca Meram Biogas Plant” in Turkey through a contract, dated 25/01/2021. The objective of this validation activity is to have an independent third party for the assessment of the project design, and to ensure a thorough assessment of the proposed project activity against the applicable CDM and GS4GG requirements. In particular;

- the project's baseline is assessed against “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste”, version 1.0.
- the project’s monitoring plan is assessed against “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste”, version 1.0.
- the project’s additionality justification is assessed against “Combined tool to identify the baseline scenario and demonstrate additionality”, Version 07.0”
- the projects compliance with the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria
- CDM Validation and Verification Standard for project activities version 3.0
- CDM Project Standard for project activities version 3.0
- GS4GG version 1.2 and other relevant GS4GG requirements

Validation is a requirement for all GS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

2.2. Scope

The scope of the validation is the independent and objective review of the Project Design Document (PDD). The PDD is reviewed against the relevant criteria (see 2.1) and decisions by the CDM Executive Board, including the approved baseline and monitoring methodology. The validation was based on the guidance given in the CDM Validation and Verification Standard for project activities version 3.0, CDM Project Standard for project activities version 3.0, GS4GG version 1.2 and other relevant GS4GG requirements.

The validation team employed a risk-based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the PDD. The main focus of the validation team is to identify the significant risks for the project implementation and the generation of CERs. The validation is not meant to provide any consulting towards the project

developers. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

The only purpose of the validation is its usage during the registration process as part of the GS project cycle. Therefore, Re Carbon Ltd. cannot be held liable by any party for decisions made or not made based on the validation opinion, that will go beyond that purpose.

2.3. GHG Project Description

Altaca Meram Biogas Power Plant is operated by Toros Meram Yenilenebilir Enerji Üretim A.Ş. The project activity is located in Çomaklı village, Meram district, Konya province, Turkey. The main waste source for the project is cattle manure and chicken manure. Small amount of agricultural wastes are also used as a waste source in the project site. The plant includes four engines. Each engine has an installed capacity of 1.544 MWm/1.501 MWe. Therefore, the total installed capacity of the project activity is 6.176 MWm / 6.004 MWe. Related annual expected electricity generation is 42.028 GWh as per the provided generation license. Heat generated at the plant is used at the facility to warm the digesters, the electricity generated is directly fed to the Turkish national grid.

About 245,645 ton/year as cattle manure, chicken manure and agricultural waste generated are collected daily through special trucks to be fed into the proposed biogas power plant. It is confirmed with EIA report of the project, 47.5 % of this amount is belonged to cattle manure (116,800 ton/year), 50.9% of this amount is belonged to chicken manure (125,195 ton/year) and rest of it belonged to agricultural wastes (3,650 ton/year).

The project start date is 01/12/2019 corresponding to the construction agreement. The crediting period start date of the project stated in the PDD is 01/01/2021 with choice of renewable crediting period.

2.4. Parties Involved

Toros Meram Yenilenebilir Enerji Üretim A.Ş. is the private entity project participant in the project and host country is Turkey.

3. METHODOLOGY

The validation of proposed GS project activity includes the following phases:

- Assessment whether the project design of the proposed GS project activity meets the relevant CDM and GS requirements, via a desk review of the PDD between 20/06/2022 and 04/01/2024.
- Assessment whether the applied methodology “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste”, version 1.0, was applied correctly, including the baseline selection and monitoring plan.
- Assessment of the additionality argument of the project activity against the rules and guidance given in “Combined tool to identify the baseline scenario and demonstrate additionality”, Version 07.0”.
- A physical site visit was conducted on 22/06/2022 in order to assess the implementation process of the project activity and to confirm stakeholders’ comments.
- Assessment of data and calculation of greenhouse gas emission reductions.
- Issuance of the validation report
- Independent technical review (ITR)
- Approval of the validation report and request of registration

The Validation Protocol is used for the assessment of each requirement during the execution of validation activities and is given in Annex-1 of this validation report.

The Validation Protocol consists of two tables:

- Table 1 (GS-PDD-FORM, GS4GG and CDM Validation Requirements)
- Table 2 (Resolution of Corrective Action, Forward Action and Clarification Requests)

The usage description of Table-1 in the Validation Protocol is explained in Table 3-1 below:

Table 3-1: Explanation about Table-1 in the Validation Protocol

Question	Reference	MoV*	Findings, comments, references and document sources	Draft & Final Conclusion
The requirements related with the GS-PDD Form, GS4GG and CDM validation Standards and/ or Procedures	Gives reference to the legislation or documents where the relevant requirement is found	Explains how conformance with question is investigated. Examples of means of validation are Document Review (DR), Interview (I) and Not Applicable (NA)	Is used to elaborate and discuss the question and/or conformance to the question by giving related references and document sources based on which the finding is issued or evidence is checked	Either acceptable based on the evidence provided (OK), non-compliance with the requirement (CAR), further clarification (CL) due to insufficient, unclear or not transparent information, forward action request (FAR) that needs to be solved during the first verification

The usage description of Table-2 in the Validation Protocol is explained in Table 3-2 below:

Table 3-2: Explanation about Table-2 in the Validation Protocol

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Questions in Table-1	Summary of Project Developers' Response	Validation Team Conclusion
The all CL, FAR and CARs determined during the draft validation report should be listed here	Gives reference to the checklist questions in Table-1 of Validation Protocol	Is used to summarize the responses by project developers regarding the non-conformities	Is used to summarize the responses by validation team and their conclusions

The Validation Protocol is written by the validation team in line with the descriptions above and all the CARs, CLs and FARs are listed in a transparent and clear manner.

3.1. Validation Team and ITR Selection

The appointment process of the validation team takes into account the technical area(s), sectoral scope(s), and the related host country experience required amongst team members for the accurate and thorough assessment of the project design. The relevant GS validation and previous ITR experiences are also assessed during the selection of the team members and the Independent Technical Reviewer (ITR), respectively. The validation team and ITR were assigned to this validation activity on 13/06/2022 (the latest team change date), taking all the above factors into consideration and as a result of a contract review process.

The validation team members and ITR are listed in Table 3-3 below:

Table 3-3: Validation team and ITR details

Name	Role	Host Country Experience	Scope Coverage	Technical Expertise	Financial Expertise	Involvement*
Sandeep Kanda	Team Leader	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	A, DR, SV, R
Öykü Yakupoğlu	Trainee Validator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A, DR, SV, R
Fikriye Seda Atabek	Trainee Validator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A, DR, SV, R
Abdulkadir Bektaş	TA 15.1 (ITR) Expert	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ITR
Rohit Badaya	ITR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ITR

* Explanations for the abbreviations used for involvement types are as follows:

- A : Administrative
- DR : Desk Review
- SV : Site Visit
- RA : Remote Assessment
- R : Reporting
- ITR : Independent Technical Review

3.2. Desk Review of the PDD and Additional Documents

The basis for the validation activity is the PDD version 01, dated 02/06/2022 which was submitted to the validation team on 20/06/2022. This PDD was revised several times due to the raised CARs and CLs, version 09 dated 29/08/2023 being the final version. The PDD was assessed against;

- The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste - Version 1.0 and the associated tools,
- the Host Country criteria
- CDM Validation and Verification Standard for project activities version 3.0
- CDM Project Standard for project activities version 3.0
- GS4GG version 1.2 and other relevant GS4GG requirements
- and other relevant documents, rules and regulations listed in section 2.1 of this report

A list of all the documents that were reviewed can be found in Section 6 of this validation report.

3.3. Site Visit(s)

As a part of the validation activities, a physical site visits was performed to the project activity site, details of which can be seen in the Table 3-4 below:

Table 3-4: Site visit details

Date	22/06/2022	
Location	Meram, Konya	
Participant	Company Name	Role in the Organization / Role in the Site Visit
Engin Koç	GTE	Consultant
Abdullah Dağdelen	Toros Meram	HSE Chief
Ahmet Kaşmaz	Çomaklı Village	Mukhtar
Fatma Çelik	Çomaklı Village	Villager
Sefa Çelik	Çomaklı Village	Villager
Fikriye Seda Atabek	Re Carbon Ltd.	Trainee Validator
Öykü Yakupoğlu	Re Carbon Ltd.	Trainee Validator
Sandeep Kanda	Re Carbon Ltd.	Team Leader
Points Verified	Source of Information	
To confirm rightness of project description, as per GS PDD including project components and location	Document review and on-site visit interviews with the local stakeholders from Çomaklı Village	
To check the project development and operation	Document review and on-site visit	

To interview with the local stakeholders about the project and its impacts	On-site visit interviews with the local stakeholders from Çomaklı Village
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3.4. Reporting of Findings via the Validation Protocol

During the validation period, a Validation Protocol (attached in Annex 1 to this validation report) was used to submit the findings to the project developers.

In line with the “CDM Validation and Verification Standard”, the team reports the non-conformities in the form of Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs). When and for which type of non-conformities CARs, CLs and FARs are raised is explained below:

- The Validation team raises a **CAR** if one of the following occurs:
 - The project developers have made mistakes that influences the ability of the project activity to achieve real, measurable additional emission reductions
 - The CDM and/or GS4GG requirements have not been met
 - There is a risk that emission reductions cannot be monitored or calculated.
- The Validation team raises a **CL** if information is insufficient or not clear or not transparent enough to determine whether the applicable CDM and/or GS requirements have been met.
- The Validation team raises a **FAR** during validation to highlight issues related to project implementation that require review during the first verification of the project activity.

According to these principles total of 65 CARs, 16 CLs and 00 FARs were raised, all of which are listed in the Validation Protocol.

3.5. Follow-Up Interviews

During the validation period follow-up interviews were executed by the validation team in order to further analyze the correctness and accurateness of the information provided. A list of individuals interviewed is given in Section 5 of this Validation Report.

3.6. Resolution of Outstanding Issues

All issues raised as CLs and CARs during this validation activity, were resolved during the written and oral communications between the Project developer(s) and Re Carbon Ltd. validation team members. For the resolution of these non-conformities, the project developer(s) modified the project design, rectified the PDD or provided adequate additional explanations or evidence that satisfy the concerns of the validation team members.

Concerns raised in the desk review, the on-site audit assessments and the follow up interviews and the responses provided for the raised concerns are documented in Annex 1 (Validation Protocol) to guarantee the transparency of the validation process.

The validation timeframe is given in detail in Table 3-5 below:

Table 3-5: Validation Timeframe

Desk Review	20/06/2022	14/11/2022	148
Review of the PDD version 01	08/07/2022	12/07/2022	5
Site Visit	22/06/2022	22/06/2022	1
Issuance of the Validation Protocol version 01	12/07/2022	12/07/2022	1
Review of PDs Initial Set of Responses	07/11/2022	09/11/2022	3
Issuance of the Validation Protocol version 02	09/11/2022	09/11/2022	1
Review of PDs Second Loop Responses	10/11/2022	11/11/2022	2
Issuance of the Validation Protocol version 03	11/11/2022	11/11/2022	1
Review of the PDs Third Loop Responses	11/11/2022	11/11/2022	1
Closing of all the CARs and CLs	11/11/2022	11/11/2022	1
Issuance of the Validation Report version 01	14/11/2022	14/11/2022	1
ITR Process	14/11/2022	18/11/2022	5
Issuance of the Validation Report version 02	20/11/2022	20/11/2022	1
Submission for Final Approval	20/11/2022	20/11/2022	1
Submission to the PD	21/11/2022	21/11/2022	1
GS Review Rounds	11/03/2023	08/01/2024	304

Information or clarifications provided as a response to a CAR, CL or FAR could also lead to a new request. This can also be seen transparently in the Validation Protocol provided in Annex 1 of this Validation Report.

3.7. Internal Quality Control

As a final step of validation, the final documentation including the validation report and annexes must undergo an internal quality control by Re Carbon Ltd. This quality control is also referred to as the “Independent Technical Review” process.

The Independent Technical Review is performed by another Team Leader of Re-Carbon Ltd. who was not involved in the validation activities of this specific project activity. When the appointed Team Leader finalizes the Validation Report, the report is sent to the (for this project specifically appointed) Independent Technical Reviewer who reviews not only the validation report itself, but also all supporting documents such as the emission factor calculations, additionality justifications, relevant excel sheets etc.

Further CLs and CARs may be raised by the Independent Technical Reviewer during this review, in order to cover all the points that may need further clarification.

After all CLs and CARs are closed, the validation report is again reviewed and finally approved by the Team Leader, ITR and the Certification Manager, and the request for registration is submitted to the Project Developer along with the relevant documents.

4. VALIDATION FINDINGS

4.1. Participation Requirements

The project participant is Toros Meram Yenilenebilir Enerji Üretim A.Ş. (Project Owner, Private Entity)

Turkey is the host country. Turkey ratified the Kyoto Protocol on 5th February of 2009 and put in effect on 13th May 2009. Turkish National Focal Point to the UNFCCC is the Ministry of Environment and Forestry.

Through document review and on-site interview, Re Carbon Ltd. confirmed that the project participants as listed in PDD are correct. It is also confirmed that no entities other than those authorized as project participant are included in the relevant sections of the PDD.

4.2. Project Design

The Project Design Document (PDD) complies with the guidance given in the “Gold Standard for the Global Goals Key Project Information & Project Design Document (PDD)”, Version 1.2 issued by Gold Standard on 14/10/2020.

4.3. Project Description

The proposed project activity is a greenfield biogas-to-energy project that generates renewable energy by capturing biogas from anaerobic digestion of organic wastes and utilizing it to produce thermal and electric energy through cogeneration system. The project is being implemented by Toros Meram Yenilenebilir Enerji Üretim A.Ş. in Meram district, Konya Province in Turkey. The proposed project activity uses organic wastes such as cattle manure, chicken manure and agricultural wastes collected from neighboring waste sources and provide an environmentally friendly solution to this manure management problem.

About 245,645 ton/year as cattle manure, chicken manure and agricultural waste generated are collected daily through special trucks to be fed into the proposed biogas power plant. It is confirmed with EIA report of the project, 47.5 % of this amount is belonged to cattle manure (116,800 ton/year), 50.9% of this amount is belonged to chicken manure (125,195 ton/year) and rest of it belonged to agricultural wastes (3,650 ton/year).

The plant includes four engines. Each engine has an installed capacity of 1.544 MWm/1.501 MWe. Therefore, the total installed capacity of the project activity is 6.176 MWm / 6.004 MWe. Related annual expected electricity generation is 42.028 GWh as per the provided generation license. Heat generated at the plant is used at the facility to warm the digesters, the electricity generated is directly fed to the Turkish national grid.

The proposed project activity will not only reduce greenhouse gas (GHG) emissions that would otherwise be emitted directly to the atmosphere from manure left to decay in anaerobic conditions, but also will provide sustainable development benefits to the host communities and the host country.

The license of the project confirming the capacity was issued by Energy Market Regulatory Authority (EMRA) on 04/10/2018, and the same too was validated during the document

review. The project was fully commissioned at the time of on-site visit on 22/06/2022 and supplying electricity to the grid. The project is in compliance with the Turkish regulations. Toros Meram Yenilenebilir Enerji Üretim Anonim Şirketi is the generation license owner of the project activity.

The project contributes directly to achieving 'SDG#7: Affordable and clean energy' being a renewable electricity generation project; 'SDG#8: Decent work and economic growth' through employment generation and trainings; 'SDG#12: Sustainable Consumption and Production' through better waste management and 'SDG#13: Climate Action', by collection and use of methane for energy generation and displacing fossil fuel-based grid electricity, thereby reducing CO₂ emissions.

The biogas project is not gender sensitive project and does not adversely impact women or men. The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation, or any other basis.

Through document review and on-site interview conducted, Re Carbon Ltd. confirms that the description provided of the project is accurate, complete, and provides an understanding of the nature of the project.

4.4. Project Boundary

The boundary (geographically and related to GHG sources / sinks) are correctly given in section B.3 of the GS PDD and justified for the project activity. The spatial extent of the project boundary is clearly defined in line with The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)", version 1.0.

The spatial extent of the project boundary encompasses the livestock (farms where the cattle and poultry manure gathered) and central treatment facility including the storage tanks. The boundary also includes the onsite flare and electricity generation equipment. The road itineraries between the manure collection points, waste/ residue transportation, the central treatment plant and solid waste disposal site (There are 13 farms in total for the project activity, the agreements between the project owner and the farmers have been provided by the PP.) are also part of project boundary. Also, all power plants connected physically to the electricity system (grid) that the project plant is connected to are included. This spatial extent is in line with the applied methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)", version 1.0.

All the GHG allowed under the applied and applicable GS methodology are considered both in the baseline and project emissions (CO₂, CH₄, N₂O). There are no other sources which are impacted by the project and not addressed by the applied methodology.

The project boundary confirmed during the on-site visit along with the documentary evidence was found in conformance with the applied baseline methodology. All sources of GHG emissions required by the methodology have been included in the project boundary and are justified in reference to the project activity. There are no project emissions/leakage emissions of any sort which are not addressed by the applied methodology occurring because of the project activity.

4.5. Determination of the Baseline Scenario

As per “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)”, version 1.0, the baseline scenario for the waste treatment is considered as animal manure being left to decay in uncovered anaerobic lagoons within the project boundary and methane emitted to the atmosphere. The continuation of this operation of open lagoons is likely as the animal farms can treat the effluent in accordance with the local regulations. On the other hand, an alternative treatment method of directly discharging the manure to the water course is not plausible as this would not meet legal requirements.

Further, in the baseline scenario, the farm owner will not recover any methane generated by the anaerobic lagoons either for on-site utilization or flaring, the same is confirmed by the validation team as there is no regulation mandating to do so. Furthermore, the baseline scenario of open anaerobic lagoons was also confirmed through on-site visit.

For the electricity generation, the baseline scenario is electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system”. The project supplies electricity generated from the gas engines to the national grid. Thus, the PDD correctly identifies baseline scenario comprised of electricity generation from grid-connected power plants in Turkey. The Combined Margin calculations as described in the Tool to calculate emission factor of an electricity system has been applied in the PDD.

Based on the site-visit and by cross-checking the information with similar relevant projects, also based on the validation team’s local and sectoral knowledge, it is confirmed that the selected baseline scenario is the prevailing practice in the host country and in line with the host country regulations.

All the assumptions and data used by the PPs are listed in the PDD, including references and sources, all the references and documents used are relevant for establishing the baseline scenario and correctly quoted in the PDD, all relevant national and sectoral policies/regulations considered are listed in the PDD and the identified baseline scenarios reasonably represented what would occur in the absence of the proposed project activity.

4.6. Application of the Selected Baseline and Monitoring Methodology or Standardized Baseline

Re Carbon Ltd. has assessed the relevant information contained in the PDD, on-site visit and evidence obtained against the application criteria listed in the methodology. The applicability of this methodology is justified as below:

- The proposed project activity is a greenfield single central treatment plant for manure management from multiple livestock farms where there is existing anaerobic manure treatment system. The same has been confirmed from the EPDK license issued to the project on 04/10/2018 and the on-site visit of the existing cattle farms and lagoons.

- The farms wherefrom the animal waste is being treated manage the livestock in confined conditions as confirmed through the on-site visit of the existing cattle farms and submitted documentary evidence.
- The depth of the existing lagoons at the farm being more than 1 m was validated based on the on-site visit and observations of the existing cattle farms.
- The annual average ambient temperature at the site where the anaerobic manure treatment facility in the baseline existed is higher than 5°C, at about 11.7°C, as confirmed through the Turkish official metrology statistics.
- The minimum retention time of manure waste in the baseline anaerobic lagoons is greater than 1 month, as confirmed through the on-site visit of the existing cattle farms.
- The project AWMS does not lead to leakage of manure waste into ground water, as confirmed from the design specifications of the digestors.
- The project does not store residue in between the collection activities as confirmed through the design specifications and layout.
- The manure/treated residue usage as fertilizer in the baseline and project is confirmed through the interviews with the local stakeholders.
- The emission reductions are being claimed by the central treatment plant only.
- The project is generating renewable electricity from the biogas and connected to the Turkish national grid,
- The geographic and system boundaries for the Turkish national electricity grid can be clearly identified and information on the characteristics of the grid is available.

According to “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)”, version 1.0, the latest approved tools shall be referenced in PDD like, “Tool to calculate the emission factor for an electricity system” (Version 7) and “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 7.0), which are the latest versions of the tools valid at the starting time and the above tools are applied to the PDD.

Also, some ex-ante parameters were selected by the PP to calculate emissions during the crediting period:

- EF_{grid} : Grid emission factor = 0.5552 tCO₂/MWh¹
- VS_{LT} : Annual volatile solid excretions for livestock LT entering all AWMS on a dry matter weight basis (kg -dm/animal/yr) = 1,642.5 (for cattle manure) and 7.30 (for chicken manure) (**Reference:** IPCC 2006 vol.4, chapter 10, Table10A-4 and Table 10A-9).
- D_{CH_4} : Density of CH₄ = 0.00067 t/m³ (**Reference:** The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure

1

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

Management Systems and Municipal Solid Waste (ACM0010, version 07.0)”, version 1.0)

- $EF_{CH_4, default}$: Default emission factor for the fraction of CH_4 produced that leaks from the anaerobic digester = 0.028 (**Reference:** “Project and leakage emissions from anaerobic digesters”, Version 02.0)
- GWP_{CH_4} : Global Warming Potential for CH_4 = 28 tCO_2/tCH_4 (**Reference:** Default value from IPCC is used as per the applied methodology)
- $f_{CH_4, default}$: Default value for the fraction of methane in the biogas = 0.6 m^3CH_4/m^3 (**Reference:** “Project and leakage emissions from anaerobic digesters”, Version 02.0)
- $\eta_{flare, m}$: Flare efficiency = 50% (**Reference:** Tool to determine project emissions from flaring gases containing methane, Version 1)
- EF_{SO_2} : SO_2 emission factor = 4.85 kg/MWh (**Reference:** Turkey 2022 National Inventory Submission to UNFCCC (2020 data covered) and TEIAS National 2020 Statistics)
- EF_{NO_x} : NO_x emission factor = 1.05 kg/MWh (**Reference:** Turkey 2022 National Inventory Submission to UNFCCC (2020 data covered) and TEIAS National 2020 Statistics)

Re Carbon Ltd. confirms that the selected baseline and monitoring methodology is applicable to the project activity and applies the latest version valid at the time of submitting the project activity for registration.

4.7. Additionality

The additionality of the project has been demonstrated using the “Combined tool to identify the baseline scenario and demonstrate additionality”, version 07.0.

In accordance with combined tool, identification of alternatives, compliance with national regulations, investment analysis and common practice analysis have been checked by the validation team through document review, on-site visit and interview. Re Carbon Ltd. confirm that all data, rationales, assumptions and justifications presented in the PDD and documentation provided by PP to support the demonstration of additionality are reliable and credible.

4.7.1. Prior CDM consideration

The project start date is 01/12/2019 which is confirmed with the construction agreement. The prior consideration of carbon revenues by the project has been evidenced from the documentation carried out by the project prior to the start date with local stakeholder consultation and submission made to Gold Standard on 14/12/2017.

4.7.2. Project alternatives

The project proponent identifies following alternatives to the proposed project:

- Proposed project is not undertaken as a VER project activity
- Continuation of the current situation-supply of equal amount of electricity by the newly built grid connected power plantsThe first option, implementing the project without generating carbon income, is not financially attractive, as detailed in the investment analysis

(Section 4.7.3 of this report). The second choice (Scenario 2) is the baseline scenario, and the suggested project's implementation as a VER activity would be additional to it. Because continuation of the existing scenario is not regarded a realistic option due to rising electricity demand, new power facilities, mostly thermal power plants, need be built (This situation is explained in Section 4.5 of this report). Therefore, implementation of the project is additional to the baseline scenario.

The list of these alternatives is considered to be complete, viable and realistic and comply with all applicable legislation. The TEIAS statistics have been checked to validate the same.

The other alternatives mentioned in the applied methodology are not suitable since:

- the project does not use municipal solid waste (MSW). Therefore, from M1 to M9, none of the alternatives is suitable for the project activity.
- the applied methodology indicates that baseline emissions due to electricity generation can be accounted for only if the baseline scenario is E3, E4 and E5. Therefore, E2 is not a suitable alternative. Also, project activity does not include fossil fuel fired captive power plant. Therefore, E4 and E5 are not suitable alternatives as well.
- the project does not have heat generation unit. Therefore, from H1 to H7, none of the alternatives is suitable for the project activity.

As per “Step 1a: Define alternative scenarios to the proposed CDM project activity” in the “Combined tool to identify the baseline scenario and demonstrate additionality (version 07.0.0): Scenarios 4, 5, and 6 are not relevant since there is no need for investment to maintain the existing status or no reason to predict a change in rules and so on. Scenario 1, which is the project's execution without carbon income, is not financially attractive, as detailed in the investment analysis (Section 4.7.3 of this report). Scenario 2 is also unfeasible since energy demand is rising and Turkey need additional power plant investment (Section 4.5 of this report). The second and third scenarios partially and jointly comprise the baseline scenario, and the proposed project as a VER activity would be added to this scenario.

All the alternatives are in compliance with the national laws and regulations. The laws and regulations mentioned below have been reviewed by the validation team and no situation has been encountered that contradicts the selected alternatives:

- Electricity Market Law
- Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy
- Energy Efficiency Law
- Forest Law
- Environment Law
- Waste Management Regulation

Re Carbon Ltd. confirms that in the PDD, the identified alternatives are appropriate, credible, and complete.

4.7.3. Investment analysis

Equity IRR is calculated for the financial analysis.

Choice of approach

For the investment analysis, the Benchmark Analysis (Option III of Step 2 of Tool for the Demonstration and Assessment of Additionality) is selected in project PDD. The same is accepted since simple cost analysis (Option I) and investment comparison analysis (Option II) are not appropriate in line with the Tool for the Demonstration and Assessment of Additionality. The project accrues financial benefits with the sale of electricity to the grid and the alternative baseline scenario of the proposed project is the continuation of the supply of electricity by the grid rather than a comparable investment project.

Hence Re Carbon Ltd. Confirms that the adoption of Benchmark analysis (Option III) is appropriate.

Benchmark selection

As a benchmark, in line with the requirements of “Tool for the demonstration and assessment of additionality”, the project owner uses the benchmark rate according to the World Bank document “Implementation Completion and Results Report” (June 2017)² cited value of 20% for the threshold equity IRR. The validation team reviewed the World Bank report and also reviewed other registered projects in the region to confirm the choice of benchmark as appropriate.

Input Parameters

PP has calculated the IRR for a 19-year period, which is conservative. All the input parameters used in the financial analysis are taken from approved and trustworthy documents and all references are shown to the validation team.

Re Carbon Ltd. compared the input parameters for the financial analysis included in the PDD and IRR spreadsheet with the parameters stated in the reference documents listed in below table and was able to confirm that the values applied are consistent with the values stated in the references. IRR input documents were valid at time of investment decision.

Table 4-2 includes the inputs for IRR analysis and validation proofs:

Table 4-2: IRR Inputs

Parameter	Unit	Value	Reference Document
Installed Capacity	MW	6.004	Electricity Generation License
Annual electricity generation	GWh/year	42.028	Electricity Generation License
Capital Investment	Thousand USD	23,800	Project EPC Contract

² <https://documents1.worldbank.org/curated/en/799701498842988254/pdf/ICR00004069-06192017.pdf>

Parameter	Unit	Value	Reference Document
Operation & Maintenance cost (Total)	Thousand USD	1,329	This cost is derived from its components of Personnel and Administration costs, Raw Material Transportation Cost, Electricity Cost, Consumables Cost, Maintenance Cost, Insurance Cost, System Usage Expense, and Other Costs from the feasibility report.
Electricity sales tariff	USD cent / kWh	13.3	https://www.mevzuat.gov.tr/mevzuatmetin/1.5.5346.pdf
Corporate Tax Rate	%	20	https://www.mevzuat.gov.tr/mevzuatmetin/1.4.193.pdf
Depreciation	Thousand USD	13,300	Total depreciation
Insurance	Thousand USD	85	Feasibility study
Residual Value	Thousand USD	10,500	Based on project cost minus the depreciation value
Personel & ADM Cost	Thousand USD	302	Feasibility study
Raw Material Transportation	Thousand USD	360	Feasibility study
Electricity	Thousand USD	210	Feasibility study
Consumables	Thousand USD	25	Feasibility study
Maintenance	Thousand USD	225	Feasibility study
System Usage Expense	Thousand USD	59.126	Feasibility study
Other (for Operational Cost)	Thousand USD	63.277	Feasibility study

The inputs considered for the IRR calculations have all been verified, as follows:

Input	Reference
Capital Investment	The project cost has been cross-checked with other independent sources and similar projects. As per IRENA Renewable Cost Database, the project cost around the region with the waste type is about 4 million USD/MW. Thus, the project cost considered is found to be appropriate.
Labor	Feasibility report

cost	
Operati on and mainten ance cost	The O&M cost too has been cross-checked with other independent sources and similar projects. As per IRENA Renewable Cost Database, the O&M cost around the region with the waste type is about 0.05 USD/kWh. Thus, the project cost considered is found to be appropriate based on the annual total O&M and the associated electricity generation.

Calculation and Conclusion

Equity IRR has been calculated as 15.61% in the absence of carbon revenue.

The calculations were verified and found to be correct by Re Carbon. The assumptions used in the calculations were deemed to be correct by Re Carbon.

Sensitivity Analysis

Sensitivity analysis has been carried out for Investment Cost (±15%), Operating Cost (±15%), and Electricity Income (±15%). All the variables not included in sensitivity analysis, which constitute less than 20% do not have material impact on the analysis. Reasonable variations of the above stated parameters were checked as in Table 4-3 below:

Table 4-3: IRR Indicators

Fluctuating Indicators	Fluctuations	
	-15%	+15%
Investment Cost	19.56%	12.77%
Operating Cost	16.29%	14.91%
Electricity Income	12.29%	18.85%

Investment costs

The validation team validated the IRR calculations to confirm that the IRR would not cross the benchmark with even 15% drop in investment costs. Also, with the agreements in place the cost reduction has been ruled out.

Annual operation costs

The validation team validated the IRR calculations to confirm that the IRR would not cross the benchmark with 15% reduction in operating costs.

Annual generation

The validation team validated the IRR calculations to confirm that the IRR would not cross the benchmark when the income through electricity is increased by 15%. The income through electricity is a function of electricity generation and the tariff.

Therefore, it is not probable to envision a continuous substantial increase for the electricity production that is served to the grid, in order to enhance the equity IRR upwards.

Outcome of Step 2: The proposed project activity is unlikely to be the most financially/economically attractive as indicated in the 'Tool for Demonstration and Assessment of Additionality' (Version 07.0.0), as per Step 2c Para 10 b. The additionality of the project activity has been assessed in above section through investment analysis and it is concluded that a financially more viable alternative to the project activity would have led to higher emissions.

It is seen that project is not the most attractive option. Therefore, the project is considered as additional to the baseline scenario. In conclusion, Re Carbon confirms that this project activity is financially unattractive even after considering the possible fluctuation of the main parameters, and the above analysis is appropriate and in line with paragraph 96-102 of Validation and Verification Standard for project activities, version 03.

4.7.4. Barrier analysis

No barrier analysis is used for additionality justification.

4.7.5. Common practice analysis

The Methodological tool "Common Practice", Version 03.1 has been applied.

For the common practice analysis, the geographical boundary is selected as the Turkish Electricity Grid to be in line with the methodology.

Following steps were followed in line with the tool:

Step 1: Calculate applicable output range as +/-50% of the design output or capacity of the proposed project activity.

Since the installed capacity of project is 6.004 MW, the total capacity of biogas power plants, which were included in the analysis were between 3.002 MW – 9.006 MW.

Step 2: In the applicable geographical area, identify all plants that deliver the same output or capacity, within the applicable output range calculated in Step 1, as the proposed project activity and have started commercial operation before the start date of the project. Note their number Nall. Registered CDM project activities and projects activities undergoing validation shall not be included in this step.

As per the “2022 Nihai Yek Listesi”, of all the operational biomass-based power plants, based on 2022 data, only 52 of which only 5 are within the indicated applicable range of which further 4 projects are excluded as they are VER projects.

In terms of conditions Step-2 (c), these 5 companies have the same technology with Meram biogas project since they also use manure for biogas and electricity generation. Moreover, all these 5 projects comply with condition Step-2 (f).

The project details are as follows:

No	Name of plant	Capacity(MWe)
1	RESPECT BIYOGAZ	4.6
2	Kumrular Biyogaz Santrali (Registered with the Dutch Chamber of Commerce (Kamer van Koophandel) under number 62418033)	4.268
3	Ahi Suluova Biyogaz Tesisleri (GS5882)	6.637
4	Tire Biyogaz Elektrik Santrali (GS4817)	4.80
5	Toros Gönen Biyogaz Tesisi (GS1160)	3.62

All power plants that have same capacity, within the applicable range has been listed in a separately submitted spreadsheet. Properties of the power plants are also indicated in this excel sheet. The same could be validated based on the indicated sources. After excluding the VER projects, the list has only one project remaining which is RESPECT BIYOGAZ. The common practice sheet has been re-worked by the validation team; compared with other registered projects and found to be correct.

Nall = 1

Step 3: Within plants identified in Step 3, identify those that apply technologies different that the technology applied in the proposed project activity. Note their number Ndiff.

Since there is no remaining project with a different scale and different technology than the project plant.

Ndiff = 0

Step 4: Calculate factor $F=1-Ndiff/Nall$ representing the share of plants using technology similar to the technology used in the proposed project activity in all plants that deliver the same output or capacity as the proposed project activity

$F= 1- 0/1 = 1$

$Nall - Ndiff = 1 - 0 = 1$

According to the Methodological tool on Common Practice, if the factor F is greater than 0.2 and $Nall-Ndiff$ is greater than 3, then the proposed project is a “common practice”.

For the proposed project, F is more than 0.2, but $Nall - Ndiff$ is just 1, therefore, the proposed project is not common practice within the region.

Re Carbon could validate the conclusion of the PP that the project activity is not a common practice in Turkey.

In summary, it is clearly demonstrated that the project is not a likely baseline scenario, and the emission reductions are additional to what would have happened in absence of the project activity.

4.8. Monitoring

The monitoring parameters are in line with the applied methodology and include the following:

- * $EG_{d,y}$: Electricity generated using biogas in year y (MWh)
- * $B_{0,LT}$: Maximum methane producing potential of the volatile solid generated by animal type LT (m^3CH_4/kg_{dm})
- * T: Annual Average ambient temperature at project site (Celcius)
- * MCF_j : Methane conversion factor
- * Air Quality: Reduction of SO₂ and NO_x emissions due to implementation of project activity that would otherwise be emitted by thermal power plants (tons)
- * V_f : Biogas (total biogas goes to gas engines) (m^3)
- * $F_{RG,m}$: the flow rate of the residual gas to the flare (m^3)
- * Status of biogas destruction device: Operational status of biogas destruction devices
- * $V_{i,t,db}$: Volumetric fraction of greenhouse gas i in a time interval t on a dry basis (m^3 gas i/ m^3 dry gas)
- * $SPEC_{flare}$: Manufacturer's flare specifications for temperature, flow rate and maintenance schedule (Temperature - °C ; Flow rate or heat flux - kg/h or m^3/h ; Maintenance schedule - number of days)
- * Quality of Employment: Contribution to quality of employment by ensuring that the staff is trained and certified for the required positions Training Records (including H&S) & Other Certificates required by certain professions, if necessary (number of training records)
- * $FR_{f,m}$: Total mass of freight transported in freight transportation activity f in monitoring period m (tonnes)
- * $FRf_{agricultural\ waste}$: Total mass of freight transported in freight transportation activity f in monitoring period m (tonnes)
- * NAA,LT : Daily stock of animals in the farm, discounting dead and discarded animals (number)
- * n_{dy} : Number of days treatment plant was operational in year y (number)
- * $MS\%_j$: Fraction of manure handled in system j in the project activity (%)
- * N: Total number of farms
- * Q_{dm} : Mass of manure (manure taken from animal farms to fed-up the anaerobic digesters) disposed outside project boundary (kg)
- * Other Pollutants: Proper management of waste oil

The applied methodology and tools refer these monitoring parameters. Re Carbon Ltd. has checked Data Unit, Description, Source of Data, Description of the Measurement Method,

Frequency of Monitoring, Value Applied, Monitoring Equipment, QA/QC Procedures, and Calculation Method of these parameters in the applied methodology and tools. All information for the monitoring parameters has been indicated correctly in the VCS-PD.

The monitoring plan in the PDD is as per the applied methodology “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)”, version 1.0. The emission coefficient of the grid has been fixed ex-ante and will not be updated during the renewable crediting period.

In line with the methodology, the PDD includes all the parameters, as follows: location of manure collection points, total number of farms, number of animals in the farms daily discounting dead and discarded animals, mass of manure disposed outside project boundary, fraction of manure handled, annual average ambient temperature at project site, maximum methane producing potential of the volatile solid generated by animal type LT, biogas flow, volumetric fraction of CH₄ on a dry basis, flare monitoring, amount of electricity generated using biogas, and fuel consumption due to the project activity in transporting the manure from farms to the project plant.

The amount of biogas generated will be measured using flow meters, methane content in the biogas through gas analyzer, and electricity fed into the grid by the project will be monitored continuously by redundant metering devices (one main and one back-up). The main electricity meter provides the data for the monthly invoicing to TEİAŞ.

4.9. Calculation of Emission Factor and Emission Reductions

The emission reduction calculation estimations have been presented in the PDD as per the applied methodology “The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)”, version 1.0. For the methane destruction part there is no change except for the change in global warming potential of methane as 28 from 01/01/2021 onwards. Further, the emission coefficient of the grid has been updated and the emission reduction estimates are revised. The baseline emissions from electricity generation are calculated based on the grid emission factor coefficient multiplied by the expected net electricity generation, which amounts to 42.028 GWh per annum.

For calculation of the emission factor of Turkish Grid, the latest official emission factor of Turkey published by the Ministry of Energy and Natural Resources has been referred. The document refers to calculation of the grid emission factor based on the “Tool to Calculate the Emission Factor for an Electricity System, version 07.0”.

Option A: A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) is calculated according to the procedures prescribed in the ‘Tool to calculate the emission factor for an electricity system’.

The OM is calculated as 0.7424 tCO₂/MWh.

The BM is calculated as 0.3680 tCO₂/MWh.

The combined margin emissions factor has been calculated using the default values of 0.5 and 0.5 for OM and BM respectively. The CM is calculated as 0.5552 tCO₂/MWh.

The project emissions are calculated correspondingly for physical leakage of biogas from digesters, flaring, electricity consumption and transportation of manure from farms to the site. There is no leakage emissions associated with the project. Thus, the emission reductions correspond to the baseline emissions minus the project emissions. The project is expected to result in an average emission reduction of 110,277 tCO₂/year during the first renewable crediting period.

4.10. Environmental Impacts

The biogas power plant projects in Turkey are assessed for their environmental impacts by the Ministry of Environment and Urbanization. Based on the project documents submitted by the PP, the project has received exemption from Environmental Impact Assessment with notification dated 13/12/2016.

Further the impacts, as presented in the PDD have been validated by the validation team and found appropriately described.

The project participants have carried out an analysis of the social, economic and environmental impacts following the GS4GG Safeguarding Principles and Requirements. All the safeguarding principles are stated, and all the relevant assessment questions included pertaining to the safeguarding principles.

4.11. Local Stakeholder Comments

In line with the GS requirements, the local stakeholder consultation was held on 02/08/2017 in Boruktolu Village of Konya Province, Turkey which was validated based on documentary evidences verified by the validation team. The meeting was helped the local stakeholders to understand the project activity and its advantages and disadvantages better. Comments from the stakeholders were positive. No significant issues were raised by the participants during the meeting.

Moreover, on-site interviews with the some of the local stakeholders were conducted on 22/06/2022 and there hadn't been any complaint by the interviewed local stakeholders during the interviews held.

4.12. Sampling Plan

Not applicable.

4.13. GS4GG Safeguarding Principles and Requirements

The project participants have carried out an analysis of the social, economic and environmental impacts following the GS4GG Safeguarding Principles and Requirements. All the safeguarding principles are stated, and all the relevant assessment questions included pertaining the safeguarding principles. The chosen principles are:

- Principle 7.1 – Emissions (CO₂e Emission Reductions): The project contributes to 110,277 tonnes of CO₂e reduction annually, which represent direct and quantifiable impact on climate

security. To calculate the emission reduction values, there are lot of monitoring parameters which are indicated in Section 4.8 of this report. The relevant parameters are to be monitored with the proper monitoring equipment (e.g. $EG_{d,y}$ will be monitored with the calibrated electricity meters).

- 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): To calculate SO_2 and NO_x reductions, $EG_{d,y}$ parameter will be monitored with the calibrated electricity meters.

- Principle 6.1 – Labour Rights (Contribution to quality of employment by ensuring that the staff is trained and certified for the required positions): Training records (including Health and Safety Trainings) will be monitored to demonstrate the contribution of the project activity to quality of employment.

- Principle 9.5 – Hazardous and Non-hazardous Waste (Proper management of waste oil): Handling, storage and disposal of these wastes will be done according to the Turkish regulations. Disposal records of waste oil will be provided by the PD during the verification processes.

Since the project is an animal waste management system linked biogas-based power project, it is validated based on interviews held during the on-site visit, document reviews and expertise of the audit team that based on the non-relevance of the assessment questions, no mitigation measures have been adopted, which are deemed appropriate. Employment opportunities have emerged with the coming of the project activity, and the employees are trained about health and safety issues too. The same has been validated during the discussions with the relevant local stakeholders.

Therefore, through document review and interview held during the site visit, Re Carbon Ltd. confirms that the safeguarding principles assessment has been appropriately conducted for the project activity.

5. LIST OF INDIVIDUALS INTERVIEWED

The list of individuals who were interviewed during the validation period is given in the Table 5-1 below:

Table 5-1: List of individuals interviewed

Reference Number	Means of Interview ³	Full Name	Title	Organization
I01	SV	Engin Koç	Consultant	GTE
I02	SV	Abdullah Dağdelen	HSE Chief	Toros Meram
I03	SV	Ahmet Kaşmaz	Mukhtar	Çomaklı Village
I04	SV	Fatma Çelik	Villager	Çomaklı Village
I05	SV	Sefa Çelik	Villager	Çomaklı Village

³ SV: Site visit; T: Telephone; E: E-mail

6. LIST OF DOCUMENTS REVIEWED

The list of the documents which were reviewed during the validation period is given in Table 6-1 below:

Table 6-1: List of documents reviewed

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D01	PDD	01	02/06/2022
D02	PDD	02	02/11/2022
D03	PDD	03	10/11/2022
D04	PDD	04	11/11/2022
D05	ER Calculation Spreadsheet	01	02/06/2022
D06	ER Calculation Spreadsheet	02	02/11/2022
D07	ER Calculation Spreadsheet	03	10/11/2022
D08	Common Practice Analysis	01	02/06/2022
D09	IRR Calculations	01	02/06/2022
		02	10/11/2022
		03	18/03/2023
D10	GS LSC Report	01	05/09/2017
		02	21/06/2018
D11	GS LSC Report Feedback	01	21/12/2017 09/07/2018
D12	ODA Declaration	-	20/06/2018
D13	Connection Agreement	-	13/05/2020
D14	Konya Provincial Directorate Confirmation about Number of Animals of the Farms	-	02/07/2018
D15	Site Delivery Protocol	-	31/05/2021
D16	Project Introduction File	-	02/06/2016
D17	EIA Positive Decision Document	-	13/12/2016
D18	Feasibility Report	-	31/05/2016
D19	Generation License	-	04/10/2018
D20	Photographic Evidences of LSC	-	-
D21	Technical Data Sheets (Flare, flow meter)	-	-
D22	Agreements with Farms	-	2021-2022
D23	Signed Letter about time of storing manure	-	01/11/2022
D24	Photographic Evidences of Lagoons	-	-
D25	Building Permission	-	13/08/2021
D26	Provisional Acceptance Protocol (Gas Engines)	-	27/11/2020

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D27	EPC Agreement	-	-
D28	Bank Loan	-	2020
D29	Construction Agreement	-	01/12/2019
D30	CDM Validation and Verification Standard for Project Activities	3.0	09/09/2021
D31	CDM Project Standard for Project Activities	3.0	09/09/2021
D32	Gold Standard for Global Goals	1.2	-
D33	The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste (ACM0010, Version 7.0)	1.0	12/2013
D34	TOOL02: Combined tool to identify the baseline scenario and demonstrate additionality	7.0	22/09/2017
D35	TOOL03: Tool to calculate project or leakage CO2 emissions from fossil fuel combustion	3.0	22/09/2017
D36	TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation	3.0	22/09/2017
D37	TOOL06: Project emissions from flaring	3.0	28/03/2019
D38	TOOL07: Tool to Calculate the Emission Factor for an Electricity System	07.0	31/08/2018
D39	Tool to determine the remaining lifetime of equipment	1.0	16/10/2009
D40	TOOL14: Project and leakage emissions from anaerobic digesters	02.0	22/09/2017
D41	IRENA - renewable power generation costs in 2020 costs	-	2021
D42	PDD	05	19/11/2022
D43	ER Calculation Spreadsheet	04	19/11/2022
D44	SDG Impact Tool	-	-
D45	PDD	06	10/03/2023
D46	PDD	07	11/04/2023
D47	PDD	08	30/05/2023
D48	IRR Calculations	04	30/05/2023
D49	PDD	09	29/08/2023
D50	IRR Calculations	05	29/08/2023
D51	Gas Engine Purchase Agreement	-	02/01/2020
D52	191107_Meram OM Yatırımı_vf	-	04/09/2019

PROJECT NUMBER: 650



Document Number	Document Name	Version	Date (dd/mm/yyyy)
D53	7 Toros Meram Biyogaz Finansal Fizibilite	-	17/11/2020

7. VALIDATION TEAM AND ITR COMPETENCE

Mrs. Fikriye Seda ATABEK holds B.Sc. degree in “Chemical Engineering” and a M.Sc. degree in “Energy Science and Technology”. She is a lead auditor and trainer for ISO 50001 and since 2004 has been working in the fields of “Management systems”, “ISO 14064” and “Energy Management in Industry”. She has been involved in more than 100 GS and VCS projects as an ITR, Team Leader, Validator and Verifier. With re-carbon, Seda is a free-lance Team Leader and ITR.

Mr. Rohit BADAYA holds a Master’s degree in “Nanotechnology” and a Bachelor’s degree in “Pulp and Paper Engineering” from the Indian Institute of Technology Roorkee (IIT Roorkee). He is also an Energy Auditor, certified by the Bureau of Energy Efficiency, Ministry of Power, Govt. of India. Rohit has more than 13 years of work experience in the area of Climate Change (CDM, GS, VCS) and has worked for various DOEs/VVBs in the past, including “TÜV Nord”, “PJRCES Inc.” and “KBS Certification Services Private Limited”, where he worked as a Team Leader, Validator/Verifier, Technical Expert, ITR, Manager (Technical & Certification) and Quality Manager. Within the context of CDM/GS/VCS, Rohit is a Technical Expert for Technical Areas TA 1.1 (Thermal energy generation from fossil fuels and biomass including thermal electricity from solar), TA 1.2 (Energy generation from renewable energy sources), TA 2.1 (Energy Distribution), TA 3.1 (Energy Demand), TA 13.1 (Waste Handling and Disposal) and TA 13.2 (Manure). Rohit has a record of accomplishment of more than 200 projects as Team Leader, Validator, Verifier, Technical Expert and Technical Reviewer. He is well versed with various local regulations related to CDM/GS/VCS projects, located in countries in Africa, Asia as well as in Turkey. With re-carbon, Rohit is a free-lance Team Leader and ITR.

Dr. Abdulkadir BEKTAŞ holds a PhD degree in “Energy Systems Engineering” and is a UNFCCC-appointed “Agriculture Expert”. With re-carbon, Abdulkadir is a free-lance Agriculture Expert.

Mr. Sandeep KANDA holds a B.Sc. degree in “Mechanical Engineering”, a M.Sc. degree in “Energy Systems Engineering” from the Indian Institute of Technology/Bombay and a Post Graduate Diploma in “Industrial Safety & Environmental Management” from the National Institute of Industrial Engineering in India. He has more than ten years of work experience with auditing and consultancy firms, seven years thereof with Designated Operational Entities under the CDM. He is experienced in working on diversified areas of energy and environmental management, including policies, Clean Development Mechanism (CDM), Corporate Sustainability Reporting (CSR) Audits, energy audits, utility audits and product development. Sandeep has audited more than 30 CDM projects as an ITR, 40 projects as a Team Leader and 7 PoAs in various capacities, covering a broad range of sectoral scopes, such as Energy industries (renewable-/non-renewable), Energy distribution, Energy demand, Manufacturing industries, Chemical industries, Transport, Metal production, Waste handling & disposal and Agriculture. With re-carbon, Sandeep is a free-lance Team Leader and ITR

Ms. Öykü YAKUPOĞLU holds a B.Sc. degree in “Environmental Engineering” from Middle East Technical University/Ankara and currently undergoes a M.Sc. program in “Chemistry”. She is experienced in ISO 14001: 2015 - Environment Management System, ISO 50001: 2018- Energy

Management System, ISO 45001: 2018 - Occupational Health and Safety, Management System, ISO 9001: 2015 - Quality Management System Internal Auditor, ISO 14001: 2015 - Environment Management System Internal Auditor and an ISO 50001: 2018-Energy Management System Internal Auditor. With re-carbon, Öykü is an internal Validator/Verifier and Team Leader Trainee.

7.1. Appointment Certificates

CERTIFICATE OF APPOINTMENT



Within the scope and in strict accordance to the appointments indicated below, the bearer may:

- Participate in assessments conducted by re-carbon Ltd.
- Take the appointed positions within and outside of an assessment team
- Bring specific expertise to assessments

This Certificate of Appointment is valid unless there are changes in the related requirements for the qualification and appointment and/or the personnel's work agreement is terminated. There is no defined validity period for this Certificate. However, The Certificate may be updated, suspended or cancelled at any time, as a result of performance assessments and/or other reasons as defined above.

This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johannes
(General Manager)

This Certificate of Appointment is given to

Mrs. Fikriye Seda Atabek

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



REGIONAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
		SS01: Energy industries	TA 121: Thermal energy generation TA 130: Renewables													
SS02: Energy distribution	TA 120: Energy distribution	06.02.2022	06.02.2022			03.02.2022	06.02.2022	06.02.2022	03.02.2022	03.02.2022	03.02.2022	06.02.2022	06.02.2022	06.02.2022	06.02.2022	06.02.2022
SS03: Energy demand	TA 120: Energy demand	03.02.2022	03.02.2022			03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022	03.02.2022
SS 12: Waste handling and disposal	TA 122: Solid waste and wastewater															
	TA 132: Manure															
SS 15: Agriculture	TA 150: Agriculture															



REGIONAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
		SS01: Energy industries	TA 121: Thermal energy generation TA 130: Renewables													
SS02: Energy distribution	TA 120: Energy distribution	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
SS03: Energy demand	TA 120: Energy demand	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
SS 12: Waste handling and disposal	TA 122: Solid waste and wastewater															
	TA 132: Manure															
SS 15: Agriculture	TA 150: Agriculture															

COUNTRY EXPERTISE:

Turkey, China

1-01-050-2-13-04-2022-1-02

CERTIFICATE OF APPOINTMENT



Within the scope and in strict accordance to the appointments indicated below, the bearer may:

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This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johanna
(General Manager)

This Certificate of Appointment is given to

Mr. Rohit Badaya

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



Gold Standard
Climate Security & Sustainable Development



SECTORIAL SCOPE	TECHNICAL AREA	Gold Standard					Verified Carbon Standard				
		VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
	TA 1.2: Renewables	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 02: Energy distribution	TA 2.1: Energy distribution	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 03: Energy demand	TA 3.1: Energy demand	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
	TA 12.2: Manure	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 15: Agriculture	TA 15.1: Agriculture										



ICR International Carbon Registry

BioCarbon Registry

SECTORIAL SCOPE	TECHNICAL AREA	GCC					ICR					BioCarbon					
		VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	
SS 01: Energy industries	TA 1.1: Thermal energy generation	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
	TA 1.2: Renewables	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS 02: Energy distribution	TA 2.1: Energy distribution	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS 03: Energy demand	TA 3.1: Energy demand	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
	TA 12.2: Manure	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS 15: Agriculture	TA 15.1: Agriculture																

COUNTRY EXPERTISE:

India and Turkey

CERTIFICATE OF APPOINTMENT



Within the scope and in strict accordance to the appointments indicated below, the bearer may:

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- Bring specific expertise to assessments

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This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johanne
(General Manager)

This Certificate of Appointment is given to

Dr. Abdulkadir Bektaş

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



Gold Standard
Climate Security & Sustainable Development



SECTORIAL SCOPE	TECHNICAL AREA	Gold Standard					Verified Carbon Standard				
		VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation										
	TA 1.2: Biowaste										
SS 02: Energy distribution	TA 2.1: Energy distribution										
SS 03: Energy demand	TA 3.1: Energy demand										
	TA 3.2: Solid waste and wastewater										
	TA 3.3: Manure										
SS 15: Agriculture	TA 15.1: Agriculture										



ICR International Carbon Registry

BioCarbon Registry

SECTORIAL SCOPE	TECHNICAL AREA	ICR					BioCarbon				
		VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation										
	TA 1.2: Biowaste										
SS 02: Energy distribution	TA 2.1: Energy distribution										
SS 03: Energy demand	TA 3.1: Energy demand										
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater										
	TA 12.2: Manure										
SS 15: Agriculture	TA 15.1: Agriculture										

COUNTRY EXPERTISE:

Austria, Czechia, Denmark, Hungary, Portugal, Türkiye

CERTIFICATE OF APPOINTMENT



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This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johannes
(General Manager)

This Certificate of Appointment is given to

Mr. Sandeep Kanda

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



Gold Standard
Climate Security & Sustainable Development



SECTORIAL SCOPE	TECHNICAL AREA	Gold Standard					Verified Carbon Standard				
		VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS01: Energy industries	TA 1.1: Thermal energy generation	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
	TA 1.2: Renewables	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS02: Energy distribution	TA 2.1: Energy distribution	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS03: Energy demand	TA 3.1: Energy demand	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
	TA 12.2: Manure	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS 15: Agriculture	TA 15.1: agriculture	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022



ICR International Carbon Registry

BioCarbon Registry

SECTORIAL SCOPE	TECHNICAL AREA	GCC					ICR					BioCarbon					
		VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	
SS01: Energy industries	TA 1.1: Thermal energy generation	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
	TA 1.2: Renewables	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS02: Energy distribution	TA 2.1: Energy distribution	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS03: Energy demand	TA 3.1: Energy demand	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
	TA 12.2: Manure	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											
SS 15: Agriculture	TA 15.1: agriculture	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022											

COUNTRY EXPERTISE:

China, India, Indonesia, Mexico, Nepal, Philippines, Tanzania, Thailand, Türkiye, Vietnam

CERTIFICATE OF APPOINTMENT



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This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johannes
(General Manager)

This Certificate of Appointment is given to

Ms. Öykü Yakupoğlu

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



Gold Standard
Climate Security & Sustainable Development



SECTORIAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
		SS 01: Energy industries	TA 1.1: Thermal energy generation TA 1.3: Renewables						30.06.2022	30.06.2022			30.06.2022	30.06.2022	30.06.2022	
SS 02: Energy distribution	TA 2.1: Energy distribution															
SS 03: Energy demand	TA 3.1: Energy demand															
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater TA 13.2: Manure															
SS 15: Agriculture	TA 15.1: Agriculture															



ICR International Carbon Registry

BioCarbon Registry

SECTORIAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
		SS 01: Energy industries	TA 1.1: Thermal energy generation TA 1.3: Renewables	01.08.2022	01.08.2022			30.06.2022								
SS 02: Energy distribution	TA 2.1: Energy distribution															
SS 03: Energy demand	TA 3.1: Energy demand															
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater TA 13.2: Manure															
SS 15: Agriculture	TA 15.1: Agriculture															

COUNTRY EXPERTISE:

Turkey

8. VALIDATION OPINION

Re Carbon Ltd. performed the validation of the “Altaca Meram Biogas Plant” in “Turkey” between 20/06/2022 and 04/01/2024. The validation was performed on the basis of UNFCCC criteria for the CDM, Gold Standard for Global Goals (GS4GG) and Host Party criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation was performed by a validation team consisting of “Sandeep Kanda as the team leader, Öykü Yakupoğlu as the trainee validator, Fikriye Seda Atabek as the trainee validator, Abdulkadir Bektaş as the TA 15.1 (ITR) expert and Rohit Badaya as the ITR” and the project activity was checked against the applicable rules and regulations of CDM including CDM Validation and Verification Standard for project activities version 3.0, CDM Project Standard for project activities version 3.0, GS4GG version 1.2.

Re Carbon Ltd. hereby confirm that the proposed project activity “Altaca Meram Biogas Plant” in Turkey, applied all relevant EB-guidance as the selected baseline and monitoring methodologies and the associated methodological tools have been applied correctly. The total emission reductions from the project are estimated to be on the average of 110,277 tCO₂e per annum over the selected 5 year crediting period. The emission reduction forecast was checked and it is deemed likely that the stated amount will be achieved, given that the underlying assumptions do not change.

As a result, the validation team assigned by Re Carbon Ltd. concludes that the proposed Project Activity “Altaca Meram Biogas Plant” in Turkey, as described in the PDD version 09, dated 29/08/2023.

- meets all relevant Host Country criteria;
- meets all relevant requirements of the GS4GG, UNFCCC for CDM project activities [including Article 12 of the Kyoto Protocol, the Modalities and Procedures for CDM (Marrakesh Accords) and the subsequent decisions and guidance by the COP/MOP and the CDM Executive Board];
- applies correctly the baseline and monitoring methodology The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (ACM0010, version 07.0)”, version 1.0;
- its additionality is sufficiently justified in the PDD;
- is likely to achieve estimated emission reductions;

Therefore, Re Carbon Ltd. requests the registration of the proposed project activity as a GS project activity.



Sandeep KANDA
Team Leader
03/01/2024



Rohit BADAYA
ITR



Abdulkadir BEKTAŞ
TA 15.1 (ITR) Expert
03/01/2024



Esin TUNALI
Certification Manager
08/01/2024

ANNEX 1: VALIDATION PROTOCOL

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question					
Cover Page-Key Project Information					
1. Has the following information been indicated in the cover page of the PDD?	GS-PDD-FORM Ver. 1.2	DR	Please refer below	Ok	Ok
1.1. GS ID of the project activity	GS-PDD-FORM Ver. 1.2	DR	Please indicate the GS ID of the project activity. The LSC review feedback form indicates GS5920.	CAR-1	Ok
1.2. Title of the project activity	GS-PDD-FORM Ver. 1.2	DR	Please clarify the change in project title indicated as ‘The Meram Biogas and Organic Fertilizer Plant’ in the Local Stakeholder Consultation Report Feedback under GS Version 2.2 VER, whereas the PDD states ‘Meram Biogas Power Plant’	CAR-2	Ok
1.3. Time of first submission date	GS-PDD-FORM Ver. 1.2	DR	Please indicate the first submission date in dd/mm/yyyy format.	CAR-3	Ok
1.4. Date of design certification	GS-PDD-FORM Ver. 1.2	DR	n/a	Ok	Ok
1.5. Version number of the PDD	GS-PDD-FORM Ver. 1.2	DR	Version indicated in the first submission is 01	Ok	Ok
1.6. Completion date of version	GS-PDD-FORM Ver. 1.2	DR	Completion date indicated in the first submission as 02/06/2022.	Ok	Ok
1.7. Project developer	GS-PDD-FORM Ver. 1.2	DR	GTE KARBON SUSTAINABLE ENERJİ EĞİTİM DANISMANLIK VE TİCARET A.Ş.	Ok	Ok
1.8. Project representative	GS-PDD-FORM Ver. 1.2	DR	TOROS MERAM YENİLENEBİLİR ENERJİ ÜRETİM A.Ş.	Ok	Ok
1.9. Project participants and any communities involved	GS-PDD-	DR	-	Ok	Ok

*DR= Document Review, I= Interview, SV= Site Visit

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
		FORM Ver. 1.2				
1.10.	Host country (ies)	GS-PDD-FORM Ver. 1.2	DR	Turkey	Ok	Ok
1.11.	Activity requirements applied	GS-PDD-FORM Ver. 1.2	DR	Renewable Energy Activities	Ok	Ok
1.12.	Scale of the project activity	GS-PDD-FORM Ver. 1.2	DR	Large scale	Ok	Ok
1.13.	Other requirements applied	GS-PDD-FORM Ver. 1.2	DR	n/a	Ok	Ok
1.14.	Methodology (ies) applied and version number	GS-PDD-FORM Ver. 1.2	DR	ACM0010: “GHG emission reductions from manure management systems--Version 08.0”	Ok	Ok
1.15.	Product requirements applied	GS-PDD-FORM Ver. 1.2	DR	GHG Emissions Reduction & Sequestration has been checked.	Ok	Ok
1.16.	Project cycle	GS-PDD-FORM Ver. 1.2	DR	Please clarify the basis of indicating the project cycle as ‘Regular’. Further, it is noted that the project has had its LSC review done by GS under 2.2 Dec 2019, however, the validation has not been completed within 2 years from listing.	CAR-4	Ok
2.	Has the estimated sustainable development contributions of the project activity been provided in the relevant tabular format?	GS-PDD-FORM Ver. 1.2	DR	Contributions to SDG7, SDG8, SDG12 and SDG13 is indicated in the tabular format. However, reduction of SO2 and NOx under SDG 13 are to be clarified and also no estimates under SDG 8 have been cited.	CAR-5	Ok
A. Description of Project						
A.1. Purpose and general description of project						

*DR= Document Review, I= Interview, SV= Site Visit

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
<p>A.1.1. Is the scenario existing prior to the implementation of the project activity including, where applicable, the type of facility where the project activity will take place or replace, described in the PDD?</p>	<p>GS-PDD-FORM Ver. 1.2</p>	<p>DR</p>	<p>The project is indicated as using biogas generated from cattle manure, chicken manure and agricultural wastes -via anaerobic digestion for power generation through gas engines. It is indicated that the project activity reduces GHG emissions released from the anaerobic decay of organic waste.</p> <p>Please indicate the scenario existing prior to the implementation of the project activity about the referred organic wastes such as chicken manure and agricultural wastes collected from neighbouring waste sources and electricity export to grid too.</p> <p>Further, the quantum of waste being treated is also to be indicated.</p> <p>Furthermore, elaborate what BPP stands for prior to abbreviating.</p>	<p>CAR-6</p>	<p>Ok</p>
<p>A.1.2. Is the baseline scenario described as identified in section B4 of the PDD?</p>	<p>GS-PDD-FORM Ver. 1.2</p>	<p>DR</p>	<p>It is indicated that in the baseline scenario manure from the farms were being left to decay in anaerobic lagoons or spread over the fields. Please clarify further on the same.</p> <p>Furthermore, baseline scenario for other waste types is not clarified. Please indicate the baseline scenario about the referred organic wastes such as chicken manure and agricultural wastes and electricity export to grid too.</p>	<p>CAR-7</p>	<p>Ok</p>
<p>A.1.3. Has the PPs provided an estimation of annual average and total GHG emission reductions for the chosen crediting period?</p>	<p>GS-PDD-FORM Ver. 1.2</p>	<p>DR</p>	<p>The project’s estimated amount of CO2 reduction per annum and total GHG emission reductions for the chosen crediting period are to be indicated.</p> <p>Please also include the digester and other civil works in the milestone table too.</p>	<p>CAR-8</p>	<p>Ok</p>
<p>A.1.4. Is the purpose of the project activity described including how it contributes to the sustainable development of the Host Party?</p>	<p>GS-PDD-FORM Ver. 1.2 EB 101</p>	<p>DR</p>	<p>Please indicate briefly as to how the project contributes to the sustainable development of the Host Party.</p> <p>Please submit the LSC meeting dated 19/01/2016, EIA</p>	<p>CAR-9, CL-1</p>	<p>Ok</p>

*DR= Document Review, I= Interview, SV= Site Visit

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation RequirementsQuestion	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	Report Annex 1 §36c		approval dated 13/12/2016 among other documents including the GS review documents.		
A.1.1. Eligibility of the project under Gold Standard					
A.1.1.1. Is it described how the project meets the eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements documents and the relevant activity requirements document?	GS-PDD-FORM Ver. 1.2	DR	<p>Yes, the eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements is described and the project meets such criteria.</p> <p>Please clarify and correct the statement in section A.1.1 of the PDD wherein it is indicated that, ‘...the proposed Project is designed to generate renewable energy, mainly electricity by using municipal solid waste...’. Also, the reference to GS4GG version 1.1 is to be updated.</p> <p>Further, the applied methodology too is inconsistently cited, whereas earlier ACM0010 is indicated, in the section A.1.1 ‘The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste’ is cited. Also, there is repeat text in the section too.</p>	CAR-10	Ok
A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project					
A.1.2.1. Is it justified that the project owner has full and uncontested legal ownership of the products that are generated under Gold Standard Certification and has legal rights concerning changes in use of resources required to service the Project for e.g	GS-PDD-FORM Ver. 1.2	DR	<p>It is indicated that all legal rights of the Meram Biogas Power Plant were given to Toros Meram Yenilenebilir Enerji Üretim A.Ş. as per the generation license given by EMRA (Energy Market Regulatory Authority) on 04/10/2018.</p> <p>Please submit the electricity generation licence issued.</p>	CL-2	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question water rights, where applicable?					
A.2. Location of the project activity					
A.2.1. Is the location of the project activity clearly identified including:	GS-PDD-FORM Ver. 1.2				
A.2.1.1. Host Party(ies)?	GS-PDD-FORM Ver. 1.2	DR, SV	Turkey	Ok	Ok
A.2.1.2. Region/State/Province etc.	GS-PDD-FORM Ver. 1.2	DR, SV	Konya Province	Ok	Ok
A.2.1.3. City/Town/Community etc.	GS-PDD-FORM Ver. 1.2	DR, SV	Meram District	Ok	Ok
A.2.1.4. Street name and number	GS-PDD-FORM Ver. 1.2	DR, SV	Please indicate further details about the project location.	CAR-11	Ok
A.2.1.5. A map	GS-PDD-FORM Ver. 1.2	DR	The map of the project areas is provided.	Ok	Ok
A.2.1.6. Details of physical location, including information allowing the unique identification of the project activity (e.g. geographic coordinates).	GS-PDD-FORM Ver. 1.2	DR	Please clarify and correct the stated coordinates of the project area as the same could not be confirmed with the EPDK licence.	CAR-12	Ok
A.3. Technologies and/or measures					
A.3.1. Does PDD include the accurate and complete description of the proposed project activity and	EB 101	DR	The details about the technology being implemented as	CAR-13	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
provide an understanding of the proposed GS project activity?	Report Annex 1 §35		part of the project including the technical description of the key equipment is to be provided. Please clarify about the anaerobic digestors too and provide the corresponding supporting documents for the equipment too. Further, inconsistent value of installed capacity is cited in section A.3.		
A.3.2. Is the proposed GS project activity in existing facilities or utilizing existing equipment?	EB 101 Report Annex 2 §51	DR	Please confirm that the project activity is a greenfield project, however, is also utilizing waste from other existing farms too.	CAR-14	Ok
A.3.3. Does the proposed GS project activity involve the alteration of an existing installation or process?	EB 101 Report Annex 2 §51	DR	Please clarify on the process of waste management for chicken manure and agricultural wastes existing prior to the project activity. Also, indicate the quantity of respective waste type that would likely be treated at the facility.	CAR-15	Ok
A.3.4. If the proposed GS project activity is the alteration of an existing installation or process, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	EB 101 Report Annex 2 §51	DR	Refer to CAR above	CAR-13-15	Ok
A.3.5. Have the technologies and measures to be employed and/or implemented by the project activity been described including a list of facilities, systems and equipment that will be installed and/or modified by the project activity?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-13-15	Ok
A.3.6. Has the PP provided a list of facilities, systems and equipment in operation under the existing scenario prior to the implementation of the project activity?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-14-15	Ok
A.3.7. Has the PP provided a list of facilities, systems and equipment in the baseline scenario, as established in section B.4 of the PDD?	GS-PDD-FORM Ver. 1.2	DR	Please provide the list of facilities, systems and equipment in the baseline scenario, as subsequently established in section B.4 of the PDD.	CAR-16	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
A.3.8. Does the description clearly explain how the same types and levels of services provided by the project activity would have been provided in the baseline scenario?	GS-PDD-FORM Ver. 1.2 EB 101 Report Annex 1 §60	DR	Please clearly explain how the same types and levels of services provided by the project activity would have been provided in the baseline scenario.	CAR-17	Ok
A.3.9. Has the PPs included information about the age and average lifetime of the equipment based on manufacturer’s specifications and industry standards, and existing and forecast installed capacities, load factors and efficiencies, under section A.3 of the PDD?	GS-PDD-FORM Ver. 1.2 EB 101 Report Annex 1 §36e-iv	DR	Please include information about the age and average lifetime of the equipment based on manufacturer’s specifications and industry standards, and existing and forecast installed capacities, load factors and efficiencies.	CAR-18	Ok
A.3.10. Is the information provided as to how the project contributes positively to three SDGs?	GS-PDD-FORM Ver. 1.2	DR	Please indicate as to how the project contributes towards SDG 7, SDG 8, SDG 12 and SDG 13.	CAR-19	Ok
A.3.11. Has the energy and mass flows and balances of the systems and equipment included in the project activity, been given?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-16-19	Ok
A.3.12. Has the types and levels of services (normally in terms of mass or energy flows) provided by the systems and equipment that are being modified and/or installed under the project activity and their relation, if any, to other manufacturing/production equipment and systems outside the project boundary, been given?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-16-19	Ok
A.3.13. Has the PPs described the technology to be	EB 101	DR	Yes	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question employed by the project activity to enable the identification of the following:	Report Annex 1 §36				
A.3.13.1. Project’s title	EB 101 Report Annex 1 §36a	DR	Yes	Ok	Ok
A.3.13.2. Project’s sectoral scope	EB 101 Report Annex 1 §36b	DR	Yes	Ok	Ok
A.3.13.3. Know-how to be used are transferred to the host Party(ies)	EB 101 Report Annex 1 §36e	DR	Yes	Ok	Ok
A.4. Scale of the project					
A.4.1. Has the scale of the project defined (micro scale, small scale or others)?	GS-PDD-FORM Ver. 1.2	DR	Large scale	Ok	Ok
A.4.2. Is the justification for the scale of the project provided referring to relevant activity requirement?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
					Ok
A.5. Funding source of project					
A.5.1. Is the source of public and private funding sources for the project provided?	GS-PDD-FORM Ver. 1.2	DR	It is indicated that no public funding is used for the project activity. Please submit the documentary evidence for the project funding.	CL-3	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
A.5.2. If the project activity receives public funding, has the PP provided information on Parties providing the public funding?	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
A.5.3. If the project activity receives public funding, has the PP attached in Appendix 2 of the PDD an affirmation obtained from Parties included in Appendix 1 that such funding does not result in a diversion of Official Development Assistance (ODA), is separate from, and is not counted towards the financial obligations of those Parties?	GS-PDD-FORM Ver. 1.2 EB 101 Report Annex 1 §38	DR	N/A	Ok	Ok
B. Application of Approved Gold Standard Methodology (ies) and/or Demonstration of SDG Contributions					
B.1. Reference of approved methodology(ies)					
B.1.1. Are the references including the number, title, and the version of the selected methodology(ies) given in the PDD?	GS-PDD-FORM Ver. 1.2	DR	ACM0010: “GHG emission reductions from manure management systems--Version 08.0 has been referenced.	Ok	Ok
B.1.2. Are the references including the number, title, and the version of any tools and other methodologies to which the selected methodology(ies) refer given in the PDD?	GS-PDD-FORM Ver. 1.2 EB 101 Report Annex 1 §54	DR	Please indicate only the relevant and applied tools. The reference to the tool ‘Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period’ is inappropriate too. Further, reference to the underlying methodology consolidated to form ACM0010 is not required to be stated.	CAR-20	Ok
B.2. Applicability of methodology(ies)					
B.2.1. Has the PPs justified the choice of the selected methodology(ies), if applicable, by	GS-PDD-FORM Ver. 1.2	DR	Yes, the applicability conditions as per the methodology along with the justification is stated. However, the	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question showing that the project activity meets each applicability condition of the methodology(ies)?	EB 101 Report Annex 1 §54 EB 101 Report Annex 2 §67		justification provided is insufficient / incomplete. Refer to CAR, CL below.		
B.2.2. Does the project activity meet each of the applicability conditions of the tools or other methodology components referred to in the applied methodology?	EB 101 Report Annex 2 §67	DR	Refer to CAR, CL below	CAR, CL	Ok
B.2.3. Has the PPs explained the documentation that has been used and provided the references to applicability of methodology?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR, CL below	CAR, CL	Ok
ACM0010					
B.2.4. Does the proposed project activity involve the following?	ACM0010 version 8.0	DR	Refer to CAR below	CAR, CL	Ok
B.2.4.1. Manure management on one or multiple livestock farms where the existing anaerobic manure treatment system, within the project boundary, is replaced by one or a combination of more than one animal waste management systems (AWMSs) that result in less GHG emissions compared to the existing system	ACM0010 version 8.0	DR	It is indicated that <i>“The project activity aims to replace the existing anaerobic treatment systems (solid storage for manure collection followed by uncovered anaerobic lagoon for manure management) in the poultry or cattle farms by a single AWMS. This shall result in lesser GHG emissions by avoidance of methane release from the lagoons.”</i> The associated supporting documentary evidence are to be provided.	CL-4	Ok
B.2.5. Does the proposed project activity involve manure management project under the following conditions? In addition	ACM0010 version 8.0	DR	Refer to CAR, CL below	CAR, CL	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.2.5.1. Farms where livestock populations, comprising of cattle, buffalo, swine, sheep, goats, and/or poultry, is managed under confined conditions;	ACM0010 version 8.0	DR	It has been indicated that <i>'The farms in the project boundary contain poultry and cattle populations housed in cages, i.e., in confined conditions. This is confirmed in site visit'</i> . The management of livestock populations are to follow Turkish Law and Regulations with the section "Regulation of Establishment, Execution and Supervision of Livestock Facilities". Please provide documentary evidence that the farms are in compliance with the regulations and also submit the agreement(s) with the farms and Toros.	CL-5	Ok
B.2.5.2. Farms where manure is not discharged into natural water resources (e.g. rivers or estuaries);	ACM0010 version 8.0	DR	Please provide documentary evidence to confirm that manure is not discharged into natural water resources from the farms.	CL-6	Ok
B.2.5.3. In case of anaerobic lagoons treatments systems, the depth of the lagoons used for manure management under the baseline scenario should be at least 1 meter;	ACM0010 version 8.0	DR	Please provide documentary evidence to confirm that in the baseline scenario cattle manure generated at farms is stored generally in tanks in anaerobic conditions. Tanks' depths, when applicable, are more than 1 m.	CL-7	Ok
B.2.5.4. The annual average ambient temperature at the site where the anaerobic manure treatment facility in the baseline existed is higher than 5°C;	ACM0010 version 8.0	DR	It is indicated that <i>'The average ambient temperature in the Eskişehir Province is reported to be 11.3°C by the state meteorology department'</i> . The evidence is to be submitted and the temperature is reported inconsistently in the ER sheet. Further the corresponding IPCC value for MCF is not conservatively applied. Furthermore, the location too refers to Eskişehir Province rather than Konya.	CAR-21	Ok
B.2.5.5. In the baseline case, the minimum retention time of manure waste in the anaerobic treatment system is greater than 1 month;	ACM0010 version 8.0	DR	Please provide documentary evidence to confirm that in the baseline scenario the retention time of manure waste is greater than one month in the baseline scenario.	CL-8	Ok
B.2.5.6. The AWMS(s) in the project case results in no leakage of manure waste into ground water, e.g. the lagoon	ACM0010 version 8.0	DR	Please provide documentary evidence to confirm that in the project case there is no leakage of manure waste into ground water, e.g. the lagoon should have a non-	CL-9	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
should have a non-permeable layer at the lagoon bottom;			permeable layer at the lagoon bottom		
B.3. Project boundary					
B.3.1. Has the PP described the emission sources and GHGs included in the project boundary for the purpose of calculating project emissions and baseline emissions, in the tabular format?	GS-PDD-FORM Ver. 1.2	DR	The table for Emissions sources included in or excluded from the project boundary is not presented following the applied methodology. Further the inclusion/exclusion of the gases too are stated incorrectly along with the justification.	CAR-22	Ok
B.3.2. Has the PP presented a flow diagram of the project boundary, physically delineating the project activity, based on the description provided in section A.3 of the PDD?	GS-PDD-FORM Ver. 1.2	DR	Please present a flow diagram of the project boundary, physically delineating the project activity.	CAR-23	Ok
B.3.3. Has the PP included in the flow diagram the equipment, systems and flows of mass and energy described in section A.3 of the PDD, and indicated in the diagram the emission sources and GHGs included in the project boundary and the data and parameters to be monitored?	GS-PDD-FORM Ver. 1.2	DR	Please include a flow diagram also depicting the equipment, systems and the emission sources and GHGs included in the project boundary and the data and parameters to be monitored.	CAR-24	Ok
B.3.4. Does the selected methodology allow the PPs to choose whether a source or gas is to be included in the project boundary?	EB 101 Report Annex 1 §58	DR	Refer to CAR above	CAR-22	Ok
B.3.5. If the selected methodology allows the project participants to choose whether a source or gas is to be included in the project boundary, do the project participants explain and justify their choices?	EB 101 Report Annex 1 §58	DR	Refer to CAR above	CAR-22	Ok
B.3.6. Have all sources and GHGs necessary for the calculation of emissions been included within the project boundary?	EB 101 Report Annex 2 §69	DR	Refer to CAR above	CAR-22	Ok
B.3.7. Does the PDD correctly describe the project	EB 101	DR	Refer to CAR above	CAR-22	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
boundary and the physical delineation of the proposed project activity?	Report Annex 1 §57				
B.3.8. Has the selected methodology been correctly applied with respect to project boundary?	EB 101 Report Annex 2 §63a	DR	Refer to CAR above	CAR-22	Ok
ACM0010					
B.3.9. Does the spatial extent of the project boundary include the following as applicable?	ACM0010 version 8.0				
B.3.9.1. The site of the AWMS(s) ,	ACM0010 version 8.0	DR	Refer to CAR above	CAR-23	Ok
B.3.9.2. Treatment facility and/ or central treatment facility including the storage tanks (if applicable)	ACM0010 version 8.0	DR	Refer to CAR above	CAR-23	Ok
B.3.9.3. The site where the residual waste from biological treatment or products from those treatments, like slurry, are handled, disposed, submitted to soil application, or treated thermally/mechanically	ACM0010 version 8.0	DR	Refer to CAR above	CAR-23	Ok
B.3.9.4. Onsite flare or energy and/or heat generation equipment and the power/heat source	ACM0010 version 8.0	DR	Refer to CAR above	CAR-23	Ok
B.3.9.5. The road itineraries and/or piping system between the manure collection points	ACM0010 version 8.0	DR	Please provide the documentary evidence for the designated farms and facilities wherefrom the organic waste is collected, also confirming the road itineraries.	CAR-25	Ok
B.3.9.6. Waste transportation,	ACM0010 version 8.0	DR	Refer to CAR above	CAR-25	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.3.10. Are the emissions sources included in or excluded from the project boundary indicated in the PDD in line with the Table-2 of the methodology?	ACM0010 version 8.0	DR	Refer to CAR above	CAR-22	Ok
B.3.11. Has the clear diagrammatic representation of the project scenario been provided by PP showing the following?	ACM0010 version 8.0	DR	Please provide a clear diagrammatic representation of the project scenario including the waste treatment steps as well as final disposal; use of methane and also the auxiliary energy to run the project treatment steps; and the fraction of volatile solids degraded within the project boundary in the pre-project situation before disposal.	CAR-26	Ok
B.3.11.1.All the manure waste treatments steps as well as its final disposal	ACM0010 version 8.0	DR	Please provide documentary evidence to confirm that manure is not stored more than 24 hours.	CL-10	Ok
B.3.11.2.The final use of methane, if any is captured, and also the auxiliary energy used to run project treatments steps	ACM0010 version 8.0	DR	Refer to CAR above	CAR-26	Ok
B.3.11.3.The fraction of volatile solids degraded within the project boundary in the pre-project situation before disposal.	ACM0010 version 8.0	DR	Refer to CAR above	CAR-26	Ok
B.3.12. Has the precise location of the farm(s) been identified by PP including the following?	ACM0010 version 8.0	DR	Please also include the co-ordinates of the farms wherefrom the organic waste is being sourced.	CAR-27	Ok
B.3.12.1.Co-ordinates of farm(s) using global positioning system	ACM0010 version 8.0	DR	Refer to CAR above	CAR-27	Ok
B.3.12.2.The road distances of the itineraries between them and the manure central treatment plant using information from official sources	ACM0010 version 8.0	DR	Please provide the road distances of the itineraries between the farms from which waste is sourced and the manure central treatment plant using information from official sources.	CAR-28	Ok
B.4. Establishment and description of the baseline scenario					
B.4.1. Does the approved methodology that is	EB 101	DR	No	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
<ul style="list-style-type: none"> selected by the proposed GS project prescribe the baseline scenario and hence no further analysis is required? 	Report Annex 2 §94 EB 101 Report Annex 1 §59				
B.4.2. Does the PDD identify the baseline for the proposed GS project, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed GS project?	EB 101 Report Annex 2 §75 EB 101 Report Annex 1 §61	DR	As per the applied methodology, the baseline scenario and demonstration of additionality is to be performed using the “Combined tool to identify the baseline scenario and demonstrate additionality”. As per the applied methodology, baseline scenario should be identified from the perspective of the owner of waste treatment plant, as well as from the perspective of the multiple livestock farms owners. Please clarify and correct the presentation in section B.4 of the PDD accordingly with reference to existing facilities or greenfield facilities.	CAR-29	Ok
B.4.3. If the methodology requires use of the tools to identify the baseline scenario, have all those been applied?	EB 101 Report Annex 2 §77	DR	Refer to CAR above	CAR-29	Ok
B.4.4. Are there relevant national and/or sectoral policies to identify the baseline scenario?	EB 101 Report Annex 2 §81 EB 101 Report Annex 1 §64	DR	The relevant national and sectoral policies are to be referred to identify the baseline scenario.	CAR-30	Ok
B.4.5. If there are relevant national and/or sectoral policies to identify the baseline scenario, have those been considered correctly in the PDD?	EB 101 Report Annex 2 §83d	DR	Refer to CAR above	CAR-30	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.4.6. Are there relevant circumstances to identify the baseline scenario?	EB 101 Report Annex 2 §81	DR	Refer to CAR above	CAR-30	Ok
B.4.7. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	EB 101 Report Annex 2 §78	DR	Yes	Ok	Ok
B.4.8. If the methodology requires several alternative scenarios to be considered in the identification of the most reasonable baseline scenario, are all credible scenarios that are in the PDD and are supplementary to those required by the methodology reasonable in the context of the proposed GS project?	EB 101 Report Annex 2 §78	DR	The scenarios to be presented taking into account the existing and greenfield facility are not presented in accordance with the methodology.	CAR-31	Ok
B.4.9. If the proposed project activity includes several different facilities, technologies, outputs or services, do the alternative scenarios for each of them be identified separately?	EB70 Report Annex 8	DR	Refer to CAR above	CAR-31	Ok
B.4.10. If the alternative scenarios for each of them be identified separately, are the realistic combinations of these be considered as possible alternative scenarios to the proposed project activity?	EB70 Report Annex 8	DR	Refer to CAR above	CAR-31	Ok
B.4.11. Does the list of alternative scenarios given in the PDD include the following?	EB 101 Report Annex 2 §93	DR	Refer to CAR above	CAR-31	Ok
B.4.11.1. The project activity is undertaken without being registered as a GS project	EB 101 Report Annex 2	DR	Refer to CAR above	CAR-31	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	§93a				
B.4.11.2.All plausible alternatives	EB 101 Report Annex 2 §93b	DR	Refer to CAR above	CAR-31	Ok
B.4.11.3.Comply with all applicable and enforced legislation	EB 101 Report Annex 2 §93c	DR	Refer to CAR above	CAR-31	Ok
B.4.12. Has the PP explained how the baseline scenario is established in accordance with the selected methodology(ies)?	GS-PDD-FORM Ver. 1.2 EB 101 Report Annex 1 §59	DR	Refer to CAR above	CAR-31	Ok
B.4.13. Where the procedure in the selected methodology(ies) involves several steps, has the PPs described how each step is applied and transparently documented the outcome of each step?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-31	Ok
B.4.14. Has the PP provided and explained all data used to establish the baseline scenario (variables, parameters, data sources, etc.)?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-31	Ok
B.4.15. Is the identified baseline scenario reasonably supported by correct and verifiable references, assumptions, calculations and rationales?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-31	Ok
B.4.16. Has a transparent description of the baseline scenario been provided including the technology(ies) that would be employed and/or the activities that would take place in	GS-PDD-FORM Ver. 1.2 EB 101	DR	Refer to CAR above	CAR-31	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
the absence of the project activity?	Report Annex 2 §80				
B.4.17. Has the selected methodology been correctly applied with respect to baseline identification?	EB 101 Report Annex 2 §63b	DR	Refer to CAR above	CAR-31	Ok
ACM0010					
B.4.18. In case of project with managing the manure in the existing facilities, have the complete set of existing/possible manure management systems listed in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Volume 4, Chapter 10, Table 10.17) been taken into consideration by PP?	ACM0010 version 8.0	DR	The PDD presents the case of managing the manure in the existing facilities, with the complete set of existing/possible manure management systems listed in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Volume 4, Chapter 10, Table 10.17).	OK	Ok
B.4.19. In case of project with managing the manure in the greenfield facilities, has the baseline scenario been determined as an uncovered anaerobic lagoon?	ACM0010 version 8.0	DR	Refer to CAR above	CAR-31	Ok
B.4.20. If the baseline scenario has been determined as an uncovered anaerobic lagoon, have the several anaerobic lagoon design options for the particular manure stream that meet the relevant regulations and take into consideration local conditions (e.g. environmental legislation, ground water table, land requirement, temperature) been defined?	ACM0010 version 8.0	DR	Please provide documentary evidence for the following: - the common practice for the farms and facilities is uncovered anaerobic lagoons/ponds; - the lagoon systems of common practice and lagoons depth; and - the retention time of the manure in the stated lagoon systems above is greater than 1 month long.	CL-11	Ok
B.4.21. If the baseline scenario has been determined as an uncovered anaerobic lagoon, do the design specifications include	ACM0010 version 8.0	DR	Refer to CL above	CL-11	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
average depth and surface area of the anaerobic lagoon, residence time of the organic matter, as well as any other key parameters?					
B.4.22. In case of project with managing the manure for electricity generation, has the following baseline alternatives been considered by PP?	ACM0010 version 8.0	DR	The alternatives for electricity and heat are presented in accordance with the methodology in the PDD. In addition to the alternative baseline scenarios to be identified for managing the manure, alternative scenarios for the use of gas generated from an anaerobic digester (biogas) shall also be identified if this is an aspect of the project activity.	CAR-32	Ok
B.4.22.1.Electricity generation from biogas, undertaken without being registered as GS project activity;	ACM0010 version 8.0	DR	Yes	Ok	Ok
B.4.22.2.Electricity generation in existing or new renewable based captive power plant(s);	ACM0010 version 8.0	DR	Yes	Ok	Ok
B.4.22.3.Electricity generation in existing and/or new grid-connected power plant;	ACM0010 version 8.0	DR	Yes	Ok	Ok
B.4.22.4.Electricity generation in an off-grid fossil fuel fired captive power plant;	ACM0010 version 8.0	DR	Yes	Ok	Ok
B.4.22.5.Electricity generation in existing and/or new grid-connected power plant and fossil fuel fired captive power plant(s).	ACM0010 version 8.0	DR	Yes	Ok	Ok
B.4.23. In case of project with managing the manure for heat generation, has the following baseline alternatives been considered by PP?	ACM0010 version 8.0	DR	The alternatives for heat are stated. Further, it is also indicated that <i>'Even though the heat generated in the cogeneration unit will be used within the facility itself, replacing the natural gas combusted in the baseline scenario, the project does not accrue emission reduction credits from the heat component'</i> . The PDD is inconsistent with the ER sheet wherein	CAR-33	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation RequirementsQuestion	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
			emission reductions from heat are considered and also that the heat part appears to be more of an auxiliary consumption as part of the project activity.		
B.4.23.1.Heat generation from biogas undertaken without being registered as GS project activity;	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.4.23.2.Heat generation in existing or new fossil fuel fired cogeneration plant(s);	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.4.23.3.Heat generation in existing or new renewable based cogeneration plant(s);	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.4.23.4.Heat generation in existing or new on-site or off-site fossil fuel based boiler(s) or air heater(s);	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.4.23.5.Heat generation in existing or new on-site or off-site renewable energy based boiler(s) or air heater(s);	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.4.23.6.Any other source, such as district heat; and	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.4.23.7.Other heat generation technologies (e.g. heat pumps or solar energy).	ACM0010 version 8.0	DR	Refer to CAR above	CAR-33	Ok
B.5. Demonstration of additionality					
<p>B.5.1. Has it been clearly stated in the PDD which analysis method(s) has been chosen for additionality assessment?</p> <ul style="list-style-type: none"> • 	GS-PDD-FORM Ver. 1.2 EB70 Report Annex 8	DR	Demonstration of additionality is carried as per the methodological tool: “Combined tool to identify the baseline scenario and demonstrate additionality”, Version 07.0	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.5.1. Prior consideration of CDM					
B.5.1.1. In case of retroactive projects and all projects undergoing Design Changes to include new technologies/measures, has the prior consideration been demonstrated by submission timeline?	GS-PDD-FORM Ver. 1.2	DR	The section indicates that the project is not retroactive and design change reviews were already finalized. Please clarify and correct accordingly.	CAR-34	Ok
B.5.1.2. In case of retroactive projects, has the time of first submission is within one year of the project start date?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR-34	Ok
B.5.1.3. In case of projects undergoing design changes, has the request for design change approval is within one year design change start date?	GS-PDD-FORM Ver. 1.2	DR	n/a	Ok	Ok
B.5.1.4. Is the start date of the proposed project activity prior to the date of publication of the PDD for the global stakeholder consultation?	EB 101 Report Annex 1 §31	DR	n/a	Ok	Ok
Sub-Step 1a: Definition of alternatives	EB70 Report Annex 8				
Sub-Step 1b: Consistency with mandatory laws and regulations	EB70 Report Annex 8				
B.5.1.5. Has the analysis of compliance of the defined alternatives with the mandatory laws and regulations carried out appropriately?	EB70 Report Annex 8	DR	Refer to CAR above	CAR-32-33	Ok
Step 2: Investment analysis	EB70 Report Annex 8	DR			
B.5.1.6. Are the input values used in all investment analysis valid, consistent and	EB105 Report	DR	The input values used in the investment analysis are to be valid, consistent, and applicable at the time of the	CAR-35	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question applicable at the time of the investment decision taken by the PP?	Annex 6 EB 101 Report Annex 2 §96		investment decision. Please provide the basis for the values considered in the investment analysis. Also, the benchmark considered pertains to a report from 2014, please provide the justification for the consideration of the same too.		
B.5.1.7. Are all the listed input values been consistently applied in all calculations?	EB105 Report Annex 6	DR	Yes, all the listed input values have been applied consistently in all calculations.	Ok	Ok
B.5.1.8. Do the PPs rely on values from Feasibility Study Report (FSR) that are approved by national authorities for proposed project activities?	EB 101 Report Annex 2 §101	DR	Refer to CAR above	CAR-35	Ok
B.5.1.9. If PPs rely on FSR,		DR			
B.5.1.9.1. Is it possible to conclude that in the period of time between the finalization of the FSR and the investment decision input values would not have materially changed?	EB 101 Report Annex 2 §101a	DR	Refer to CAR above	CAR-35	Ok
B.5.1.9.2. Are the values used in the PDD and associated annexes fully consistent with the FSR?	EB 101 Report Annex 2 §101b §101c	DR	Refer to CAR above	CAR-35	Ok
B.5.1.10. Is the plant load factor defined ex-ante in the PDD appropriately?	EB48 Report Annex 11	DR	Refer to CAR above	CAR-35	Ok
Sub-step 2a: Determine appropriate analysis method	EB70 Report Annex 8				
B.5.1.11. Has the PDD described the selection process of investment analysis method (simple cost, investment comparison and benchmark analysis) for the proposed project activity?	EB70 Report Annex 8	DR	Yes, the project owners use the benchmark analysis for determining the financial value of the project.	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question B.5.1.12. Is the choice of the investment analysis method appropriate to the proposed project activity?	EB70 Report Annex 8 EB105 Report Annex 6	DR	Yes, the benchmark analysis is the appropriate method to use for analysing this project. The other two methods (simple cost and investment comparison) are not appropriate since there are revenues to be earned and the project owner does not provide other investment alternatives as a basis for comparison.	Ok	Ok
Sub-step 2b: Option I-Simple cost analysis	EB70 Report Annex 8			Ok	Ok
B.5.1.13. Have all costs associated with the project activity and the alternatives identified in Step 1 been documented?	EB70 Report Annex 8	DR	N/A	Ok	Ok
B.5.1.14. Has it been demonstrated and supported by valid evidence that at least one of the alternatives defined in Step 1 is less costly than the proposed project activity?	EB70 Report Annex 8	DR	N/A	Ok	Ok
Sub-step 2b: Option II-Apply investment comparison analysis	EB70 Report Annex 8				
B.5.1.15. Has the PPs identified a financial indicator (such as IRR, NPV, cost benefit ratio, or unit cost of service (e.g., levelized cost of electricity production in \$/kWh or levelized cost of delivered heat in \$/G)) which is most suitable for the project type and decision-making context regarding the investment comparison analysis?	EB70 Report Annex 8	DR	N/A	Ok	Ok
Sub-step 2b: Option III. Apply benchmark analysis	EB70 Report Annex 8				
B.5.1.16. Has the PPs identified a financial indicator (such as IRR) which is most suitable for the project type and decision-making context including the alternatives for the benchmark analysis?	EB70 Report Annex 8 EB105 Report Annex 6	DR	Yes. The PPs have identified "Equity IRR" as the financial indicator regarding the additionality of the project (page 38 of the PDD).	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	EB 101 Report Annex 2 §99a				
B.5.1.17.Has a pre-tax benchmark been applied?	EB105 Report Annex 6	DR	No. Since the project owners are using Equity IRR as the financial indicator for the project, a pre-tax benchmark cannot be used. The cost of equity, by definition, is an after-tax cost and, therefore, the benchmark is an after-tax measure.	Ok	Ok
B.5.1.18.If post tax benchmark is applied, has actual interest payable been taken into account in the calculation of income tax?	EB105 Report Annex 6	DR	No, since the project is 100% equity financed, there are no interest payables to be taken into account.	Ok	Ok
If the project participant has applied investment comparison or benchmark analysis	EB70 Report Annex 8	DR			
B.5.1.19.If the benchmark is based on parameters that are standard in the market, is the cost of equity determined appropriately? Guideline either by:	EB105 Report Annex 6	DR	Yes	Ok	Ok
B.5.1.20. selecting the values provided in the latest applicable version of Appendix of Investment Analysis Tool? or	EB105 Report Annex 6	DR	Yes. The project owners use the benchmark rate according to the World Bank policy paper “Making Informed Investment Decisions in an Uncertain World: A Short Demonstration” (February 2014).	Ok	Ok
B.5.1.21. by calculating the cost of equity using Capital Asset Pricing Model (CAPM)?	EB105 Report Annex 6	DR	N/A	Ok	Ok
B.5.1.22.If the benchmark based on parameters that are standard in the market, has the cost of debt been calculated as the cost of financing in the capital markets (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on	EB105 Report Annex 6 EB70 Report Annex 8	DR	No. The project owners are calculating an Equity IRR as the financial indicator of the additionality of the project. In addition, they are using a benchmark rate according to the World Bank policy paper “Making Informed Investment Decisions in an Uncertain World: A Short Demonstration” (February 2014) as indicated in the PDD. Therefore, it is not necessary to use the cost of debt as part of this	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
documented evidence from financial institutions with regard to the cost of debt financing of comparable projects?			comparison.		
B.5.1.23.Has the discount rates and benchmarks been derived and supported appropriately?	EB70 Report Annex 8	DR	Yes. The project owners use the benchmark rate according to the World Bank policy paper “Making Informed Investment Decisions in an Uncertain World: A Short Demonstration” (February 2014).	Ok	Ok
If the company’s internal benchmark has been used for the expected return on equity: (Only applicable to benchmark analysis)	EB105 Report Annex 6				
B.5.1.24.Has it been demonstrated that there is only one possible project developer?	EB105 Report Annex 6	DR	N/A	Ok	Ok
B.5.1.25.Has it been demonstrated that same benchmark values are used for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	EB105 Report Annex 6	DR	N/A	Ok	Ok
B.5.1.26.If the company’s expected return on equity is used as a benchmark, does the percentage of debt financing and equity financing reflect the long-term debt/equity finance structure of the legal entity owning the assets of the project activity?	EB105 Report Annex 6	DR	N/A	Ok	Ok
B.5.1.27.If the company’s expected return on equity is used as a benchmark, has the cost of debt been based on the weighted average cost of debt financing of the legal entity owning the project activity?	EB105 Report Annex 6	DR	N/A	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	B.5.1.28. In case of loans, is the weighted average cost of outstanding long-term debt used as a benchmark?	EB105 Report Annex 6	DR	N/A	Ok	Ok
	B.5.1.29. In case of bonds, is the weighted average yield of the bonds used as a benchmark?	EB105 Report Annex 6	DR	N/A	Ok	Ok
	B.5.1.30. In case of bonds, are the key parameters of the bond including the time of maturity, yield, registration issuance in the financial system and set-up in the market documented?	EB105 Report Annex 6	DR	N/A	Ok	Ok
	B.5.1.31. In case of debt financing from a parent company, is the transfer of capital to the legal entity documented?	EB105 Report Annex 6	DR	N/A	Ok	Ok
	B.5.1.32. In case of loans from a financial institution, is the contract of lending between the financial institution and the legal entity owning the assets of the project activity, or, in absence of the contract, a letter from the bank stating its intention to award the loan and the key terms for the loan documented and supported by the appropriate evidence?	EB105 Report Annex 6	DR	N/A	Ok	Ok
Sub-step 2c: Calculation and comparison of financial indicators (Only applicable to investment comparison and benchmark analysis)		EB70 Report Annex 8	DR			
	B.5.1.33. Has the period of assessment including IRR and equity IRR calculations been chosen appropriately?	EB105 Report Annex 6	DR	Not clear. A 19-year horizon has been selected to evaluate the project, but the project owners do not justify the investment horizon in the PDD.	CAR36	Ok
	B.5.1.34. Have the PPs justified the period of assessment in the context of the underlying	EB105 Report	DR	Refer to CAR above	CAR36	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
project activity?	Annex 6				
B.5.1.35. In case IRR assessment period doesn't cover the technical lifetime of the project, does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB105 Report Annex 6	DR	Yes. A fair value of project assets is included in the final year's cash flows.	Ok	Ok
B.5.1.36. Has the fair value of the project activity assets been calculated in accordance with local accounting regulations where available, or international best practice?	EB105 Report Annex 6	DR	Yes. The fair value of project assets is the book value of the assets that has not been depreciated over the 19-year life of the project.	Ok	Ok
B.5.1.37. Do the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB105 Report Annex 6	DR	Yes. The fair value of project assets is the book value of the assets that has not been depreciated over the 19-year life of the project.	Ok	Ok
B.5.1.38. Have all relevant costs been included for the calculation of IRR or other relevant financial indicator?	EB70 Report Annex 8 EB105 Report Annex 6	DR	Yes. All relevant costs have been included in the IRR calculations.	Ok	Ok
B.5.1.39. In case of project IRR, has the cost of financing expenditures (i.e. loan repayments and interest) been included?	EB105 Report Annex 6	DR	N/A	Ok	Ok
B.5.1.40. Has the depreciation, and other non-cash items related to the project activity, (those deducted in estimating gross profits on which tax is calculated) been added back to net profits in the calculation of the financial indicator (e.g. IRR, NPV)?	EB105 Report Annex 6	DR	Yes. Depreciation has been added back to the net profits in the calculation of the Equity IRR.	Ok	Ok
B.5.1.41. In case of using post-tax benchmark, has taxes been included as an expense in the	EB105 Report	DR	Yes, taxes have been included as an expense in the Equity IRR calculation.	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
IRR/NPV calculation?	Annex 6				
B.5.1.42. In case any risk premiums are applied in determination of the benchmark, are the same risks associated with the project type or activity, too?	EB 101 Report Annex 2 §100b EB70 Report Annex 8	DR	N/A	Ok	Ok
B.5.1.43. In the equity IRR, has the cost of debt (loan, bond etc.) been considered as the net cash outflow?	EB105 Report Annex 6	DR	No, since the project is 100% equity financed, there is no cost of debt to be considered as a net cash outflow.	Ok	Ok
B.5.1.44. In cases where an investment analysis is carried out in nominal terms and the available IRR benchmarks are in real terms, have PPs converted the real term values of benchmarks to nominal values by adding the inflation rate?	EB105 Report Annex 6	DR	N/A	Ok	Ok
B.5.1.45. Has it been demonstrated that proposed project activity isn't economically or financially feasible without the revenue from CDM?	EB70 Report Annex 8 EB 101 Report Annex 2 §96b	DR	Yes. The current set of calculations demonstrate that the proposed project activity is not economically or financially feasible before the inclusion of the revenue from CDM.	Ok	Ok
ACM0010					
B.5.1.46. In case the project with managing the manure for greenfield facilities, has an economic assessment of the identified lagoon design option been carried out as per step 3 (investment analysis) of the latest applicable version of the "Combined tool to identify the	ACM0010 version 8.0	DR	N/A	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question baseline scenario and demonstrate additionality”?					
B.5.1.47. In case the project with managing the manure for greenfield facilities, has the least cost anaerobic lagoon design option from the options identified been chosen by PP?	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.48. In case the project with managing the manure for greenfield facilities with several anaerobic lagoon design options and with comparably low cost exist, has the one with the lowest lagoon depth as the baseline lagoon design been chosen?	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49. In case the project with managing the manure for greenfield facilities, has the following been documented explicitly by PP?	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.1. Land cost;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.2. Engineering, procurement and construction cost;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.3. Labour cost;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.4. Operation and maintenance cost;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.5. Administration cost;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.6. Fuel cost;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.7. Capital cost and interest;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.8. Revenue from electricity sales;	ACM0010 version 8.0	DR	N/A	Ok	Ok
B.5.1.49.9. All other costs of	ACM0010	DR	N/A	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
implementing the technology of each lagoon design option;	version 8.0				
B.5.1.49.10. All revenues generated by the implementation of the proposed technology (including energy savings due to captive use of biogas as fuel for either electricity or heat generation at the project site, revenue on account of avoided water consumption, fossil fuel replacement, sale of concentrated solids as fertilizers, subsidies/fiscal incentives etc.).	ACM0010 version 8.0	DR	N/A	Ok	Ok
Sub-step 2d: Sensitivity analysis (Only applicable to investment comparison and benchmark analysis)					
B.5.1.50.Has a sensitivity analysis showing whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions, been included in the PDD?	EB70 Report Annex 8 EB105 Report Annex 6	DR	Sensitivity analysis is provided in the PDD. However, it is noted that the project crosses the benchmark in the sensitivity analysis for 10% change. As the project is already commissioned, please provide further justification and also submit documentary evidence to cross-check the investment analysis numbers in particular the investment cost and the electricity tariff.	CAR-37	Ok
B.5.1.51.Has the range of variations selected been justified in the context of the project?	EB105 Report Annex 6	DR	Refer to CAR above	CAR-37	Ok
Step-3: Barrier analysis	EB70 Report Annex 8				
B.5.1.52.Have the PPs used and referred the “Guidelines for Objective Demonstration and Assessment of Barriers”?	EB50 Report Annex 13	DR	N/A	Ok	Ok
Sub-step 3a: Identify barriers that would prevent the					

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
implementation of the proposed CDM project activity					
B.5.1.53.Has the PPs established realistic and credible barriers that would prevent the implementation of the proposed CDM project activity?	EB70 Report Annex 8	DR	N/A	Ok	Ok
Sub-step 3b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)	EB70 Report Annex 8	DR			
B.5.1.54.Has the identified barriers that would prevent the implementation of the proposed project activity, but not the implementation of at least one of the alternatives in particular the identified baseline scenario, been supported by the clear and valid evidence?	EB70 Report Annex 8 EB 101 Report Annex 2 §103 EB50 Report Annex 13	DR	N/A	Ok	Ok
B.5.1.55.Is it demonstrated and supported by proper evidence how the CDM alleviates each of the identified barriers to a level that the project is not prevented anymore from occurring by any of the barriers?	EB50 Report Annex 13 EB70 Report Annex 8	DR	N/A	Ok	Ok
Investment, technological and other barriers					
B.5.1.56.In case of investment barriers, is it demonstrated in the PDD that the financing of the project was assured only due to the benefit of the CDM?	EB50 Report Annex 13	DR	N/A	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question B.5.1.57.Can any of the indicated barriers be eliminated by additional financial investments into the proposed project activity?	EB50 Report Annex 13	DR	N/A	Ok	Ok
B.5.1.58.While demonstrating barriers related to the lack of access to capital, technologies and skilled labour, do the PPs provide information on the nature of the companies and entities involved in the financing and implementation of the project?	EB50 Report Annex 13	DR	N/A	Ok	Ok
Barriers due to prevailing practice					
B.5.1.59.In case PPs claim that project activity is “first-of-its-kind” have those claims been substantiated and supported by proper evidence?	EB70 Report Annex 8 EB84 Report Annex 6 §12	DR	N/A	Ok	Ok
Step-4: Common practice analysis					
B.5.1.60.If the project is not “first-of-its-kind”, have PPs applied the common practice analysis appropriately?	EB70 Report Annex 8 EB101 Report Annex 2 §108 EB84 Report Annex 7	DR	Yes	Ok	Ok
B.5.1.61.Is the selection of the assessment region explained and justified completely and correctly?	EB101 Report Annex 2 §108a EB84 Report Annex 7 §9	DR	Yes	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
<p>Sub-step 4a: The proposed CDM project activity(ies) applies measure(s) that are listed below (Questions from B.5.69 to B.5.81 are applicable)</p> <ul style="list-style-type: none"> • Fuel and feedstock switch • Switch of technology with or without change of energy source (including energy efficiency improvement as well as use of renewable energies); • Methane destruction • Methane formation avoidance 	<p>EB70 Report Annex 8 EB84 Report Annex 7 §10</p>				
<p>B.5.1.62. Have all projects within an applicable output range (+/-50%) been included into the common practice analysis?</p>	<p>EB84 Report Annex 7 §13</p>	<p>DR</p>	<p>Yes, the design capacity of the proposed project is 6.004 MWe. Therefore, the applicable output range is from 3.002 MWe-9.006 MWe.</p>	<p>Ok</p>	<p>Ok</p>
<p>B.5.1.63. Have the similar projects (both CDM and non-CDM) been identified?</p>	<p>EB84 Report Annex 7 §14</p>	<p>DR</p>	<p>Please clearly depict the output from the application of the steps in the common practice tool in the PDD including values for Nall and Ndiff. The step 3 is not correctly applied.</p>	<p>CAR38</p>	<p>Ok</p>
<p>B.5.1.64. If the similar projects have been identified, are the following conditions fulfilled?</p>	<p>EB84 Report Annex 7 §14</p>	<p>DR</p>	<p>Refer to CAR above</p>	<p>CAR38</p>	<p>Ok</p>
<p>B.5.1.64.1. Are the projects located in the applicable geographical area?</p>	<p>EB84 Report Annex 7 §14</p>	<p>DR</p>	<p>Yes</p>	<p>Ok</p>	<p>Ok</p>
<p>B.5.1.64.2. Are the projects applied the same measure as the proposed project activity?</p>	<p>EB84 Report Annex 7 §14</p>	<p>DR</p>	<p>Refer to CAR above</p>	<p>CAR38</p>	<p>Ok</p>
<p>B.5.1.64.3. Do the projects use the same energy source/fuel and feedstock as the proposed project activity, if a technology switch measure is implemented by the proposed</p>	<p>EB84 Report Annex 7 §14</p>	<p>DR</p>	<p>Refer to CAR above</p>	<p>CAR38</p>	<p>Ok</p>

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
project activity?					
B.5.1.64.4. Do the plants in which the projects have been implemented produce goods or services with comparable quality, properties and applications areas (e.g. clinker) as the proposed project plant?	EB84 Report Annex 7 §14	DR	Refer to CAR above	CAR38	Ok
B.5.1.64.5. Are the capacity or output of the projects within the applicable capacity or output range calculated in Question B.5.69?	EB84 Report Annex 7 §14	DR	Yes	Ok	Ok
B.5.1.64.6. Do the projects start commercial operation before the PDD published for global stakeholder consultation or before the start date of proposed project activity, whichever is earlier for the proposed project activity?	EB84 Report Annex 7 §14	DR	Yes	Ok	Ok
B.5.1.65. Within the projects identified in Question B.5.1.71, have the following project activities been identified?	EB84 Report Annex 7 §15	DR	Yes	Ok	Ok
B.5.1.65.1. Non registered CDM project activities	EB84 Report Annex 7 §15	DR	Yes	Ok	Ok
B.5.1.65.2. Project activities not submitted for registration	EB84 Report Annex 7 §15	DR	Yes	Ok	Ok
B.5.1.65.3. Project activities not undergoing validation	EB84 Report Annex 7 §15	DR	Yes	Ok	Ok
B.5.1.66. Within similar projects identified in Question B.5.1.70, have the projects applying	EB84 Report Annex 7 §16	DR	Yes	Ok	Ok

*DR= Document Review, I= Interview, SV= Site Visit

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
technologies that are different to the technology applied in the proposed project activity been identified?	EB70 Report Annex 8 EB101 Report Annex 2 §108c				
B.5.1.67.Has the factor (F=1-Ndiff / Nall) been calculated correctly?	EB84 Report Annex 7 §17	DR	Yes	Ok	Ok
B.5.1.68.Based on an analysis provided in the PDD, is it possible to conclude that the proposed project activity is not common practice?	EB84 Report Annex 7 §18	DR	Yes	Ok	Ok
Sub-step 4b: The proposed CDM project activity(ies) doesn't apply any of the measures that are listed in Sub-step 4a above (Questions B.5.1.76 and B.5.1.77 are applicable):					
B.5.1.69.Has the PPs provided an analysis of any other activities that are operational and that are similar to the proposed project activity in the PDD?	EB70 Report Annex 8 EB101 Report Annex 2 §109b	DR	Refer to CAR above	CAR38	Ok
B.5.1.70.If similar activities have been identified, has it been demonstrated that there are essential distinctions between them and proposed project activity, which demonstrate the necessity of the CDM benefits?	EB70 Report Annex 8 EB101 Report Annex 2 §109c	DR	Refer to CAR above	CAR38	Ok
In all cases to check additionality at the final stage					
B.5.1.71.Has the selected methodology been	EB101	DR	Refer to CAR above	CAR38	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation RequirementsQuestion	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
correctly applied with respect to additionality?	Report Annex 2 §63d				
B.5.1.72.As a result, has the PPs demonstrated that the project activity is additional in accordance with the selected methodology(ies) and tool(s)?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 2 §88	DR	Refer to CAR above	CAR38	Ok
B.6. Sustainable Development Goals (SDG) outcomes					
B.6.1. Has the PPs specified the relevant SDG target for each of three SDGs addressed by the project?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.1. Explanation of methodological choices/approaches for estimating the SDG outcome					
B.6.1.1. Has the PPs explained how the methods or methodological steps in the selected methodology(ies), for calculating baseline and project outcomes are applied?	GS-PDD-FORM Ver. 1.2	DR			
B.6.1.1.1. Baseline	GS-PDD-FORM Ver. 1.2	DR	Please clarify and correct on the following points: - The average number of animals and respective types considered in the calculation of baseline CH4 emissions are to be clarified; - Also clarify and the indicate the relevant equations following the option as per the methodology as has been	CAR39	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation RequirementsQuestion	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
			considered for Annual volatile solid excretions for livestock LT (VS _{LT}) and annual average number of animals of type LT (N _{LT}); - The consideration of baseline emissions from heat are not appropriate and inconsistent too.		
B.6.1.1.2. Project	GS-PDD-FORM Ver. 1.2	DR	Please clarify and correct regarding the project emissions from manure transportation as per the “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion”.	CAR40	Ok
B.6.1.1.3. Leakage	GS-PDD-FORM Ver. 1.2	DR	It is indicated that ‘project does not store liquid and solid digestate under any conditions, the digestates used as fertilizer in nearby agricultural land as free and these materials are not used/stored in any other conditions on land. Hence there is no leakage due to digestate storage for this project. In addition, this project does not use SWDS as fuel source in reactors hence leakage due to SWDS is not applicable for this project.	Ok	Ok
B.6.1.1.4. Net benefit	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR39-40	Ok
B.6.1.2. Has the PPs clearly stated which equations will be used in calculating net benefit?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR39-40	Ok
B.6.1.3. Has the PPs explained and justified all relevant methodological choices including the following?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §72	DR	Refer to CAR above	CAR39-40	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.6.1.3.1. Where the methodology(ies) include different scenarios or cases, indicate and justify which scenario or case applies to the project activity	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §72	DR	Refer to CAR above	CAR39-40	Ok
B.6.1.3.2. Where the methodology(ies) provide different options to choose from , indicate and justify which option is chosen for the project activity	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §72	DR	Refer to CAR above	CAR39-40	Ok
B.6.1.3.3. Where the methodology(ies) allow different default values, indicate and justify which of the default values have been chosen for the project activity.	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR39-40	Ok
B.6.2. Data and parameters fixed ex ante					
B.6.2.1. Have the PPs included a compilation of information on the data and parameters that are not monitored during the crediting period but are determined before the registration and remain fixed throughout the crediting period under section B.6.3 of the PDD?	GS-PDD-FORM Ver. 1.2	DR	The Annual Average ambient temperature at project site indicated in the section B.6.2 is inconsistent with other parts of the PDD and also the corresponding MCF too is not correctly applied. Further, the comment in the methodology as ‘A conservativeness factor should be applied by multiplying MCF values (estimated as per above bullet) with a value of 0.94, to account for the 20 per cent uncertainty in the MCF values as reported by IPCC 2006’ is to be applied too. Please clarify and correct accordingly.	CAR41	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
			Furthermore, while stating the values the use of comma and decimals is to be noted and applied correctly. Also, other parameters as per the applied tools too are missing such as flare efficiency among others.		
B.6.2.2. Are the data that are calculated with the equations provided in the selected methodology(ies) or default values specified in the methodology(ies) included in the compilation?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR41	Ok
B.6.2.3. Are the following information regarding the data and parameters specified correctly?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.3.1. Relevant SDG indicator	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.3.2. Data/parameter	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.3.3. Data/parameter unit	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.3.4. Description of the data/parameter	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.3.5. Source of data	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.3.6. Values applied to data/parameter	GS-PDD-FORM	DR	Yes	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	Ver. 1.2				
B.6.2.4. Where applied values have been measured, are the following included in the PDD?	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.4.1. The equipment used	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.4.2. The standards used	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.4.3. Responsible person/entity having undertaken the measurement	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.4.4. The date of measurement(s)	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.4.5. The frequency of measurement(s)	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.4.6. The measurement results	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.6.2.5. Has the purpose of data been chosen as one of the following for each data/parameter?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.5.1. Calculation of baseline;	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok

*DR= Document Review, I= Interview, SV= Site Visit

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.6.2.5.2. Calculation of project;	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.2.5.3. Calculation of leakage.	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.6.3. Ex ante estimation of SDG impact					
B.6.3.1. Do the steps taken and equations applied to calculate following comply with the requirements of the selected baseline and monitoring methodology including applicable tool(s)?	EB101 Report Annex 1 §71 EB101 Report Annex 2 §110	DR	The steps taken and equations applied to calculate the baseline, project, leakage and net outcomes and comply with the requirements of the methodology including applicable tool(s) has not been presented in section B.6.3 of the PDD. Further, the basis of arriving at the emission reductions from heat are to be clarified along with the basis of the efficiency of heat generation equipment.	CAR42	Ok
B.6.3.1.1. project outcome	EB101 Report Annex 1 §71 EB101 Report Annex 2 §110	DR	Refer to CAR above	CAR42	Ok
B.6.3.1.2. baseline outcome	EB101 Report Annex 1 §71 EB101 Report Annex 2 §110	DR	Refer to CAR above	CAR42	Ok
B.6.3.1.3. leakage	EB101 Report	DR	Refer to CAR above	CAR42	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation RequirementsQuestion	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	Annex 1 §71 EB101 Report Annex 2 §110				
B.6.3.1.4. Net outcomes	EB101 Report Annex 1 §71 EB101 Report Annex 2 §110	DR	Refer to CAR above	CAR42	Ok
B.6.3.2. Where the methodology allows for selection between options for equations or parameters, has adequate justification been provided in the PDD?	EB101 Report Annex 2 §111	DR	Refer to CAR above	CAR42	Ok
B.6.3.3. Has the PPs used the values contained in the tables in section B.6.2 of the PDD for data and parameters available before registration?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR42	Ok
B.6.3.4. Has the PPs used the estimates contained in the table in section B.6 of the PDD for the data/parameters not available before registration and monitored during the crediting period?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR42	Ok
B.6.3.5. If any of these estimates has been determined by a sampling approach, has the PP provided a description of the sampling efforts undertaken in accordance with the “Standard for sampling and surveys for CDM project activities and programme of	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR42	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
activities”?					
B.6.3.6. Has the PPs provided a sample calculation for each equation used?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR42	Ok
B.6.3.7. Have the PPs provided a sample calculation for each equation used, substituting the values used in the equations?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR42	Ok
B.6.3.8. Is it explained and clearly stated how the procedures in the approved methodology or standardized baseline(s) to calculate emissions like project emissions, baseline emissions and leakages are applied by the PPs?	EB101 Report Annex 2 §112	DR	Refer to CAR above	CAR42	Ok
B.6.3.9. Has the selected methodology or standardized baseline(s) been correctly and transparently applied with respect to algorithms and/or formulae used to determine emission reductions?	EB101 Report Annex 2 §63c	DR	Refer to CAR above	CAR42	Ok
ACM0010					
B.6.3.10. Are the baseline emissions calculated using equation (1) in the methodology?	ACM0010 version 8.0	DR	The equation 1 as per the applied methodology has been indicated.	Ok	Ok
B.6.3.11. Are the baseline emissions from animal waste treatment calculated using equation (2) in the methodology?	ACM0010 version 8.0	DR	Yes, the baseline emissions from animal waste treatment are calculated using equation (2) in the methodology.	Ok	Ok
B.6.3.12. Has $VS_{LT,y}$ been determined using the options available in the methodology?	ACM0010 version 8.0	DR	It is indicated in the PDD that $VS_{LT,y}$ would be determined using the option 1 as in the methodology	Ok	Ok
B.6.3.13. Has NL_T been determined using the options available in the methodology?	ACM0010 version 8.0	DR	It is indicated in the PDD that NL_T would be determined using the option 2 as in the methodology	Ok	Ok
B.6.3.14. Has the baseline emissions associated with electricity generation ($BEEC,y$) be	ACM0010 version 8.0	DR	Yes	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question calculated using the latest applicable version of “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”?					
B.6.3.15.Are the baseline emissions associated with heat generation (BEHG,y) calculated using equation (11) in the methodology?	ACM0010 version 8.0	DR	Refer CAR above	CAR-42	Ok
B.6.3.16.Are the project emissions calculated properly using equations (12) to (19), where relevant, in the methodology?	ACM0010 version 8.0	DR	The options for the calculation of project emissions are clearly indicated. However, the emissions related to transportation has not been provided. Further, provide the documentary evidence that for the project average return distance between the origin and the destination.	CAR43	Ok
B.6.3.17.Are the leakage emissions calculated properly using equations (20) to (30), where relevant, in the methodology?	ACM0010 version 8.0	DR	Yes	Ok	Ok
B.6.3.18.Are the emission reductions calculated properly using equations (31) in the methodology?	ACM0010 version 8.0	DR	Yes, the reference to equation 31 in the methodology has been indicated. However, please clarify as to how it is ensured that emissions due to agricultural waste is not taken into account for baseline emission calculation.	CAR44	Ok
B.6.4. Summary of the ex-ante estimates of each SDG impact					
B.6.4.1. Have the PPs summarized the results of the ex-ante calculation of emission reductions for all years of the crediting period, using the tabular format?	GS-PDD-FORM Ver. 1.2	DR	The values are to be updated in section B.6.4 based on previous comments. Further the summary of ex-ante estimates is to be provided for all the SDGs apart from just SDG 13.	CAR45	Ok
B.7. Monitoring Plan					
B.7.1. Data and parameters to be monitored					

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.7.1.1. In the data/parameter tabular formats for monitoring, has the name of each relevant SDG indicator been included?	GS-PDD-FORM Ver. 1.2	DR	Yes, the data/parameter tabular formats for monitoring, has the name of each relevant SDG indicator included.	Ok	Ok
B.7.1.2. In the data/parameter tabular formats for monitoring, has the name of each data/parameter been included?	GS-PDD-FORM Ver. 1.2	DR	The relevant data/parameters should be included following the order in the methodology and applied tools. Also, the format as per the PDD template is to be correctly applied.	CAR46	Ok
B.7.1.3. Has the unit of each data/parameter been included?	GS-PDD-FORM Ver. 1.2	DR	Refer CAR above	CAR-46	Ok
B.7.1.4. Has the description of each data/parameter been included?	GS-PDD-FORM Ver. 1.2	DR	Refer CAR above	CAR-46	Ok
B.7.1.5. Has the source of each data/parameter been included?	GS-PDD-FORM Ver. 1.2	DR	Refer CAR above	CAR-46	Ok
B.7.1.6. Where several sources of data/parameters are used, is the choice of data/parameter sources explained and justified?	GS-PDD-FORM Ver. 1.2	DR	N/A	Ok	Ok
B.7.1.7. Has the applied value of each data/parameter been included?	GS-PDD-FORM Ver. 1.2	DR	The row of value(s) applied is missing in the tables presented in section B.7.	CAR47	Ok
B.7.1.8. Has the measurement methods and procedures been included?	GS-PDD-FORM Ver. 1.2	DR	Refer CAR above	CAR-46	Ok
B.7.1.9. Has the PPs included which measurement equipment is used for monitoring?	GS-PDD-FORM Ver. 1.2	DR	Refer CAR above	CAR-46	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question B.7.1.10. Have the PPs included description of calibration procedures for the monitoring equipment including the following?	GS-PDD-FORM Ver. 1.2	DR	The description of calibration procedures for the monitoring equipment are to be included, in particular for the electricity generation and biogas flow and methane content therein.	CAR48	Ok
B.7.1.10.1. Frequency of the calibration	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §81c ACM 0002 Version 20	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.10.2. Accuracy of the calibration	EB101 Report Annex 1 §81b	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.10.3. Uncertainty of the calibration	EB101 Report Annex 1 §81b	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.10.4. Calibrating agency/person	EB101 Report Annex 1 §81c	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.10.5. The relevant national/international standards	EB101 Report Annex 1 §81c	DR	Refer to CAR above	CAR46-48	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
B.7.1.11. Has the accuracy level of the measurement method included?	EB101 Report Annex 1 §81b	DR	The accuracy level of the measurement method is to be included, in particular for the electricity generation and biogas flow and methane content therein.	CAR49	Ok
B.7.1.12. Has the responsible person/entity for the measurements included?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.13. Has the interval for the measurements included?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.14. Has the monitoring frequency for each data/parameter been included?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.15. Has the QA/QC procedures of each data/parameter been included?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §81a ACM 0002 Version 20.0	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.16. Has the purpose of data/parameter been chosen as one of the following for each data/parameter?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.16.1. Calculation of baseline outcome;	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR46-48	Ok
B.7.1.16.2. Calculation of project outcome;	GS-PDD-FORM	DR	Refer to CAR above	CAR46-48	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
	Ver. 1.2				
B.7.1.16.3. Calculation of leakage.	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
B.7.1.17. Have the PPs developed and described the monitoring plan for the proposed project activity in accordance with the selected methodology(ies) and all other applicable rules and requirements?	EB101 Report Annex 1 §78 EB101 Report Annex 2 §117	DR	The monitoring plan does not include all the relevant tools and the associated monitoring parameters. As per the methodology, the emission reductions achieved by the project activity from the anaerobic digester due to the collection and destruction of biogas shall be determined ex post through direct measurement of the amount of biogas fuelled, flared or gainfully used. Further, the number of employment is not stated. Furthermore, the contribution to SDG12 in terms of waste managed is not indicated as a monitoring parameter.	CAR50	Ok
B.7.1.18. Does the monitoring plan include all data, parameters and related information required by the selected methodology(ies)?	EB101 Report Annex 2 §118a-ii	DR	All the relevant monitoring parameters as per the methodology and the associate tools have not been included in the section for e.g., measurement of the biogas flow, methane content, operation of engines, operation of flare etc. Further, it is unclear as to how the baseline emissions from the co-digestion of the agricultural waste would be discounted. As per the methodology, in case of co-digestion, for one or more sources of substrates, it cannot be demonstrated that the organic matter would otherwise have been left to decay anaerobically, baseline emissions related to such organic matter shall be accounted for as zero, whereas project emissions shall be calculated according to the procedures presented in this methodology for all co-digested substrates.	CAR51	Ok
B.7.1.19. Are the monitoring arrangements described in the monitoring plan feasible	EB101 Report	DR	Refer to CAR above	CAR51	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
within the project design?	Annex 2 §118b				
B.7.2. Sampling plan					
B.7.2.1. Are the data and parameters monitored in section B.7.1 of the PDD determined by a sampling approach?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 2 §29e EB86 Report Annex 4	DR	N/A	Ok	Ok
B.7.2.2. If the data and parameters monitored in section B.7.1 of the PDD are to be determined by a sampling approach, has the PP provided a description of the sampling plan in accordance with the recommended outline for a sampling plan in the latest applicable version of “Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities”? (GS-PDD-FORM Ver. 1.2 EB105 Report Annex 1 §29 §30 §31 §32 §33	DR	N/A	Ok	Ok
B.7.2.3. If the sampling approach is used by the PPs, does the sampling plan present a reasonable approach for obtaining unbiased, reliable estimates of the variables?	EB86 Report Annex 4 §40a	DR	N/A	Ok	Ok
B.7.2.4. If the sampling approach is used by the PPs, are the elements of objectives and	EB86 Report Annex 4	DR	N/A	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
reliability requirements complete?	§40a-i				
B.7.2.5. If the sampling approach is used by the PPs, do the requirements specified agree with those stated in the appropriate standards?	EB86 Report Annex 4 §40a-i	DR	N/A	Ok	Ok
B.7.2.6. If the sampling approach is used by the PPs, is the population in the sampling plan clearly defined?	EB86 Report Annex 4 §40b	DR	N/A	Ok	Ok
B.7.2.7. If the sampling approach is used by the PPs, is the proposed sampling approach clear?	EB86 Report Annex 4 §40c	DR	N/A	Ok	Ok
B.7.2.8. If the sampling approach is used by the PPs, does the sampling approach comply with the description of the population?	EB86 Report Annex 4 §40c-ii	DR	N/A	Ok	Ok
B.7.2.9. If the sampling approach is used by the PPs, is the proposed sample size adequate to achieve the minimum confidence/precision requirements?	EB86 Report Annex 4 §40d	DR	N/A	Ok	Ok
B.7.2.10.If the sampling approach is used by the PPs, is the ex-ante estimate of the population variance needed for the calculation of the sample size adequately justified?	EB86 Report Annex 4 §40d	DR	N/A	Ok	Ok
B.7.2.11.If the sampling approach is used by the PPs, is the sample representative of the population?	EB86 Report Annex 4 §40e	DR	N/A	Ok	Ok
B.7.2.12.If the sampling approach is used by the PPs, is it identified how the sampling frame would be kept?	EB86 Report Annex 4	DR	N/A	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question					
	§40e-ii				
B.7.2.13.If the sampling approach is used by the PPs, are the methods of data collection clear and unambiguous?	EB86 Report Annex 4 §40f-i	DR	N/A	Ok	Ok
B.7.2.14.If the sampling approach is used by the PPs, are the procedures for the data measurements defined appropriately and clearly?	EB86 Report Annex 4 §40g	DR	N/A	Ok	Ok
B.7.2.15.If the sampling approach is used by the PPs, do the procedures for measurements adequately provide for minimizing non-sampling errors?	EB86 Report Annex 4 §40g	DR	N/A	Ok	Ok
B.7.2.16.If the sampling approach is used by the PPs, is the quality control and assurance strategy adequate?	EB86 Report Annex 4 §40g-i	DR	N/A	Ok	Ok
B.7.2.17.If the sampling approach is used by the PPs, are the proposed skill sets, qualifications and experience of the personnel to be engaged to conduct sampling adequate?	EB86 Report Annex 4 §40h-i	DR	N/A	Ok	Ok
B.7.3. Other elements of monitoring plan					
B.7.3.1. Has the operational and management structure been given in the monitoring plan to monitor emission reductions and any leakage generated by the project activity?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §82a	DR	Section B.7.3. does not provide much detail regarding the biogas measurement and associated data management.	CAR52	Ok
B.7.3.2. Has the PP clearly indicated the responsibilities and institutional	GS-PDD-FORM	DR	The responsibilities and institutional arrangements for data	CAR53	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question arrangements for data collection and archiving?	Ver. 1.2 EB101 Report Annex 1 §82c		collection and archiving in context of biogas is to be indicated.		
C. Duration and crediting period					
C.1. Duration of project					
C.1.1. Start date of project					
C.1.1.1. Has the start date of the project, in the format of DD/MM/YYYY been stated under section C.1.1 of the PDD?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §85	DR	The start date is cited as 11/12/2019 corresponding to the construction agreement. Please submit the corresponding document too.	CL-12	Ok
C.1.1.2. Has the PP described how this date has been determined?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §85	DR	The start date is cited as corresponding to the construction agreement.	Ok	Ok
C.1.1.3. Has the PP provided evidence to support this date?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §85	DR	Refer CL above	CL-12	Ok

*DR= Document Review, I= Interview, SV= Site Visit

Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
C.1.2. Expected operational lifetime of project					
C.1.2.1. Is the expected operational lifetime of the project activity stated in years and months under section C.1.2 of the PDD?	GS-PDD-FORM Ver. 1.2 EB101 Report Annex 1 §86	DR	It is indicated that <i>'The generation license by EMRA dated 04/10/2018 is valid for 10 years. The operational lifetime of the project is 10 years (until 04/0/2028).'</i> Please correct the operational lifetime given that the project start date is after the grant of licence and also how the lifetime is linked to the license.	CAR-54	Ok
C.2. Crediting period of project					
C.2.1. Start date of crediting period					
C.2.1.1. Is the start date of the crediting period of the project activity given in DD/MM/YYYY format?	GS-PDD-FORM Ver. 1.2	DR	The start date of the crediting period is indicated as 01/01/2021	Ok	Ok
C.2.1.2. Have the PPs determined only one start date for the crediting period, even in cases of phased implementation of the proposed project activity?	EB101 Report Annex 1 §89	DR	Yes	Ok	Ok
C.2.1.3. Has the PPs used any qualifications to the start date, such as "expected"?	EB101 Report Annex 1 §90	DR	N/A	Ok	Ok
					Ok
C.2.2. Total length of crediting period					
C.2.2.1. Is the length of the crediting period of the proposed project activity stated in years and months under section C.2.3 of the PDD?	GS-PDD-FORM Ver. 1.2	DR	The total length of the first crediting period is 5 years (01/01/2021-31/12/2025).	Ok	Ok
D. Summary of Safeguarding Principles and Gender					

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Sensitive Assessment					
D.1. Safeguarding principles that will be monitored					
D.1.1. Has the safeguarding principles that will be monitored been summarized including the mitigation measures added to the monitoring plan? Have the PPs carried out an analysis of the social, economic and environmental impacts following the GS4GG Safeguarding Principles and Requirements?	GS-PDD-FORM Ver. 1.2	DR	The safeguarding principles that will be monitored have to be summarized including the mitigation measures added to the monitoring plan.	CAR55	Ok
D.1.2. Are all the safeguarding principles stated?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.1.3. Are all the relevant assessment questions included pertaining to the safeguarding principles?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.1.4. Is the relevance of the principle cited correctly (Yes/potentially/no)?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.1.5. Is proper justification for the safeguarding principle indicated?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.2. Assessment that project complies with ‘gender sensitive’ requirements					
D.2.1. Has the evidence been provided that the project concept and design cover the overall societal context from a gender perspective?	GS-PDD-FORM Ver. 1.2	DR	The assessment that the project complies with GS4GG Gender Sensitive requirements has been performed.	Ok	Ok
D.2.2. Does the project reflect the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question					
D.2.3. Has it been explained how the project align with existing country policies, strategies and best practices?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.2.4. Has an expert been involved for the Gender Safeguarding Principles & Requirements, where required?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.2.5. Has it been explained how the project address the questions raised in the Gold Standard Safeguarding Principles & Requirements document?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
D.2.6. Does the project apply the Gold Standard Stakeholder Consultation & Engagement Procedure, Requirements & Guidelines?	GS-PDD-FORM Ver. 1.2	DR	Yes	Ok	Ok
E. Summary of Local Stakeholder Consultation					
E.1. Summary of stakeholder mitigation measures					
E.1.1. Has the PP described the process by which comments from stakeholders have been invited for the project?	GS-PDD-FORM Ver. 1.2	DR	It is indicated in section E about a 2 step GS4GG consultation. However, noting that the stakeholder consultation was carried out in 2017 under GS version 2.2. Please clarify and correct accordingly. Also noting that the project has had its LSC review done by GS under 2.2 Dec 2019, however, the validation has not been completed within 2 years from listing.	CAR56	Ok
E.1.2. Has the PP conducted the stakeholder consultation in accordance with GS4GG Stakeholder Procedure Requirements and	GS-PDD-FORM	DR	Refer to CAR above	CAR56	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question Guidelines?	Ver. 1.2				
E.1.3. Has the PP demonstrated how due steps/actions were taken to appropriately engage stakeholders and solicit comment?	EB101 Report Annex 1 §94	DR	Refer to CAR above	CAR56	Ok
E.1.4. Has the PP invited comment from stakeholders in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted?	EB101 Report Annex 1 §99 EB101 Report Annex 2 §132	DR	Refer to CAR above	CAR56	Ok
E.1.5. Has the PPs described the proposed project in a manner that allows the stakeholders to understand the project activity, taking into account confidentiality provisions of the applicable CDM M&Ps and requirements?	EB101 Report Annex 1 §101	DR	Refer to CAR above	CAR56	Ok
E.1.6. Has the PP identified the stakeholders that have made comments?	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR56	Ok
E.1.7. Has the PP provided a summary of the stakeholder comments in a complete and clear manner?	EB101 Report Annex 1 §105 EB101 Report Annex 2 §132f	DR	Refer to CAR above	CAR56	Ok
E.1.8. Has the PPs provided information demonstrating that all comments received	EB101 Report	DR	Refer to CAR above	CAR56	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
Question have been considered?	Annex 1 §107				
E.1.9. Is the process on how the PPs taken into account of all comments received described in the PDD?	EB101 Report Annex 1 §107 EB101 Report Annex 2 §132g	DR	Refer to CAR above	CAR56	Ok
E.2. Final continuous input / grievance mechanism					
E.2.1. Has the relevant methods and all details of chosen methods been provided in the related tabular format?	GS-PDD-FORM Ver. 1.2	DR	The relevant methods and all details of chosen methods for receiving continuous input/grievance mechanism have not been provided in the related tabular format.	CAR57	Ok
E.2.2. Has the following been provided as the mandatory methods as part of the final continuous input / grievance mechanism	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR57	Ok
E.2.2.1. Continuous input / grievance expression process book	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR57	Ok
E.2.2.2. GS contact	GS-PDD-FORM Ver. 1.2	DR	Refer to CAR above	CAR57	Ok

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Table 1 –GS-PDD-FORM, GS4GG and CDM Validation Requirements Question	Reference	Means of Validation*	Findings, Comments, References and Document Sources	Draft Opinion	Final Opinion
F. Other Requirements					
F.1. Forward action requests (FARs) identified during preliminary GS review and/or LSC review					
F.1.1. Are there any FARs from the preliminary GS review and/or LSC review stages?	EB101 Report Annex 2 §36	DR	Please submit the preliminary GS review and LSC review documents.	CL-13	Ok

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Table 2 – Resolution of Corrective Action, Forward Action and Clarification Requests

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
<p>CAR-1 Please indicate the GS ID of the project activity. The LSC review feedback form indicates GS5920.</p>	1.1	<p>Response 1: The GS ID has been indicated.</p>	<p>Review-1 Ok closed (The GS ID is indicated)</p>
<p>CAR-2 Please clarify the change in project title indicated as 'The Meram Biogas and Organic Fertilizer Plant' in the Local Stakeholder Consultation Report Feedback under GS Version 2.2 VER, whereas the PDD states 'Meram Biogas Power Plant'</p>	1.2	<p>Response 1: The name in the PDD has been change as Altaca Meram Biogas Plant which is the name in the Sustain-Cert App.</p>	<p>Review-1 Ok closed (The project name has been made consistent)</p>
<p>CAR-3 Please indicate the first submission date in dd/mm/yyyy format.</p>	1.3	<p>Response 1: The first submission date has been indicated in the requested format.</p>	<p>Review-1 Ok closed (The date is indicated)</p>
<p>CAR-4 Please clarify the basis of indicating the project cycle as 'Regular'. Further, it is noted that the project has had its LSC review done by GS under 2.2 Dec 2019, however, the validation has not been completed within 2 years from listing.</p>	1.16	<p>Response 1: As you may remember, the project had to be validated until November 2021, as per the previous gold standard rules. In fact, the date the project was listed made it excluded from the November 2021 rule, but the GS team did not accept this and the GS process of the project was suspended. With the new GS rule published in the following process, if the project is validated until November 2022, the way to be included in the certification review process has</p>	<p>Review-1 Ok closed (Clarified and corrected to retroactive)</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
		<p>been opened. For these reasons, there have been delays in the validation process. In the final case, there is no obstacle due to GS rules in front of the submission of the project to GS in November 2022.</p>	
<p>CAR-5 Contributions to SDG7, SDG8, SDG12 and SDG13 is indicated in the tabular format. However, reduction of SO2 and NOx under SDG 13 are to be clarified and also no estimates under SDG 8 have been cited.</p>	2	<p>Response 1: SO2 and NOx reductions have already been indicated and value for SDG 8 has been cited.</p>	<p>Review-1 Ok closed (Table 1 has been revised)</p>
<p>CAR-6 The project is indicated as using biogas generated from cattle manure, chicken manure and agricultural wastes - via anaerobic digestion for power generation through gas engines. It is indicated that the project activity reduces GHG emissions released from the anaerobic decay of organic waste. Please indicate the scenario existing prior to the implementation of the project activity about the referred organic wastes such as chicken manure and agricultural wastes collected from neighbouring waste sources and electricity export to grid too. Further, the quantum of waste being treated is also to be indicated. Furthermore, elaborate what BPP stands for prior to abbreviating.</p>	A.1.1	<p>Response 1: The scenario existing prior to the implementation of the project activity has been indicated for cattle and chicken manures, agricultural wastes and electricity export to grid. The amount of waste handled by the project has been indicated. It is stated that BPP stands for Biogas Power Plant.</p> <p>Response 2: Baseline scenario for all kind of wastes used by the project and quantum of them added to Section A1 , A3 and Table 1 of the revised PDD document. After adding agricultural waste amount, project emissions due to transportation changed (5,276 tonne CO2 to 5,355 tonne CO2). Related revisions on transportation project emission were done in excel and PDD document accordingly.</p>	<p>Review-1 Please note and clearly state separately the existing scenario (pre-project) and the baseline scenario explicitly for all input materials (including chicken manure and agricultural wastes). Further, the quantum of waste is not indicated.</p> <p>Review-2 Ok closed (The PDD has been revised to include the details)</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
<p>CAR-7</p> <p>It is indicated that in the baseline scenario manure from the farms were being left to decay in anaerobic lagoons or spread over the fields. Please clarify further on the same.</p> <p>Furthermore, baseline scenario for other waste types is not clarified. Please indicate the baseline scenario about the referred organic wastes such as chicken manure and agricultural wastes and electricity export to grid too.</p>	A.1.2	<p>Response 1:</p> <p>Baseline scenarios have been clarified.</p>	<p>Review-1</p> <p>Ok closed (Clarified and corrected. Baseline scenario for other waste types also included)</p>
<p>CAR-8</p> <p>The project's estimated amount of CO2 reduction per annum and total GHG emission reductions for the chosen crediting period are to be indicated.</p> <p>Please also include the digester and other civil works in the milestone table too.</p>	A.1.3	<p>Response 1:</p> <p>The project's estimated amount of CO2 reduction per annum and total GHG emission reductions for the chosen crediting period have already been indicated in section A.1.</p> <p>The digester and other civil works will be included in the milestone table.</p>	<p>Review-1</p> <p>Ok closed (The PDD is revised to include the requested)</p>
<p>CAR-9</p> <p>Please indicate briefly as to how the project contributes to the sustainable development of the Host Party.</p>	A.1.4	<p>Response 1:</p> <p>In the absence of the project activity, the waste materials used as energy sources would have been disposed but not been utilised and the energy demand would be met using fossil fuels. This statement has been added to Section A.1</p>	<p>Review-1</p> <p>Ok closed (The PDD is revised to include the requested)</p>
CAR-10	A.1.1.1	Response 1:	Review-1

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
<p>Please clarify and correct the statement in section A.1.1 of the PDD wherein it is indicated that, '<i>...the proposed Project is designed to generate renewable energy, mainly electricity by using municipal solid waste...</i>'. Also, the reference to GS4GG version 1.1 is to be updated.</p> <p>Further, the applied methodology too is inconsistently cited, whereas earlier ACM0010 is indicated, in the section A.1.1 'The Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reduction from Manure Management Systems and Municipal Solid Waste' is cited.</p> <p>Also, there is repeat text in the section too.</p>		<p>The statement has been corrected and the reference has been updated.</p> <p>The irrelevant citation of methodology and repeated text have been removed.</p>	<p>Ok closed (The PDD is corrected for the inconsistency)</p>
<p>CAR-11</p> <p>Please indicate further details about the project location.</p>	<p>A.2.1.4</p>	<p>Response 1:</p> <p>Further details regarding the project location have been added.</p>	<p>Review-1</p> <p>Ok closed (The PDD is revised to include the requested)</p>
<p>CAR-12</p> <p>Please clarify and correct the stated coordinates of the project area as the same could not be confirmed with the EPDK licence.</p>	<p>A.2.1.6</p>	<p>Response 1:</p> <p>The coordinates stated in the EPDK license and the PDD are the same. Therefore, no change has been done.</p>	<p>Review-1</p> <p>Ok closed (Location in license and PDD are the same)</p>
<p>CAR-13</p> <p>The details about the technology being implemented as part of the project including the technical description of the key equipment is to be provided. Please clarify about the anaerobic digestors too and provide the corresponding supporting documents for the equipment too.</p>	<p>A.3.1</p>	<p>Response 1:</p> <p>Technical information regarding all equipment has been provided.</p> <p>Inconsistent values have been corrected.</p>	<p>Review-1</p> <p>Ok closed (The details are added in the revised PDD)</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
Further, inconsistent value of installed capacity is cited in section A.3.			
<p>CAR-14</p> <p>Please confirm that the project activity is a greenfield project, however, is also utilizing waste from other existing farms too.</p>	A.3.2	<p>Response 1:</p> <p>It is a greenfield project because there was no biogas power plant receiving the waste from the existing farms before the project activity.</p>	<p>Review-1</p> <p>Ok closed (Clarified)</p>
<p>CAR-15</p> <p>Please clarify on the process of waste management for chicken manure and agricultural wastes existing prior to the project activity. Also, indicate the quantity of respective waste type that would likely be treated at the facility.</p>	A.3.3	<p>Response 1:</p> <p>The processes have been clarified. Quantities and approximate waste amounts have been indicated.</p> <p>Response 2:</p> <p>Baseline scenario for all kind of wastes used by the project and quantum of them added to Section A1 , A3 and Table 1 of the revised PDD document. After adding agricultural waste amount, project emissions due to transportation changed (5,276 tonne CO2 to 5,355 tonne CO2). Related revisions on transportation project emission were done in excel and PDD document accordingly.</p>	<p>Review-1</p> <p>The quantities and approximate waste amounts have not been indicated.</p> <p>Review-2</p> <p>Ok closed (The PDD has been revised to include the details)</p>
<p>CAR-16</p> <p>Please provide the list of facilities, systems and equipment in the baseline scenario, as subsequently established in section B.4 of the PDD.</p>	A.3.7	<p>Response 1:</p> <p>The list of facilities, systems and equipment has been provided.</p>	<p>Review-1</p> <p>Ok closed (The details are added in the revised PDD)</p>
<p>CAR-17</p> <p>Please clearly explain how the same types and levels of services provided by the project activity would have</p>	A.3.8	<p>Response 1:</p> <p>The required explanation has been added to section B.4.</p>	<p>Review-1</p> <p>Ok closed (The details are added in the revised PDD)</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
been provided in the baseline scenario.			
<p>CAR-18</p> <p>Please include information about the age and average lifetime of the equipment based on manufacturer's specifications and industry standards, and existing and forecast installed capacities, load factors and efficiencies.</p>	A.3.9	<p>Response 1:</p> <p>The technical details of the equipment have been added.</p>	<p>Review-1</p> <p>Ok closed (The technical details are added in the revised PDD)</p>
<p>CAR-19</p> <p>Please indicate as to how the project contributes towards SDG 7, SDG 8, SDG 12 and SDG 13.</p>	A.3.10	<p>Response 1:</p> <p>The project's contributions to SDG 7, SDG 8, SDG 12 and SDG 13 have already been explained.</p>	<p>Review-1</p> <p>Ok closed (Clarified in the PDD)</p>
<p>CAR-20</p> <p>Please indicate only the relevant and applied tools. The reference to the tool 'Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period' is inappropriate too. Further, reference to the underlying methodology consolidated to form ACM0010 is not required to be stated.</p>	B.1.2	<p>Response 1:</p> <p>Irrelevant tools and reference methodologies have been removed.</p>	<p>Review-1</p> <p>Ok closed (Corrected in the revised PDD)</p>
<p>CAR-21</p> <p>It is indicated that '<i>The average ambient temperature in the Eskişehir Province is reported to be 11.3°C by the state meteorology department</i>'. The evidence is to be submitted and the temperature is reported inconsistently in the ER sheet. Further the corresponding IPCC value for MCF is not conservatively applied. Furthermore, the location too refers to Eskişehir Province rather than Konya.</p>	B.2.5.4	<p>Response 1:</p> <p>The footnotes and information have been revised both in PDD and ER Sheet.</p> <p>Response 2:</p> <p>The footnote in section B.2 was revised for Konya region.</p>	<p>Review-1</p> <p>The temperature values are cited inconsistently in the PDD. The footnote gives indication of another region.</p> <p>Review-2</p> <p>Ok closed (The PDD has been revised to correct the temperature and ref. too)</p>
CAR-22	B.3.1	<p>Response 1:</p>	Review-1

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
<p>The table for Emissions sources included in or excluded from the project boundary is not presented following the applied methodology. Further the inclusion/exclusion of the gases too are stated incorrectly along with the justification.</p>		<p>The table has been revised according to the applied methodology.</p> <p>Response 2: Project use waste heat of gas engines to warm-up the digesters only. Other than there is no waste heat boilers or similar technologies used on site. Hence thermal energy generation and related justification/emission reduction claims were deleted in revised excel and PDD document. Moreover, thermal energy generation was deleted from "emission source table"; project emissions due to transportation and flare unit were added to project emissions in same table.</p> <p>Response 3: CO2 emissions from flare is included and transportation column is filled in revised table</p>	<p>The inclusion of emissions from thermal energy generation and associated justification is unclear. Also, the table is not completely presented as per the methodology.</p> <p>Review-2 Please correct the project boundary table following the methodology. The exclusion of project emissions from flare is not appropriate either. The included column for waste transportation too is blank.</p> <p>Review-3 Ok closed (Table revised in the PDD)</p>
<p>CAR-23 Please present a flow diagram of the project boundary, physically delineating the project activity.</p>	<p>B.3.2</p>	<p>Response 1: A project boundary diagram has been presented.</p>	<p>Review-1 Ok closed (flow diagram included in the revised PDD)</p>
<p>CAR-24 Please include a flow diagram also depicting the equipment, systems and the emission sources and GHGs included in the project boundary and the data and parameters to be monitored.</p>	<p>B.3.3</p>	<p>Response 1: This flow diagram has already been included in section A.3.</p>	<p>Review-1 Ok closed (flow diagram included in the revised PDD)</p>
<p>CAR-25 Please provide the documentary evidence for the designated farms and facilities wherefrom the organic waste is collected, also confirming the road itineraries.</p>	<p>B.3.9.5</p>	<p>Response 1: The evidence has been provided.</p>	<p>Review-1 Ok closed (Evidence submitted)</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
<p>CAR-26</p> <p>Please provide a clear diagrammatic representation of the project scenario including the waste treatment steps as well as final disposal; use of methane and also the auxiliary energy to run the project treatment steps; and the fraction of volatile solids degraded within the project boundary in the pre-project situation before disposal.</p>	<p>B.3.11</p>	<p>Response 1:</p> <p>A diagram has been added.</p>	<p>Review-1</p> <p>Ok closed (flow diagram included in the revised PDD)</p>
<p>CAR-27</p> <p>Please also include the co-ordinates of the farms wherefrom the organic waste is being sourced.</p>	<p>B.3.12.1</p>	<p>Response 1:</p> <p>Coordinates of the farms have been provided.</p> <p>Response 2:</p> <p>For the agricultural waste transportation, waste transported from the farmlands located in two region which are Yenibahçe and Çomaklı. These two regions located in Meram District of Konya Province and so close to the project site. Yenibahçe region is 4.6 km away from the project site and Çomaklı region is 5.6 km. Coordinates of the regions were added to revised PDD section B2 and B3.</p>	<p>Review-1</p> <p>The other agricultural waste types are not cited yet only cattle and poultry farms are included.</p> <p>Review-2</p> <p>Ok closed (The PDD has been revised to include the details)</p>
<p>CAR-28</p> <p>Please provide the road distances of the itineraries between the farms from which waste is sourced and the manure central treatment plant using information from official sources.</p>	<p>B.3.12.2</p>	<p>Response 1:</p> <p>Road distances and itineraries have been provided.</p>	<p>Review-1</p> <p>Ok closed (Distances included in the revised PDD)</p>
<p>CAR-29</p>	<p>B.4.2</p>	<p>Response 1:</p>	<p>Review-1</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
<p>As per the applied methodology, the baseline scenario and demonstration of additionality is to be performed using the “Combined tool to identify the baseline scenario and demonstrate additionality”. As per the applied methodology, baseline scenario should be identified from the perspective of the owner of waste treatment plant, as well as from the perspective of the multiple livestock farms owners. Please clarify and correct the presentation in section B.4 of the PDD accordingly with reference to existing facilities or greenfield facilities.</p>		<p>Section B.4. has been revised as required.</p> <p>Response 2: Correct temperature data info and related link is added as footnote to Section B2 and B5.</p>	<p>Please clarify and correct at appropriate place the temperature of the project site.</p> <p>Review-2 Ok closed (The PDD has been revised to correct the temperature and ref. too)</p>
<p>CAR-30 The relevant national and sectoral policies are to be referred to identify the baseline scenario.</p>	<p>B.4.4</p>	<p>Response 1: The relevant national and sectoral policies have been referred.</p> <p>Response 2: “Waste management regulation” dates as 2015 added to list in revised PDD under heading “Sub-step 1b.”</p>	<p>Review-1 The relevant national and sectoral policies in context of waste management are not indicated.</p> <p>Review-2 Ok closed (The PDD has been revised)</p>
<p>CAR-31 The scenarios to be presented taking into account the existing and greenfield facility are not presented in accordance with the methodology.</p>	<p>B.4.8</p>	<p>Response 1: The scenarios have been added.</p> <p>Response 2: Alternative scenarios for the manure management added to Section B.5 below the alternatives for electricity and heat generation. In addition, to remember as realized from the answer of other</p>	<p>Review-1 In applying Step 1 of the tool, baseline alternatives for managing the manure, shall take into consideration, inter alia, the complete set of existing/possible manure management systems listed in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Volume 4, Chapter 10, Table 10.17)</p>

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Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
		CARs, heat generation and corresponding emissions reduction is not claim of the project and it is removed from the mentioned parts.	Review-2 Ok closed (The PDD has been revised to include the baseline alternatives as per the methodology)
<p>CAR-32</p> <p>The alternatives for electricity and heat are presented in accordance with the methodology in the PDD. In addition to the alternative baseline scenarios to be identified for managing the manure, alternative scenarios for the use of gas generated from an anaerobic digester (biogas) shall also be identified if this is an aspect of the project activity.</p>	B.4.22	<p>Response 1:</p> <p>The alternatives for heat and electricity have been added. Also, alternative baseline scenario for managing manure has been added.</p> <p>Response 2:</p> <p>Please see the response of CAR-31</p>	<p>Review-1</p> <p>The alternatives for waste management are missing in the PDD.</p> <p>Review-2</p> <p>Ok closed (The PDD has been revised to include the baseline alternatives as per the methodology)</p>
<p>CAR-33</p> <p>The alternatives for heat are stated. Further, it is also indicated that <i>'Even though the heat generated in the cogeneration unit will be used within the facility itself, replacing the natural gas combusted in the baseline scenario, the project does not accrue emission reduction credits from the heat component'</i>.</p> <p>The PDD is inconsistent with the ER sheet wherein emission reductions from heat are considered and also that the heat part appears to be more of an auxiliary consumption as part of the project activity.</p>	B.4.23	<p>Response 1:</p> <p>The related parts have been revised.</p> <p>Response 2:</p> <p>Heat generation and related emission reduction claims removed from the PDD since it is not relevant with this Project and written mistakenly. Hence there is no need to revisions on heat alternatives. Moreover, reference 1st CP is removed from the document.</p>	<p>Review-1</p> <p>Please revisit and correct the presentation regarding heat alternatives. Also, reference to 1st CP too is to be clarified and corrected.</p> <p>Review-2</p> <p>Ok closed (The PDD has been revised to include the baseline alternatives as per the methodology and incorrect reference removed)</p>
<p>CAR-34</p> <p>The section indicates that the project is not retroactive and design change reviews were already finalized. Please clarify and correct accordingly.</p>	B.5.1.1	<p>Response 1:</p> <p>The project has been revised as retroactive.</p>	<p>Review-1</p> <p>Ok closed (Corrected)</p>

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<p>CAR-35</p> <p>The input values used in the investment analysis are to be valid, consistent, and applicable at the time of the investment decision. Please provide the basis for the values considered in the investment analysis. Also, the benchmark considered pertains to a report from 2014, please provide the justification for the consideration of the same too.</p>	<p>B.5.1.6</p>	<p>Response 1: Benchmark value has been revised.</p> <p>Response 2: Footnote 46 is revised. Moreover, EPC contract (capex) and special funding (bank loan agreement) are to be provided within this document. As per mentioned documents, IRR calculation revised (10.42 %) and revised results updated on PDD.</p> <p>Response 3: It is impossible for anyone to plan the price of electricity in the market anywhere in the world 10 years from now. this can only be expressed with assumptions. The assumption can be optimistic or pessimistic. In the IRR document of this project, an optimistic assumption is used and the electricity price 10 years later is expressed as today's warranty tariff price. Otherwise, it is obvious that the price 10 years from now will probably be lower than today's price. In that case, the financial additionality value of the project will be stronger than the current claim of being additional in any case. Therefore, there is no need to provide an additional proof/reference or latter for the future price used in calculation. As indicated, a conservative approach has already been taken into account.</p> <p>On the other hand, and additional column added to "Calculation and comparison of financial indicators" tablet o show the references instead footnote</p>	<p>Review-1 Provide the basis of the input values considered in the investment analysis. Further, IRR sheet cannot be the reference as indicated in footnote 46.</p> <p>Review-2 Please add another column to the table citing the source document for the value. Further, the feed in tariff and the market price after 10th year are to be stated separately. The basis of the latter is also to be provided.</p> <p>Review-3 Ok closed (Clarified)</p>

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		representation	
<p>CAR-36</p> <p>A 19-year horizon has been selected to evaluate the project, but the project owners do not justify the investment horizon in the PDD.</p>	B.5.1.33	<p>Response 1:</p> <p>License of biogas plants will be renewed at the end of license period. License amendments will be made in the future periods in order for the project to continue its operation. This is a routine case for these types of projects in Turkey. Please remember the Aksaray Biogas Project which has the same situation.</p>	<p>Review-1</p> <p>Ok closed (Clarified)</p>
<p>CAR-37</p> <p>Sensitivity analysis is provided in the PDD. However, it is noted that the project crosses the benchmark in the sensitivity analysis for 10% change. As the project is already commissioned, please provide further justification and also submit documentary evidence to cross-check the investment analysis numbers in particular the investment cost and the electricity tariff.</p>	B.5.1.50	<p>Response 1:</p> <p>The value for the benchmark has been revised.</p>	<p>Review-1</p> <p>Ok closed (Corrected)</p>
<p>CAR-38</p> <p>Please clearly depict the output from the application of the steps in the common practice tool in the PDD including values for Nall and Ndiff. The step 3 is not correctly applied.</p>	B.5.1.63	<p>Response 1:</p> <p>There is no problem with the step 3, but some revisions have been made in the section.</p> <p>Response 2:</p> <p>-</p>	<p>Review-1</p> <p>Please correct the section as it indicates wind energy projects. Also, the reference to the underlying document is to be included. Further, the decimal and comma representation is to be corrected.</p> <p>Review-2</p> <p>Ok closed (The PDD has been revised)</p>

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<p>CAR-39</p> <p>Please clarify and correct on the following points:</p> <ul style="list-style-type: none"> - The average number of animals and respective types considered in the calculation of baseline CH4 emissions are to be clarified; - Also clarify and the indicate the relevant equations following the option as per the methodology as has been considered for Annual volatile solid excretions for livestock LT (VS_{LT}) and annual average number of animals of type LT (N_{LT}); - The consideration of baseline emissions from heat are not appropriate and inconsistent too. 	B.6.1.1.1	<p>Response 1:</p> <p>Response 2:</p> <p>Methodological choice added under B.6.1. Moreover the sentence covers the term “municipal waste” revised as animal manure and agricultural waste.</p> <p>Response 3:</p> <p>Methodological choices/approaches added for each SDG in related section.</p>	<p>Review-1</p> <p>Please clarify and correct the statement in section B.6.1 under SDG 12 as ‘By implementing anaerobic digesters municipal solid waste will be digested whilst capturing and utilizing GHGs from them...’.</p> <p>Further, the methodological choices are not cited in section B.6.1.</p> <p>Review-2</p> <p>The methodological choices are not found in section B.6.1.</p> <p>Review-3</p> <p>Ok Closed (The methodological choices are presented later in section B.6.3.)</p>
<p>CAR-40</p> <p>Please clarify and correct regarding the project emissions from manure transportation as per the “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion”.</p>	B.6.1.1.2	<p>Response 1:</p> <p>Project emissions from manure transportation have been calculated.</p> <p>Response 2:</p> <p>Mentioned sentence is deleted. Not relevant to this project.</p>	<p>Review-1</p> <p>Reference to 1st CP is to be clarified under the project emissions section.</p> <p>Review-2</p> <p>Ok closed (The PDD has been corrected)</p>
<p>CAR-41</p> <p>The Annual Average ambient temperature at project site indicated in the section B.6.2 is inconsistent with other</p>	B.6.2.1	<p>Response 1:</p> <p>Temperature value has been revised. Annual average temperature of Konya Province is 11.7 celsius</p>	<p>Review-1</p> <p>The temperature value and reference are stated inconsistently across the document.</p>

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<p>parts of the PDD and also the corresponding MCF too is not correctly applied. Further, the comment in the methodology as 'A conservativeness factor should be applied by multiplying MCF values (estimated as per above bullet) with a value of 0.94, to account for the 20 per cent uncertainty in the MCF values as reported by IPCC 2006' is to be applied too. Please clarify and correct accordingly.</p> <p>Furthermore, while stating the values the use of comma and decimals is to be noted and applied correctly.</p> <p>Also, other parameters as per the applied tools too are missing such as flare efficiency among others.</p>		<p>degrees and corresponding MCF value is 70%. The use of comma and decimals are applied correctly</p> <p>Response 2: Correct temperature data info and related link is added as footnote to Section B2 and B5. Comma and decimal notations were checked.</p>	<p>The comma and decimal notation are yet not corrected across the PDD.</p> <p>Review-2 Ok closed (The PDD has been corrected)</p>
<p>CAR-42</p> <p>The steps taken and equations applied to calculate the baseline, project, leakage and net outcomes and comply with the requirements of the methodology including applicable tool(s) has not been presented in section B.6.3 of the PDD. Further, the basis of arriving at the emission reductions from heat are to be clarified along with the basis of the efficiency of heat generation equipment.</p>	<p>B.6.3.1</p>	<p>Response 1: All steps and equations applied have been added to section B.6.3.</p> <p>Response 2: Related sentence/explanation was deleted. Previous VS LT value was changed in revised PDD with default and regional IPCC values (for both cattle and chicken manure). Hence related parameter references given in "B.6.2 Data and parameters fixed ex ante" were revised. Accordingly the sentence mentioned in Review 1 was deleted in revised PDD Section B.6.3. In addition baseline emissions due to heat generation removed from the calculations (excel document) and related PDD sections.</p>	<p>Review-1</p> <p>Please clarify about the statement 'For the calculation of VSLT,y Option 1 is chosen from applied methodology which refers to the country specific data. There are country specific data on annual manure amount of per head for both cattle and poultry. Moreover, project has PIF report which provides the volatile solid ratio of manure for both cattle and manure.'</p> <p>Please submit the indicated PIF report.</p> <p>Further, it is indicated that baseline emissions associated with heat generation are not considered though the numbers thereafter still include some value in baseline emissions as 1,032.</p> <p>Review-2</p>

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		<p>Response 3:</p> <p>For VSlt, selected option is added to both fix-ante parameter tables and in B.6.3 within the explanation of BEch4 calculation (page 66). Also the number revised as 1,642.5 (in fact it is already shown in excel). ER value and spelling corrections are done.</p>	<p>The ER value and spelling errors in the PDD are to be corrected. Further, the VSLT,y value is not to be rounded up (as done for cattle). The options selected as per the methodology are to be presented in section B.6.1</p> <p>Review-3 Ok closed (Clarified and corrected in the revised PDD)</p>
<p>CAR-43</p> <p>The options for the calculation of project emissions are clearly indicated. However, the emissions related to transportation has not been provided. Further, provide the documentary evidence that for the project average return distance between the origin and the destination.</p>	<p>B.6.3.16</p>	<p>Response 1:</p> <p>Alternatives have been indicated and documentary evidence has been provided.</p>	<p>Review-1 Ok closed (Transportation emissions are conservatively presented).</p>
<p>CAR-44</p> <p>The reference to equation 31 in the methodology has been indicated. However, please clarify as to how it is ensured that emissions due to agricultural waste is not taken into account for baseline emission calculation.</p>	<p>B.6.3.18</p>	<p>Response 1:</p> <p>The applied methodology has been changed and the related parts have been revised.</p> <p>Response 2:</p> <p>As per applied methodology: "In case of co-digestion, for one or more sources of substrates, it cannot be demonstrated that the organic matter would otherwise have been left to decay anaerobically, baseline emissions related to</p>	<p>Review-1 It is not clear as to how agricultural waste would be accounted.</p> <p>Review-2 Ok closed (Clarified and the PDD has been corrected)</p>

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		<p>such organic matter shall be accounted for as zero, whereas project emissions shall be calculated according to the procedures presented in this methodology for all co-digested substrates”</p> <p>Under the baseline emission calculations agricultural wastes is not taken into account as per methodological criteria; however, project emissions due to these wastes are taken into consideration for the project such as emissions caused due transportation in revised excel spreadsheet and PDD document. The reference sentence from the methodology given above was also added to Section A1 of revised PDD.</p>	
<p>CAR-45</p> <p>The values are to be updated in section B.6.4 based on previous comments.</p> <p>Further the summary of ex-ante estimates is to be provided for all the SDGs apart from just SDG 13.</p>	<p>B.6.4.1</p>	<p>Response 1: The section has been revised.</p> <p>Response 2: The tabular presentation with numeric data is added to section B6.</p> <p>Response 3: Added to end of B.6.4</p>	<p>Review-1 The tabular presentation of the other SDGs should be included.</p> <p>Review-2 The tabular presentation is not seen in the PDD section B.6.4.</p> <p>Review-3 Ok closed (The consolidated tabular presentation is put in the PDD section B.6.4.)</p>

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<p>CAR-46</p> <p>The relevant data/parameters should be included following the order in the methodology and applied tools. Also, the format as per the PDD template is to be correctly applied.</p>	<p>B.7.1.2</p>	<p>Response 1: All relevant parameters have been added.</p> <p>Response 2: As per methodology and related Tools, Parameters added to PDD listed below;</p> <p>FRf,m: Total mass of freight transported in freight transportation activity f in monitoring period m. N: Total number of farms Qdm: Mass of manure disposed outside project boundary Other Pollutants: Proper management of waste oil</p> <p>“FRf,m”, “Qdm” and “Other Pollutants” are the monitoring parameters directly linked to Principle 4.3.5 Hazardous and Non-Hazardous Waste and SDG 12. Hence the monitoring tables of these parameters given under the heading of Principle 4.35 and SDG 12 in revised PDD.</p> <p>Response 3: “land application” is not the same as using digestate as a fertilizer in farmlands. As it is clearly stated in definition of the parameter “Qdm”->“Mass of manure disposed outside project boundary” liquid and solid digestate which are the outputs of digesters are distinguished from the manure (which fed-up to digesters) in terminology.</p>	<p>Review-1 All monitoring parameters as per the methodology and associated tools and safeguarding principles are not included yet.</p> <p>Review-2 Please clarify and correct the statement ‘<i>No manure disposal to outside the project boundary</i>’ as stated in context of parameter Qdm, noting that there is land application of treated manure. Further, corresponding statement in section B.6.3 is also to be visited indicating ‘<i>...the proposed project activity does not involve land application of the treated manure or composting...</i>’</p> <p>Review-3 Ok closed (Clarified)</p>

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		<p>The related definition has been revised as follows to avoid conceptual confusion.</p> <p><i>“Mass of manure (manure taken from animal farms to fed-up the anaerobic digesters) disposed outside project boundary”</i></p> <p>Moreover, the statement in B.6.3 is revised in PDD as below.</p> <p><i>“As noted earlier, since the proposed project activity does not involve composting, LComp,y shall be accounted as zero. Moreover, the solid and liquid digestate used as fertilizer in nearby agricultural land as free and this materials are not used/stored in any other conditions on land. Hence, LEPJ,N2O,y, LEPJ,CH4,y shall be zero. Before the project activity farm owners bought the inorganic fertilizer from related market which is costly.”</i></p>	
<p>CAR-47</p> <p>The row of value(s) applied is missing in the tables presented in section B.7.</p>	<p>B.7.1.7</p>	<p>Response 1:</p> <p>The rows have been added.</p>	<p>Review-1</p> <p>Ok closed (Tables updated).</p>
<p>CAR-48</p> <p>The description of calibration procedures for the monitoring equipment are to be included, in particular for the electricity generation and biogas flow and methane content therein.</p>	<p>B.7.1.10</p>	<p>Response 1:</p> <p>The calibration procedure has already been included.</p>	<p>Review-1</p> <p>Ok closed (Calibration procedure is included).</p>

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<p>CAR-49</p> <p>The accuracy level of the measurement method is to be included, in particular for the electricity generation and biogas flow and methane content therein.</p>	<p>B.7.1.11</p>	<p>Response 1:</p> <p>Accuracy class has been stated.</p>	<p>Review-1</p> <p>Ok closed (Accuracy class of meters is included).</p>
<p>CAR-50</p> <p>The monitoring plan does not include all the relevant tools and the associated monitoring parameters. As per the methodology, the emission reductions achieved by the project activity from the anaerobic digester due to the collection and destruction of biogas shall be determined ex post through direct measurement of the amount of biogas fuelled, flared or gainfully used.</p> <p>Further, the number of employment is not stated.</p> <p>Furthermore, the contribution to SDG12 in terms of waste managed is not indicated as a monitoring parameter.</p>	<p>B.7.1.17</p>	<p>Response 1:</p> <p>All parameters and tools have been added.</p> <p>Number of employment has been stated.</p> <p>The contribution to SDG12 has been added.</p> <p>Response 2:</p> <p>SO2 and NOx calculations revised in ER Excel SpreadSheet and revised PDD with 2020 data which is the latest published national inventory data consisting SO2 and NOx emissions.</p> <p>For the previously missing monitoring parameters please see the response of CAR-46</p> <p>Response 3:</p> <p>This issue was covered in same way as already represented in many certified/issued projects and this process has not caused any monitoring confusion or difficulty to date. Even standard had no request such that till today. Of course, SO2 and NOx values are monitoring parameters since the emission reduction values will change due to yearly electricity generation of the project and related emission factors given in the same table as usual method.</p>	<p>Review-1</p> <p>All monitoring parameters as per the methodology and associated tools and safeguarding principles are not included yet. Further, for SO2 and NOx the basis of 2017 and 2018 data are to be clarified and corrected (updated).</p> <p>Review-2</p> <p>Please clarify and include the emission factor of SO2 and NOx in section B.6 if these are fixed ex-ante or rather would be monitored ex-post.</p> <p>Review-3</p> <p>Ok closed (Clarified)</p>

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		However, we add the relevant emission factors as the fix ante value to the section where the fix ante tables are located, so that the issue can be resolved quickly.	
<p>CAR-51</p> <p>All the relevant monitoring parameters as per the methodology and the associate tools have not been included in the section for e.g., measurement of the biogas flow, methane content, operation of engines, operation of flare etc.</p> <p>Further, it is unclear as to how the baseline emissions from the co-digestion of the agricultural waste would be discounted. As per the methodology, in case of co-digestion, for one or more sources of substrates, it cannot be demonstrated that the organic matter would otherwise have been left to decay anaerobically, baseline emissions related to such organic matter shall be accounted for as zero, whereas project emissions shall be calculated according to the procedures presented in this methodology for all co-digested substrates.</p>	B.7.1.18	<p>Response 1: All parameters have been indicated.</p> <p>Wastes other than manure has not been included in the emission reduction calculations.</p> <p>Response 2: Please see the response of CAR-46</p> <p>Response 3: Additional parameter table added for agricultural waste amount monitoring.</p> <p>For another issue:</p> <p>Baseline emissions have two contributors as known. The biggest contributor is baseline methane emissions, and this emission category is calculated by using animal numbers. Hence agricultural wastes do not cause a calculation error or more here as it is not one of the parameters.</p> <p>The second contributor is electricity generated and supplied to national grid. To subtract the biogas used for elecetricity generation which sourced by</p>	<p>Review-1 All monitoring parameters as per the methodology and associated tools and safeguarding principles are not included yet.</p> <p>Review-2 Please clarify and include as to how the measured biogas generation ex-post would be discounted for the agricultural waste. Further, the agricultural waste quantity is also to be monitored separately rather than being clubbed within the parameter 'FRf,m'.</p> <p>Review-3 Ok closed (Clarified)</p>

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		<p>agricultural waste the pathway could be followed described below and which is also added to PDD.</p> <p>Related explanations is added to PDD under the heading “Baseline emissions associated with electricity generation (BEEC,y)”</p>	
<p>CAR-52</p> <p>Section B.7.3. does not provide much detail regarding the biogas measurement and associated data management.</p>	<p>B.7.3.1</p>	<p>Response 1:</p> <p>The required information has been added to Section B.7.3</p> <p>Response 2:</p> <p>Further details on biogas monitoring and handling of digestate is added to Section 7.3.1</p>	<p>Review-1</p> <p>Further details regarding the biogas monitoring and handling of digestate is not provided.</p> <p>Review-2</p> <p>Ok closed (Clarified and the PDD has been revised)</p>
<p>CAR-53</p> <p>The responsibilities and institutional arrangements for data collection and archiving in context of biogas is to be indicated.</p>	<p>B.7.3.2</p>	<p>Response 1:</p> <p>The required information has been added to Section B.7.3.</p> <p>Response 2:</p> <p>Further details on biogas monitoring and handling of digestate is added to Section 7.3.1</p>	<p>Review-1</p> <p>Further details regarding the biogas monitoring and handling of digestate is not provided.</p> <p>Review-2</p> <p>Ok closed (Clarified and the PDD has been revised)</p>
<p>CAR-54</p> <p>It is indicated that ‘<i>The generation license by EMRA dated 04/10/2018 is valid for 10 years. The operational lifetime of the project is 10 years (until 04/0/2028).</i>’</p>	<p>C.1.2.1</p>	<p>Response 1:</p> <p>The operational lifetime has been corrected and an explanation regarding how the operational lifetime is linked to the generation license has been added.</p>	<p>Review-1</p> <p>Ok closed (Clarified)</p>

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Please correct the operational lifetime given that the project start date is after the grant of licence and also how the lifetime is linked to the license.			
<p>CAR-55</p> <p>The safeguarding principles that will be monitored have to be summarized including the mitigation measures added to the monitoring plan.</p>	D.1.1	<p>Response 1:</p> <p>The safeguarding principles that will be monitored and the mitigation measures have already been summarized. SG Principle 4.1.2 Climate has been added to the table in Section D1.</p> <p>Response 2:</p> <p>Please see the response of CAR-46</p>	<p>Review-1</p> <p>No parameter in context of safeguarding principles is found in section B.7.</p> <p>Review-2</p> <p>Ok closed (Clarified and the PDD has been revised)</p>
<p>CAR-56</p> <p>It is indicated in section E about a 2 step GS4GG consultation. However, noting that the stakeholder consultation was carried out in 2017 under GS version 2.2. Please clarify and correct accordingly. Also noting that the project has had its LSC review done by GS under 2.2 Dec 2019, however, the validation has not been completed within 2 years from listing.</p>	E.1.1	<p>Response 1:</p> <p>Please see the response of CAR-4</p>	<p>Review-1</p> <p>Ok closed (Clarified)</p>
<p>CAR-57</p> <p>The relevant methods and all details of chosen methods for receiving continuous input/grievance mechanism have not been provided in the related tabular format.</p>	E.2.1	<p>Response 1:</p> <p>The details have been provided.</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit with interactions with local stakeholders)</p>
<p>CL-1</p> <p>Please submit the LSC meeting dated 19/01/2016, EIA approval dated 13/12/2016 among other documents including the GS review documents.</p>	A.1.4	<p>Response 1:</p> <p>The documents have been submitted.</p>	<p>Review-1</p> <p>Ok closed (The documents are submitted)</p>

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<p>CL-2</p> <p>It is indicated that all legal rights of the Meram Biogas Power Plant were given to Toros Meram Yenilenebilir Enerji Üretim A.Ş. as per the generation license given by EMRA (Energy Market Regulatory Authority) on 04/10/2018.</p> <p>Please submit the electricity generation licence issued.</p>	A.1.2.1	<p>Response 1:</p> <p>The generation license has been submitted.</p>	<p>Review-1</p> <p>Ok closed (The generation license has been submitted)</p>
<p>CL-3</p> <p>It is indicated that no public funding is used for the project activity. Please submit the documentary evidence for the project funding.</p>	A.5.1	<p>Response 1:</p> <p>The document is to be provided.</p> <p>Response 2:</p> <p>Project use special financing (not public financing) and evidence document of special financing is shared with this document.</p>	<p>Review-1</p> <p>No document provided.</p> <p>Review-2</p> <p>Ok closed (Clarified and evidence submitted)</p>
<p>CL-4</p> <p>It is indicated that <i>“The project activity aims to replace the existing anaerobic treatment systems (solid storage for manure collection followed by uncovered anaerobic lagoon for manure management) in the poultry or cattle farms by a single AWMS. This shall result in lesser GHG emissions by avoidance of methane release from the lagoons.”</i></p> <p>The associated supporting documentary evidence are to be provided.</p>	B.2.4.1	<p>Response 1:</p> <p>Please see the waste collection agreements with farmers</p>	<p>Review-1</p> <p>Ok closed (The agreements with the farms are submitted)</p>
<p>CL-5</p> <p>It has been indicated that <i>‘The farms in the project boundary contain poultry and cattle populations housed in cages, i.e., in confined conditions. This is confirmed in</i></p>	B.2.5.1	<p>Response 1:</p> <p>Please check the project boundary. Project owner does not have any responsibility on</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance</p>

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<p><i>site visit</i>.</p> <p>The management of livestock populations are to follow Turkish Law and Regulations with the section "Regulation of Establishment, Execution and Supervision of Livestock Facilities". Please provide documentary evidence that the farms are in compliance with the regulations and also submit the agreement(s) with the farms and Toros.</p>		<p>checking the farm operations (which are not belonged to this project in laws) if they are in line with national laws and regulations or not. The only evidence could be the lagoon photo shared by site and which is to be provided with this document. Related lagoon photo is the evidence that farms do not release manure on natural bodies.</p> <p>Agreements are provided with this document.</p>	<p>with national regulations)</p>
<p>CL-6</p> <p>Please provide documentary evidence to confirm that manure is not discharged into natural water resources from the farms.</p>	<p>B.2.5.2</p>	<p>Response 1:</p> <p>Lagoon photos from the farms are shared DOE with this document which is used for manure collection/storage. There is no discharge to water sources from the farms. According to the 4th article of the law on this subject, it is forbidden to give all types of waste, including animal waste, to the receiving environment without treatment. Therefore, it is not possible for the application in question to take place in the baseline. In this context, waste/farm owners have no choice but to store the accumulated animal waste in lagoons. As can be remembered from other similar studies in Turkey, this is the case in all regions</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance with national regulations)</p>
<p>CL-7</p> <p>Please provide documentary evidence to confirm that in the baseline scenario cattle manure generated at farms is stored generally in tanks in anaerobic conditions. Tanks' depths, when applicable, are more than 1 m.</p>	<p>B.2.5.3</p>	<p>Response 1:</p> <p>A lagoon photo is provided as an example with this document.</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit)</p>

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<p>CL-8</p> <p>Please provide documentary evidence to confirm that in the baseline scenario the retention time of manure waste is greater than one month in the baseline scenario.</p>	<p>B.2.5.5</p>	<p>Response 1:</p> <p>According to the 4th article of the law⁴ on this subject, it is forbidden to give all types of waste, including animal waste, to the receiving environment without treatment. Therefore, it is not possible for the application in question to take place in the baseline. In this context, waste/farm owners have no choice but to store the accumulated animal waste in lagoons. As can be remembered from other similar studies in Turkey, this is the case in all regions. As such, the manure is kept in lagoons for long periods of time. One of the photographic evidence of lagoons at the site is shared with this document.</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance with national regulations)</p>
<p>CL-9</p> <p>Please provide documentary evidence to confirm that in the project case there is no leakage of manure waste into ground water, e.g. the lagoon should have a non-permeable layer at the lagoon bottom</p>	<p>B.2.5.6</p>	<p>Response 1:</p> <p>The facility floors are insulated with concrete. Liquid wastes coming to the facility fed directly to the balancing pool and digesters. All existing pools (balancing and digesters) are leak proof (Finalized EIA Report of the Project, pages 137, 143, 145-with schematic representation). Hence there is no possibility for leakage to groundwater.</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance with national regulations)</p>

⁴ <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=7221&MevzuatTur=7&MevzuatTertip=5>

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<p>CL-10</p> <p>Please provide documentary evidence to confirm that manure is not stored more than 24 hours.</p>	<p>B.3.11.1</p>	<p>Response 1:</p> <p>Manure feeding to digesters without waiting is one of the primary operational objectives of the project. Otherwise, the owner of the project loses its biogas and therefore electricity production capacity. Therefore, it is not possible for the project owner to keep the wastes accepted to the facility for more than 24 hours. The signed statement of the official working in the field on this subject is shared with this document.</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance with national regulations)</p>
<p>CL-11</p> <p>Please provide documentary evidence for the following:</p> <ul style="list-style-type: none"> - the common practice for the farms and facilities is uncovered anaerobic lagoons/ponds; - the lagoon systems of common practice and lagoons depth; and - the retention time of the manure in the stated lagoon systems above is greater than 1 month long. 	<p>B.4.20</p>	<p>Response 1:</p> <p>Please see the response of CL-10</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance with national regulations)</p>
<p>CL-12</p> <p>The start date is cited as 11/12/2019 corresponding to the construction agreement. Please submit the corresponding document too.</p>	<p>C.1.1.1</p>	<p>Response 1:</p> <p>The construction is carried out by the project owner therefore, there is not a separate agreement but in the provided Certificate of permission for use of building, the date of the agreement with contractor and the site manager is stated as 28/04/2021. Date of the construction agreement has been revised as 28/04/2021.</p>	<p>Review-1</p> <p>Ok closed (Confirmed from Certificate of permission for use of building)</p>

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<p>CL-13</p> <p>Please submit the preliminary GS review and LSC review documents.</p>	<p>F.1.1</p>	<p>Response 1:</p> <p>The documents have been submitted.</p>	<p>Review-1</p> <p>Ok closed (GS review documents are submitted)</p>
<p>CL-14</p> <p>Please provide evidence to confirm the following:</p> <ul style="list-style-type: none"> - working agreements with the individual workers. - how the project avoids community exposure to increased health risks and does not adversely affect the health of the workers and the community. - Please provide evidence to demonstrate that the project concept and design cover the overall societal context from a gender perspective 	<p>4</p>	<p>Response 1:</p> <p>-Project will provide social security documents during the monitoring terms. There is no such document right now. This is a document that has not been submitted for any project before and related with personal information protection law. Hence it is not possible to provide for this stage. As it is said above, social security list will provide in monitoring terms as in all other projects.</p> <p>- This issue covered in EIA reports of the Project (Approved EIA Report; 185-186-187)</p> <p>- This issue covered in EIA reports of the Project (Approved EIA Report; 188). Moreover, Turkey has ratified ILO convention 100, 111, 122 and 142, which provides gender equality and promotes women's employment⁵. It also shows parallelism with national strategies prepared for</p>	<p>Review-1</p> <p>Ok closed (As checked and confirmed during site visit and also for compliance with national regulations)</p>

⁵ <http://www.ilo.org/ankara/areas-of-work/equality-discrimination/lang--tr/index.htm>

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		women employment by creating opportunities for all.	
<p>CAR-58</p> <p>In Sections A.4, B.6.1, D.1, Appendix-1 in the PDD, the annual expected emission reduction values are indicated as 312,838 tCO₂e. However, in the Excel sheet and the other sections in the PDD, the annual expected emission reduction value is indicated as 110,277 tCO₂e. Please check and correct the emission reduction values in the mentioned sections.</p>	ITR	<p>Response:</p> <p>The annual emission reduction value is 110,277 and ex-calculation value is revised with that value in relevant sections.</p>	<p>Review-1:</p> <p>Ok Closed (The annual emission reductions values were revised in the relevant sections.)</p>
<p>CAR-59</p> <p>In Section A.1 in the PDD, the organic flow is indicated as 245,645 tonnes. However, in Section A.3, the value is indicated as 245.645 tonne. Please check and correct the value in Section A.3. Also, please revise the values of tonne/year of the waste sources corresponding to the percentages in Section A.1 and A.3 (e.g. 47.5% of 245,645 tonne is not 116,800 tonne/year).</p>	ITR	<p>Response:</p> <p>The value in A3 revised as 243,645 tonne/year.</p> <p>On the other hand, 116,800 is the %47,5 of 245,645. Please check your calculations</p>	<p>Review-1:</p> <p>Ok Closed (The organic flow was revised in Section A.3 accordingly.)</p>
<p>CAR-60</p> <p>In Sub-step 2b in Section B.5 in the PDD, the annual electricity generation is indicated as 42,208 GWh. However, this value is inconsistent with the value which is indicated in the generation license and in the other sections in the PDD. Please revise this value in Section B.5.</p>	ITR	<p>Response:</p> <p>The value is revised as 42.028 GWh as per licence. Other relevant sections checked on that issue.</p>	<p>Review-1:</p> <p>Ok Closed (The annual electricity generation value was revised in Section B.5.)</p>
<p>CAR-61</p> <p>On the cover page in the PDD, the project cycle is indicated as "Retroactive". However, in Section B.5.1, it</p>	ITR	<p>Response:</p> <p>Project is not retroactive. Hence the info in cover page is revised as "regular"</p>	<p>Review-1:</p> <p>Ok Closed (The project cycle was revised on the cover page.)</p>

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is stated that the project is not retroactive. Please provide the consistent information on this subject throughout the PDD.			
<p>CAR-62</p> <p>The "Value(s) Applied" row of "B_{0,LT} for Poultry manure" parameter is indicated as "0.36". However, in "Cell D9" of the "Baseline Emission" spreadsheet, the value is indicated as "0.39". Please check and correct the contradiction.</p>	ITR	<p>Response:</p> <p>The value is revised as 0.39 in PDD. Also the reference table in IPCC document is revised (Table 10.16) in excel document (baseline emissions "reference" column")</p>	<p>Review-1:</p> <p>Ok Closed (The value was revised in the PDD accordingly.)</p>
<p>CAR-63</p> <p>In Section B.6.2, the parameters of "B_{0,LT} for poultry manure", "T" and "MCF_i" are indicated as the ex-ante parameters. However, these parameters are the monitoring parameters as per the applied methodology. Please indicate these parameters in the relevant section in the PDD.</p>	ITR	<p>Response:</p> <p>Related parameters moved to section B.7.1 in revised PDD.</p>	<p>Review-1:</p> <p>Ok Closed (The mentioned parameters were moved to the relevant section.)</p>
<p>CAR-64</p> <p>The date of "LSC Meeting" is indicated as "19/01/2016" in Table 1 in Section A.1. However, the date is indicated as "02/08/2017" in Section E.1. Please check and correct the contradiction.</p>	ITR	<p>Response:</p> <p>The correct date is 02/08/2017. Hence, the date in Section A1 (Table 1) is revised.</p>	<p>Review-1:</p> <p>Ok Closed (The date of the LSC meeting was revised in Section A.1 accordingly.)</p>
<p>CAR-65</p> <p>On page 10 (in Section A.1.1) in the PDD, the latest version of "Gold Standard for the Global Goals (GS4GG) Principles & Requirements" is not used. Please update the version of this document.</p>	ITR	<p>Response:</p> <p>The version and access link were revised.</p>	<p>Review-1:</p> <p>Ok Closed (The version of the document was revised in Section A.1.1.)</p>
<p>CL-15</p> <p>Please indicate the version of the applied methodology</p>	ITR	<p>Response:</p>	<p>Review-1:</p> <p>Ok Closed (The version of the methodology</p>

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<p>in Section B.1 in the PDD. Moreover, the methodological tools of “Project and leakage emissions from transportation of freight” and “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” are used in the PDD. However, these tools are not indicated in Section B.1. Please indicate these tools in Section B.1.</p>			<p>was indicated and the mentioned tools were added in Section B.1.)</p>
<p>CL-16 The PD shall note that the SDG Impact Tool application is mandatory for all new projects submitted for Preliminary Review after 14.03.2022 and projects (including new PoAs and their VPAs) submitted for design certification review and renewal after 14.03.2022. Therefore, the additional information shall be provided.</p>	<p>ITR</p>	<p>Response: SDG Impact Tool prepared accordingly and is to be shared with this document.</p>	<p>Review-1: Ok Closed (The SDG Impact Tool was provided.)</p>

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