VALIDATION REPORT
HER ENERJİ VE CEVRE TEKNOLOJILERI SANAYI TICARET A.S.

VERIFICATION OF THE KAYSERI MOLU LANDFILL GAS TO ELECTRICITY PROJECT,TURKEY

REPORT NO.TURKEY-CER/1345.11.C45

REVISION NO.05

BUREAU VERITAS CERTIFICATION

62/71 Boulevard du Château
92571 Neuilly Sur Seine Cdx - France

Date of first issue:	Organizational unit:
20/05/2013	Bureau Veritas Certification Holding SAS
Client:	Client ref.:
Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S.	Mr. Hakkı Azizlerlioglu

Summary:

Bureau Veritas Certification has conducted the validation of Kayseri Molu Landfill Gas to Electricity Project, Turkey , owned by Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S., which is located in close to Molu village of Koca Sinan district in the province of Kayseri in Turkey, on the basis of UNFCCC criteria for the CDM methodology, Gold Standard (GS) v.2.1 as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The activity includes installation of landfill gas extraction system, an enclosed flare as well as three biogas driven gensets for electricity production with capacity of 1560 kWe, 1305 kWe and 1357 kWe each. The total licenced installed capacity of the project is 4,422 MWe.

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the validation process is a list of Clarification Requests, Corrective Actions Requests, and Forward Actions Requests (CLs, CARs and FARs), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology ACM0001 Version 13 and meets all relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests the registration of the project as a Gold Standard project activity.

Report No.:	Subject Group:
TURKEY-CER.1345.11C45/2012	GS-VER
Project title:	
Kayseri Molu Landfill Gas to Electricity Project , Turkey	
Work carried out by:	
Mr. Mehmet Kumru - Team Leader Mr. Srinivasan Selvaraj – Technical Expert Mr. Gürkan Kumbaroğlu – Baseline Specialist Mrs. Yıldız Arıkan – Baseline Specialist Mr. Murat Gencer – Financial Specialist	
Internal Technical Review carried out by:	
Mr. H.B. Muralidhar	

Date of this revision:	Rev. No.:	Number of pages:
09/04/2014	05	103

Indexing terms

Work approved by:
Mr. Matthieu Martini

☒ No distribution without permission from the Client or responsible organizational unit

☐ Limited distribution

☐ Unrestricted distribution

Abbreviations

BVCH	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
FAR	Forward Action Request
GHG	Green House Gas(es)
MoV	Means of Verification
MP	Monitoring Plan
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual
PMUM	Market Financial Settlement Center
GS	Gold Standard
VER	Verified Emission Reduction

Table of Contents *Page*

1. INTRODUCTION

Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S. has commissioned Bureau Veritas Certification to validate its GS-VER project Kayseri Molu Landfill Gas to Electricity Project, Turkey (hereafter called "the Project") at close to Molu village of Koca Sinan district in the province of Kayseri in Turkey

This report summarizes the findings of the validation of the Project, performed on the basis of UNFCCC CDM Methodology and Gold Standard v.02.1 criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. The Kayseri Molu Landfill Gas to Electricity project is a fast-tracked retroactive project. The project owner and the DOE meet the Gold Standard 'Fast Track' option for Retroactive projects. MoU between Gold Standard and Her Enerji Çevre Teknolojileri Sanayi Ticaret A.Ş dd. 20/07/2011 has been checked and confirmed by the validation team according to fast tracking.

1.1. Objective

The objective of a validation is to provide a through and independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan, and the project's compliance with relevant UNFCCC CDM Methodology, GS V.02.1 Requirements and host country criteria are validated in order to confirm that the project design, as documented, is sound and reasonable, and meets the applicable GS requirements and the identified criteria. Validation is a requirement for all GS-VER projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of voluntary emission reductions (VERs).

1.2. Scope

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the requirements of UNFCCC rules, Gold Standard V.02.1 , the applicability conditions of the selected methodology and guidance issued by the Board.

The validation is not meant to provide any consulting towards the Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3. Validation Team

The assessment team and internal technical reviewer team consist of the following personnel:

FUNCTION	NAME	TA 1.2	TA 13.1	TASK PERFORMED*
Team Leader	Mr. Mehmet Kumru	☒	☐	☒**DR** ☒**SV** ☒**RI** ☐**TR**
Team Member	N/A	☐	☐	☐**DR** ☐**SV** ☐**RI** ☐**TR**

Technical Specialist	Mr. Srinivasan Selvaraj	☒	☒	☒**DR** ☒**SV** ☐**RI** ☐**TR**
Technical Specialist	Yildız Arikan, Gürkan Kumbaroglu	☒	☐	☒**DR** ☐**SV** ☐**RI** ☐**TR**
Financial Specialist	Murat Gencer	☒	☐	☒**DR** ☐**SV** ☐**RI** ☐**TR**
Internal Technical Reviewer (ITR)	Mr. H.B.Muralidhar	☒	☒	☐**DR** ☐**SV** ☐**RI** ☒**TR**

*DR = Document Review; SV = Site Visit; RI = Report issuance; TR = Internal Technical Review

2. METHODOLOGY

The overall validation, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 02.0 of the Clean Development Mechanism Validation and Verification Standard, issued by CDM Executive Board at its 65th meeting on 25/11/2010. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a GS-VER project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

2.1. Review of Documents

The Project Design Document (GS-VER-PDD) submitted by Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S .and additional background documents related to the project design and baseline were reviewed.

Furthermore, cross checks were made between information provided in the GS-VER-PDD and information from sources other than those used, the DOE's sectoral or local expertise and independent background investigations.

To address Bureau Veritas Certification corrective action and clarification requests, Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S revised the GS-VER-PDD and resubmitted it on 24/03/2014.

The validation conclusions presented in this report relate to the project as described in the GS-VER-PDD version 08.

2.2. Follow-up Interviews

On 26/12/2011 and 27/12/2011, Bureau Veritas Certification performed a site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S was interviewed (see References). The main topics of the interviews are summarized in Table 1.

Stakeholders Head of Municipality was interviewed, during the site visit on suitability issues and project's local impact. They had no negative comments regarding the project.

Table 1 Interview topics

Interviewed organization	Interview topics
Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S. (the Project Owner)	➢ Project background information and GS-VER consideration. ➢ Project technology, operation and maintenance. ➢ Project approval and implementation status. ➢ Project management and monitoring plan. ➢ Stakeholder consultation process. ➢ Common practice in the area. ➢ Government policies related to the project activity.
Local Stakeholder	➢ Project background in details ➢ Stakeholder comments ➢ Social and environmental impact of the project
FutureCamp Turkey (the Consultant)	➢ Applicability of selected methodology. ➢ Baseline determination. ➢ Emission reductions calculation. ➢ Emission reduction monitoring plan. ➢ GS Requirements

2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the validation is to resolve issues that require further elaboration, research or expansion prior to Bureau Veritas Certification's positive conclusion on the project design.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable, verifiable and additional emission reductions;

(b) The applicable CDM methodologies and GS requirements have not been met;

(c) There is a risk that emission reductions cannot be monitored or calculated.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable GS requirements have been met.

A Forward Action Request (FAR) may also be raised during validation, to identify issues related to project implementation that require review during the first verification of the project activity.

To guarantee the transparency of the validation process, the issues raised, the responses provided by the project participants, the means of validation of such responses and references to any resulting changes in the GS-VER-PDD or supporting annexes are documented in the Validation Protocol in Appendix A.

2.4. Internal Technical Review

The validation report underwent an Internal Technical Review (ITR) before requesting registration of the project activity.

The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

- The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM Methodology and GS V.02.1 rules and requirements..
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs and CLs during the validation exercise, review of sample documents.

The reviewer may raise Clarification Requests to the validation team and will discuss these matters with the Team Leader.

After the agreement of the responses to the Clarification Requests from the validation team as well as the PP(s), the finalized validation report is accepted for further processing such as submission via the final validation report in pdf format.

3. VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in 11 CAR(s), 21 CL(s) and 02 FAR(s).

The CARs and CLs were closed out based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

All information given in the GS-VER-PDD has been cross-checked for authenticity through publicly available reports/data; national market norms and common practices; evidences of implemented project activities as well as expert opinion of the validation team, as applicable.

The number between brackets at the end of each section corresponds to the VVM paragraph.

3.1. Project Design Document (63)

Bureau Veritas Certification hereby confirms that the GS-VER-PDD complies with the latest forms of the guidance documents for completion of GS-VER-PDD.

3.2. Project Description (69)

The Project is a newly built biogas power plant located in north The project is located in Central Anatolia Region, Kayseri Province, Koca Sinan district, Turkey, which has geographical coordinates of north latitude 38°47'40.2"and east longitude 35° 18' 18.6".

Project is a biogas power plant in Kayseri Province of Central Anatolian Region in Turkey. Project supplies electricity generated through landfill gas, exclusively to the Turkish National Grid. The activity includes installation of landfill gas extraction system, an enclosed flare as well as three biogas driven gensets for electricity production with capacity of 1560 kWe, 1305 kWe and 1357 kWe each. The total licenced installed capacity of the project is 4,422 MWe. The gross electricity generation is confirmed as 27,500 MWh/year. The annual net power generation is confirmed as 24,907 MWh through the actualized ınternal consumption and system losses. 2013 year (January 2013 – December 2013) electricity generation values are checked and confirmed by the validation team. According to realized values internal consumptions and the system loses are confirmed as 9.4%.The capacity factor and working hours are based on output of Electricity Engine and gas supply and transmission losses are confirmed according to EMRA (http://www.epdk.org.tr/documents/10157/ced5ca29-3fec-40b1-93b7-efc71abddd1b). The plant load factor of the project activity is calculated and confirmed by the validation team as %67 (24,907 MWh x 100 / 4.222 MW x 24 x 365) according to "*Guidelines for the reporting and validation of plant load factors*". The extraction system shall include a network of vertical gas extraction wells, de-watering units and gas transport pipelines connected to a main collector system. The gas will be driven to gas engine and the flare via an aspiration system.

The DOE hereby confirms that the project description in GS-VER-PDD (version 08, section A.2) is accurate and complete in all.

The Project will result in annual average emission reductions of 56, 769 tCO_2e during the ten years of its fix crediting period.

Estimated amount of emission reductions over the crediting period can be seen as below;

Years	Annual estimation of emission reductions [tCO_2e]
2012	45,959
2013	61,433
2014	62,812
2015	64,031
2016	61,391
2017	58,893
2018	56,529
2019	54,292
2020	52,175
2021	50,171
Total emission reductions (tonnes of CO_2 e)	**567,686**
Total number of crediting years	**10**
Annual average over the crediting period of estimated reductions (tonnes of CO_2e)	**56,769**

The validation did not reveal any information indicating that the Project can be seen as a diversion of official development assistance (ODA) funding towards the host country.

The processes undertaken by the validation team to validate the accuracy and completeness of the project description include conducting a physical site inspection, sampling, reviewing available designs and feasibility studies dd. 06/10/2010, conducting comparison analysis with equivalent projects.

Bureau Veritas Certification hereby confirms that the project description in the final GS-VER-PDD is accurate and complete in all respects.

3.2.1. Sustainable Development

The sustainable Development has been discussed in the GS Passport of the project activity. It is confirmed that project does not cause any negative impact on the sustainable development.

Indicators and scores are confirmed by the validation team as;

Indicator	Score
Air Quality	+
Water Quality and quantity	+

Soil Condition	+
Other pollutants	0
Biodiversity	0
Quality of employment	0
Livelihood of the poor	0
Access to affordable and clean energy services	0
Human and institutional capacity	0
Quantitative employment and income generation	+
Balance of payments and investment	0
Technology transfer and technological self-reliance	0

1. **Air Quality "+"**

   The project activity will have a positive effect on the air quality parameter. Landfill gas will be collected and combusted, thus emission will be destroyed. (http://www.epa.gov/lmop/publications-tools/index.html#two). Besides greenhouse gases, all other air pollutants, particle and VOC emissions are avoided by the project activity.

2. **Water Quality and Quantity "+"**

   The project activity causes leachate. The leachate will sent to the waste water treatment plant and transfer of leachate to waste water will be monitored annually. It is also enforced by the law (www.cygm.gov.tr/CYGM/Files/mevzuat/yonetmelik/kaky.doc and http://www.mevzuatlar.com/sy/resmiGazete/rga/10/03/260310010.htm)

3. **Soil Condition "+"**

   The leachate cause to soil contamination when not controlled. There is no change between the baseline and the project scenario when collect the leachate as it is enforced by law (http://www.tuik.gov.tr/PreHaberBultenleri.do?id=6276&tb_id=6). Furthermore, the project will contribute to soil condition through the electricity generation.

4. **Other Pollutants "0"**

   The project has no significant emission of other pollutants than already monitored.

5. **Biodiversity "0"**

   The proposed project activity does not have any impact on the surrounding biodiversity. Kayseri Governorship Environment and Forestry Directorate have issued an EIA not required document dated 24/02/2011.

6. **Quality of Employment "0"**

   The technical personnel will be trained for the operation of the plant and all of the workers will be trained on health and safety with regulations of Ministry Labour and SocialSecurity(http://www.isguvenligi.net/mevzuat/4857_isig_yonetmelikleri/is_sagligi_ve_guvenligi_yonetmeligi.pdf).This parameter will be monitored through the training records by the project manager during the monitoring periods.

7. Livelihood of Poor "0"

The project does not have an direct effect on human and institutional capacity in the region. The project will provide job opportunities to the local people and will provide indirect effects on the local economy. During the site visit Mr. Nizamettin Karatas who is chief of the waste pickers declared that the waste pickers has no negative opinions for the project activity. This parameter score is confirmed as "0" by the validation team, because the project activity has not a direct effect on livelihood of poor parameter.

8. Access to affordable and clean energy services "0"

Electricity generation is mixed in Turkey and the electricity generation currently depend on the oil and gas imports. The electricity generated in Kayseri Molu Landfill Project will diversify the electricity generation mix of Turkey. This parameter score is confirmed as "0" because the project electricity capacity is very low when compared to the Turkey's national grid.

9. Human and institutional capacity "0"

Local employee number will be increase by the project activity. The project will have an impact on income distribution in the region, this impact will be negligible.

10. Quantitative Employment and Income Generation "+"

Before the initial verification the company will provide job opportunities in the region. The company will provide job opportunities and as a result income generation. During construction 12 and during operation 3 staff will be employed. This parameter will be monitored by SGK (Social Security Institution) records annually. This positive material found eligible by the validation team if the project will help the sustainable development in the region. Also employment of waste pickers will be monitored through interviews with waste pickers employed at site.

11. Balance of payments and investment "0"

Turkey's national grid is mainly depends on imported fossil fuel fired power plants. The company invests in renewable energy technology and decreasing the fossil fuel imports. The project activity effect at negligible level because the electricity generation capacity so this parameter score is confirmed as "0".

12. Technology transfer and technological self-reliance "0"

The project will lead to transfer of knowledge on waste management and electricity generation using landfill gas utilization. No mitigation measure is required chosen parameter i.e. total number of employee having certificates will not be monitored. Therefore scoring of the parameter is confirmed as "0".

All Sustainability Monitoring Plan parameters are accepted by the validation team and the other parameters in the Sustainability Development matrix and "Do No Harm"

assessment are reviewed and validated through the given references by project owners. "Do No Harm" assessment are reviewed as follows;

Safeguarding Principle 1 (SP1): During the site visit it is confirmed that the project area is not indigenous people. Turkey is a party to Universal Declaration of Human Rights: (http://ua.mfa.gov.tr/detay.aspx?2634)

Safeguarding Principle 2 (SP2): The project does not involve and is not complicit in involuntary resettlement. The project is constructed on the landfill and there is no settlement on landfill, the project does not cause resettlement. This is confirmed through the Molu Village Muhtar declaration during the site visit.

Safeguarding Principle 3 (SP3): In the project area there is no cultural heritage. The project is constructed on the landfill, there is no cultural heritage on landfill site. This is confirmed through the Molu Village Muhtar declaration during the site visit.

Safeguarding Principle 4 (SP4): In Turkey it is legal right to being part of an association and collective bargaining. This parameter is also confirmed through the ILO Convention 87 (http://ua.mfa.gov.tr/detay.aspx?5305)

Safeguarding Principle 5 (SP5): The project does not involve and is not complicit in any form of forced or compulsory. It is confirmed through the ILO Convention 29 since 25.01.2001. (http://www.isvesosyalguvenlik.com/mevzuat/mvz240.htm)

Safeguarding Principle 6 (SP6): No child labor is employed for the project activity. This parameter also will be checked by the DOE through the SGK records during the verification periods. SP6 is confirmed according to convention on Worst Forms of Child Labour since 2001.(http://webfusion.ilo.org/public/db/standards/normes/appl/applbyCtry.cfm?lang=en&CTYCHOICE=0660)

Safeguarding Principle 7 (SP7): This parameter is confirmed that 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. Turkey is also party to Convention on Discrimination since 1967 to prevent any form of discrimination (http://webfusion.ilo.org/public/db/standards/normes/appl/applbyCtry.cfm?lang=en&CTYCHOICE=0660)

Safeguarding Principle 8 (SP8): This parameter risk is defined as high. The workers are trained in respect to the construction safety. Also the project will provide a safe and healthy working environment in line with the the regulation of Ministry of Labour and Social Security on "Heath and Occupational Safety Regulation" has to be followed by companies serving for construction and operation of the plant (http://www.mevzuat.adalet.gov.tr/html/5116.html)

Safeguarding Principle 9 (SP9): This parameter risk is defined as Low. The project does not have a potential to harm environment. Kayseri Governorship Environment and Forestry Directorate have issued an EIA not required document dated 24/02/2011.

Safeguarding Principle 10 (SP10): The project does not involve and is not complicity in significant conversion or degradation of critical natural habitats.

Safeguarding Principle 11 (SP11): The project does not involve and is not complicit in corruption. Turkey is a party to United Nation Convention against Corruption since 2006; (http://ua.mfa.gov.tr/detay.aspx?15042)

The sustainable Development has been discussed in the GS Passport of the project activity. It is confirmed that project does not cause any negative impact on the sustainable development by the validation team through the references and provided documents.

3.3. Baseline and Monitoring Methodology

3.3.1.Applicability of the selected Methodology (77)

The Project uses the approved consolidated baseline and monitoring methodology ACM0001 Version 13.

The applicability of the selected methodology is justified and assessed as follows:

(1) Kayseri Molu Landfill gas project install a new LFG capture system in a new SWDS; and flare the LFG to generate electricity. Kayseri Molu landfill gas to energy project aims on capturing the landfill gas to produce electrical energy. If the power plant is out of order because of maintenance or a failure, the landfill gas will be burnt in an enclosed high temperature flare.

This means that the project activity aims on (a and c) and during periods of maintenance on as described above. This justifies the choice for ACM0001 version 13.

This applicability condition is confirmed through the production license dated 11/08/2011, feasibility report dated 06/10/2010 and site visit observations by the validation team.

Bureau Veritas Certification hereby confirms that the selected baseline and monitoring methodology, tool and other methodology component is previously approved by the CDM Executive Board, and is applicable to the Project, which, complies with all the applicability conditions therein.

3.3.2.Project Boundary (86-87)

The validation team has validated the project boundary by:

(a) Assessing the relevant documents including {e.g. commissioning report}.

(b) Observing the physical site and equipment used in the process.

The spatial extent of the project boundary is clearly defined in line with AMS-III.G version 07 and ACM0001 version 13.

The greenhouse gases and emission sources included in the project boundary are methane emissions have been indicated a major source in the baseline.

Bureau Veritas Certification hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity. The validation team did not identify any emission sources that will be affected by the implementation of the proposed project activity and which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology.

3.3.3. Baseline Identification (94-95)

The procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied.

Alternatives are discussed through the "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 05.0.0)

Under Step 1 Identification of alternative scenarios are presented. Under Step 1a 5 Alternatives are defined to the project CDM project activity as follows;

LFG 1: *The project activity implemented without being registered as a CDM project activity*

LFG 2: *Atmospheric release of the LFG or partial capture of LFG and destruction to comply with regulations or contractual requirements, or to add safety and odour concerns;*

LFG 3: *LFG is partially not generated because part of the organic fraction of the solid waste is recycled and not disposed in the SWDS;*

LFG 4: *LFG is partially not generated because part of the organic fraction of the solid waste is treated aerobically and not disposed in the SWDS*

LFG 5: *LFG is partially not generated because part of the organic fraction of the solid waste is incinerated and not disposed in the SWDS.*

S1: *The proposed project activity undertaken without being registered as a CDM project activity;*

S2: *Where applicable, no investment is undertaken by the project participants but third party(ies) undertake(s) investments or actions which provide the same output to users of the project activity, for example:*

(i) In the case of a Greenfield power project, an alternative scenario may be that the project participants would not invest in another power plant but that power would be generated in existing and/or new power plants in the electricity grid.

S3: *Where applicable, the continuations of the current situation, not requiring any investment or expenses to maintain the current situation, such as, inter alia:*

(i) The continued venting of methane from a landfill;

(ii) The continued release of N2O from adipic or nitric acid production.

S4: *Where applicable, the continuations of the current situation, requiring an investment or expenses to maintain the current situation, such as, inter alia:*

(i) The continued use of an existing boiler involving expenses for operation and maintenance;

(ii) The continued use of a specific fuel mix for power generation in an existing power plant.

S5: *Other plausible and credible alternative scenarios to the project activity scenario, including the common practices in the relevant sector, which deliver the same output, taking into account, where relevant, examples of scenarios identified in the underlying methodology;*

S6: *Where applicable, the "proposed project activity undertaken without being registered as a CDM project activity" to be implemented at a later point in time (e.g. due to existing regulations, end-of-life of existing equipment, financing aspects).*

LFG 3, *LFG 4* and *LFG 5*, and *S4*, *S5* and *S6* not considered as a baseline scenario because of there was no recycle of organic waste prior to the project implementation, solid waste has not been treated aerobically prior to the project implementation, there was no incinerated in the SWDS of the project activity. S4 is not applicable in case of the project activity. There is no other plausible alternative than stated under S5 alternative and there is no reason that may cause that the proposed project to be implemented in a later point of time for S6 alternative.

LFG 1 is realistic and credible scenario if the project turns out to be financially attractive without GS VER credit income. However, investment analysis shows that the project activity is not economically feasible without GS VER credit income.

LFG 2 alternative is another realistic and credible scenario for the project activity. In addition to the alternative baseline scenarios identified for the destruction of LFG, alternative scenarios for the use of LFG is identified as follows;

E1: *Electricity generation from LFG, undertaken without being registered as CDM project activity;*

E2: *Electricity generation in existing or new renewable or fossil fuel based captive power plant(s);*

E3: *Electricity generation in existing and/or new grid-connected power plants.*

E1 and E3 is found realistic and credible scenario for the project activity.

S3 alternative is the last realistic scenario for the project activity that defined as no investment is undertaken by the project participants but third party(ies) undertake(s) investments or actions which provide the same output to users of the project activity.

Finally 3 credible scenarios have occurred for the project activity as follows;

Option 1: *The proposed project activity is undertaken without being registered as a CDM project activity (LFG1 + E1)*

Option 2: *It continues to release LFG to the atmosphere and use the electricity from the grid which is business as usual (LFG2 + E3)*

Option 3: *Where applicable, no investment is undertaken by the project participants but third party(ies) undertake(s) investments or actions which provide the same output to users of the project activity (S3 +E3)*

Since the project is the installation of a new grid connected biogas power plant, the baseline scenario has been identified, in line with the applied methodology ACM0001 version 13 biomass and other organic matter are left to decay within the project boundary and methane is emitted to the atmosphere. According to the methodology ACM0001 version 13, the recovered methane from landfill gas is used for electricity production and electricity is delivered to the grid by the project activity, which 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 under section B.4 of the GS-VER-PDD version 08. .

Following the procedural guidance of the applicable version of the Tool referred in the identified baseline scenario from ACM0001 version 13 "Tool to calculate emission factor for an electricity system version 02.2.1" and the "Combined tool to identify the baseline scenario and demonstrate additionality" (version 05.0.0). Project participant has calculated the Combined Margin.

Project electricity system has been defined as the Turkish National Grid, justified by TEIAS data. Following the criterion set forth by the Tool has leaded the Project Participant to adopt the default national grid definition. Hence the calculation of Operating Margin (OM) and Build Margin (BM) has been based on the Turkish electricity network as one single interconnected system. Bureau Veritas Certification hereby confirms that:

(a) All the assumptions and data used by the project participants are listed in the GS-VER-PDD, including their references and sources;

(b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the GS-VER-PDD;

(c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;

(d) Relevant national and/or sectoral policies and circumstances are considered and listed in the GS-VER-PDD;

(e) The approved baseline methodology has been correctly applied to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

3.3.4.Algorithms and/or Formulae used to determine Emission Reductions (99-100)

The steps taken and the equations and parameters applied in the PDD to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected methodology including applicable tool(s).

Project installed capacity has been validated as 4.422 MWe through the EMRA Generation License.

The amount of methane that is destroyed/ combusted in project scenario during year y is determined by monitoring the quantity of methane actually flared and by monitoring the gas used to generate electricity, and the total quantity of methane captured. There is neither methane used for generation of thermal energy (HG) nor sent to the pipeline for feeding to the natural gas (NG) distribution network or flared.

The sum of the quantities fed to the flares ($F_{CH4,flared,y}$) and to the power plant ($F_{CH4,EL,y}$)will be summed up annually be adopted as $F_{CH4,PJ,y}$

$F_{CH4,PJ,y}$ is determined using the "Methodological Tool to determine the mass flow of a greenhouse gas in a gaseous stream" Version 02.0.0. The following requirements apply:

• The gaseous stream the tool shall be applied to is the LFG delivery pipeline to electricity. $F_{CH4,PJ,y}$ is then calculated as the sum of mass flows to electricity generation.

• CH4 is the greenhouse gases for which the mass flow should be determined;

• The flow of the gaseous stream should be measured on continuous basis;

• The simplification offered for calculating the molecular mass of the gaseous stream is valid (equations 3 or 17 in the tool); and

• The mass flow should be summed to a yearly unit basis (t CH4/yr).

According to the "Tool to determine the mass flow of a greenhouse gas in a gaseous stream" (Version 02.0.0) the mass flow of greenhouse gas *I (CH4)* in the gaseous stream in time interval *t* (F_{CH4}, t) is calculated based on measurements of

a) the total volume flow or mass flow of the gas stream and

b) the volumetric fraction of the gas in the gaseous stream and

c) the water content and gas composition.

$$BE_{CH4,y} = (1 - OX_{top-layer})(F_{CH4,PJ,y} - F_{CH4,BL,y})GWP_{CH4}$$

Where:

$BE_{CH4,y}$ Baseline emissions of LFG from the SWDS in year *y* (t CO2e/yr)

$OX_{top-layer}$ Fraction of methane in the LFG that would be oxidized in the top layer of the SWDS in the baseline (dimensionless)

$F_{CH4,PJ,Y}$ Amount of methane in the LFG which is flared and/or used in the project activity in year *y* (t CH4/yr)

$F_{CH4,BL,y}$ Amount of methane in the LFG that would be flared in the baseline in year *y* (t CH4/yr)

GWP_{CH4} Global warming potential of CH4 (t CO2e/t CH4)

Ex-ante estimation of $F_{CH4,PJ,y}$

It is calculated as follows;

$$F_{CH4,PJ,y} = \eta_{PJ} * BE_{CH4,SWDS,y} / GWP_{CH4}$$

Where:

$F_{CH4,PJ,y}$:Amount of methane in the LFG which is flared and/or used in the project activity in year *y* (t CH4/yr)

$BE_{CH4,SWDS,y}$:Amount of methane in the LFG that is generated from the SWDS in the baseline scenario in year *y* (t CO2e/yr)

η_{PJ} :Efficiency of the LFG capture system that will be installed in the project activity

GWP_{CH4} :Global warming potential of CH4 (t CO2e/t CH4)

$BE_{CH4,SWDS,y}$ is determined using the methodological tool "Emissions from solid waste disposal sites". The following guidance will be taken into account when applying the tool:

• *fy* in the tool shall be assigned a value of 0 because the amount of LFG that would have been captured and destroyed is already accounted for in equation 2 of this methodology;
• In the tool, x begins with the year that the SWDS started receiving wastes (e.g. the first year of SWDS operation); and
• Sampling to determine the fractions of different waste types is not necessary because the waste composition can be obtained from previous studies.

The project will capture only a fraction of the whole LFG due to following reasons:

- The degassing system has its own efficiency
- The enclosed flares have their destruction efficiency

The project activithy has different efficiencies for gas collection, thus a 50% of default value is applied for calculation.

According the methodological tool "Emissions from solid waste disposal sites" version 06.0.1, ex-ante calculation of $BE_{CH4,SWDS,y}$ based on the formulation below:

$$BE_{CH4,SWDS,y} = \varphi \cdot (1-f) \cdot GWP_{CH4} \cdot (1-OX) \cdot \frac{16}{12} \cdot F \cdot DOC_f \cdot MCF \cdot \sum_{x=1}^{y} \sum_{j} W_{j,x} \cdot DOC_j \cdot e^{-k_j (y-x)} \cdot \left(1-e^{-k_j}\right)$$

where

φ	model correction factor to account for model uncertainties (0.9)
f	fraction of methane captured at SWDS and flared, combusted or used in another manner (default value as per ACM 0001 is zero)
OX	oxidation factor (reflecting the amount of methane from SWDS that is oxidized in the soil or another material covering waste)
F	fraction of methane in the SWDS gas (volume fraction (0.5))
DOCf	fraction of degradable organic carbon (DOC) that can decompose
MCF	methane correction factor
Wj,x	amount of organic waste type j prevented from disposal in the SWDS in the year x [t]
DOCj	fraction of degradable organic carbon (by weight) in the waste type j
kj	decay rate for waste type j
j	waste type category (index)
x	year of receiving wastes at the landfill site: x runs from the first year of landfill operation x=1 to the year for which avoided emissions are calculated (x = y)
y	year for which methane emissions are calculated

Determination of $F_{CH4,PJ,y}$

During the crediting period, $F_{CH4,\ PJ,y}$ is determined as the sum of the quantities of methane flared and used in power plant(s), boiler(s), air heater(s), kiln(s) and natural gas distribution network, as follows:

$$F_{CH4,PJ,y} = F_{CH4\,flared,y} + F_{CH4,EL,y} + F_{CH4,HG,y} + F_{CH4,NG,y}$$

Where:

$F_{CH4,PJ,y}$	:Amount of methane in the LFG which is flared and/or used in the project activity in year *y* (t CH4/yr)
$F_{CH4,flared,y}$	:Amount of methane in the LFG which is destroyed by flaring in year *y* (t CH4/yr)
$F_{CH4,EL,y}$	:Amount of methane in the LFG which is used for electricity generation in **year *y*** (t CH4/yr)
$F_{CH4,HG,y}$	:Amount of methane in the LFG which is used for heat generation in year *y* (t CH4/yr)
$F_{CH4,NG,y}$	:Amount of methane in the LFG which is sent to the natural gas distribution network in year *y* (t CH4/yr)

The sum of the quantities fed to the flares **($F_{CH4,flared,y}$)** and to the power plant **($F_{CH4,EL,y}$)**will be summed up annually be adopted as **$F_{CH4,PJ,y}$**

$F_{CH4,PJ,y}$ is determined using the "Methodological Tool to determine the mass flow of a greenhouse gas in a gaseous stream" Version 02.0.0. The following requirements apply:

• The gaseous stream the tool shall be applied to is the LFG delivery pipeline to electricity. $F_{CH4,PJ,y}$ is then calculated as the sum of mass flows to electricity generation.
• CH4 is the greenhouse gases for which the mass flow should be determined;
• The flow of the gaseous stream should be measured on continuous basis;
• The simplification offered for calculating the molecular mass of the gaseous stream is valid (equations 3 or 17 in the tool); and
• The mass flow should be summed to a yearly unit basis (t CH4/yr).

According to the "Tool to determine the mass flow of a greenhouse gas in a gaseous stream" (Version 02.0.0) the mass flow of greenhouse gas *I (CH4)* in the gaseous stream in time interval *t* (F_{CH4}, t) is calculated based on measurements of
a) the total volume flow or mass flow of the gas stream and
b) the volumetric fraction of the gas in the gaseous stream and
c) the water content and gas composition.

The mass flow of greenhouse gas *i* ($F_{i,t}$) is determined as follows:

$$F_{i,t} = V_{t,db} * V_{i,db,t} * \rho_{i,t}$$

With

$$\rho_{i,t} = \frac{P_t * MM_i}{R_u * T_t}$$

Where:

$F_{i,t}$ Mass flow of greenhouse gas *i* in the gaseous stream in time interval *t* (kg gas/h)
$V_{t,db}$ Volumetric flow of the gaseous stream in time interval *t* on a dry basis (m³ dry gas/h)
$V_{i,t,db}$ Volumetric fraction of greenhouse gas *i* in the gaseous stream in a time interval *t* on a dry basis (m³ gas *i*/m³ dry gas)
$\rho_{i,t}$ Density of greenhouse gas *i* in the gaseous stream in time interval *t* (kg gas *i*/m³ gas *i*)
P_t Absolute pressure of the gaseous stream in time interval *t* (Pa)
MM_i Molecular mass of greenhouse gas *i* (kg/kmol)
R_u Universal ideal gases constant (Pa.m3/kmol.K)
T_t = Temperature of the gaseous stream in time interval *t* (K)

The hourly values are then aggregated for the duration of the monitoring period n, as follows:

$$F_{CH4,El,n} = \sum_{h=1}^{h=hn} F_{CH4,t}$$

Amount of methane destroyed by flaring *($F_{CH4,flared,y}$)*

$F_{CH4,\ flared,\ y}$ is determined as the difference between the amount of methane supplied to the flare(s) and any methane emissions from the flare(s), as follows:

$$F_{CH4,flared,y} = F_{CH4,sent\_flare,y} - (PE_{flare,y} / GWP_{CH4})$$

Where:

$F_{CH4,flared,y}$	Amount of methane in the LFG which is destroyed by flaring in year *y* (t CH4/yr)
$F_{CH4,\ sent\_flare,y}$	Amount of methane in the LFG which is sent to the flare in year *y* (t CH4/yr)
$PE_{flare,y}$	Project emissions from flaring of the residual gas stream in year *y* (t CO2e/yr)
GWP_{CH4}	Global warming potential of CH4 (t CO2e/t CH4)

On the other hand according to "Tool to determine project emission from flaring gases containing methane", the project emissions from flaring of the residual gas steam $PE_{flare,y}$ are determined considering the following steps;

STEP 1: Determination of the mass flow rate of the residual gas that is flared

$$FM_{RG,h} = \rho_{RG,n,h} \times FV_{RG,h}$$

where:

$FM_{RG,h}$	mass flow rate of the residual gas in hour h [kg/h]
$\rho_{RG,n,h}$	density of the residual gas at normal conditions in hour h [kg/m^3]
$FV_{RG,h}$	volumetric flow rate of the residual gas in dry basis at normal conditions in the hour h [m^3/h]

and:

$$\rho_{RG,n,h} = \frac{P_n}{\frac{R_u}{MM_{RG,h}} \times T_n}$$

where:

$\rho_{RG,n,h}$	density of the residual gas at normal conditions in hour h [kg/m^3]
P_n	atmospheric pressure at normal conditions (101,325) [Pa]
R_u	universal ideal gas constant (8,314) [Pa.m^3/kmol.K]
$MM_{RG,h}$	molecular mass of the residual gas in hour h [kg/kmol]

T_n temperature at normal conditions (273.15)[K]

and:

$$MM_{RG,h} = \sum\left(fv_{i,h} \cdot MM_i\right)$$

where:

$MM_{RG,h}$ molecular mass of the residual gas in hour h [kg/kmol]
$fv_{i,h}$ volumetric fraction of methane in the residual gas in the hour h [-]
MM_i molecular mass of residual gas components i [kg/kmol]
i the components: CH_4 and N_2

A simplified approach is used, where only the volumetric fraction of methane is measured and it is considered the difference to 100% as being nitrogen (N_2).

STEP 2: Determination of the mass fraction of carbon, hydrogen, oxygen and nitrogen in the residual gas

Determination of mass fractions of carbon, hydrogen and nitrogen in the residual gas, calculated from the volumetric fraction of each component i in the residual gas are as follows:

$$fm_{j,h} = \frac{\sum_i fv_{i,h} \cdot AM_j \cdot NA_{j,i}}{MM_{RG,h}}$$

where:
$fm_{j,h}$ mass fraction of element j in the residual gas in hour h [-]
$fv_{i,h}$ volumetric fraction of component i in the residual gas in the hour h
AM_j atomic mass of element j [kg/kmol]
$NA_{j,i}$ number of atoms of element j in component i [-]
$MM_{RG,h}$ molecular mass of the residual gas in hour h [kg/kmol]
j the elements carbon, hydrogen and nitrogen
i the components: CH_4 and N_2

STEP 5: Determination of methane mass flow rate of the residual gas on a dry basis

The quantity of methane in the residual gas flowing into the flare is the product of the volumetric flow rate of the residual gas ($FV_{RG,h}$), the volumetric fraction of methane in the residual gas ($fv_{CH4,RG,h}$) and the
density of methane ($\rho_{CH4,,n,h}$) in the same reference conditions (normal conditions and dry or wet basis).

$$TM_{RG,h} = FV_{RG,h} \times fv_{CH4,RG,h} \times \rho_{CH4,n}$$

where:

$TM_{RG,h}$	mass flow rate of methane in the residual gas in the hour h [kg/h]
$FV_{RG,h}$	volumetric flow rate of the residual gas in dry basis at normal conditions in hour h [m^3/h]
$fv_{CH4,RG,h}$	volumetric fraction of methane in the residual gas on dry basis in hour h (NB: this corresponds to $fv_{i,RG,h}$ where i refers to methane).
$\rho_{CH4,n,h}$	density of methane at normal conditions (0.716) [kg/m^3]

STEP 6: Determination of the hourly flare efficiency

In the case of project activity, an enclosed flare is used and the flare efficiency is determined by default value.
In case of enclosed flares and use of the default value for the flare efficiency, the flare efficiency in the hour h (ηflare,h) is:
• 0% if the temperature in the exhaust gas of the flare (Tflare) is below 500 °C for more than 20 minutes during the hour h .
• 50%, if the temperature in the exhaust gas of the flare (Tflare) is above 500 °C for more than 40 minutes during the hour h, but the manufacturer's specifications on proper operation of the flare are not met at any point in time during the hour h.
• 90%, if the temperature in the exhaust gas of the flare (Tflare) is above 500 °C for more than 40 minutes during the hour h and the manufacturer.s specifications on proper operation of the flare are met continuously during the hour h.

STEP 7: Calculation of annual project emissions from flaring based on measured hourly values or based on default flare efficiency.

Project emission from flaring are calculated as the sum of emission from each hour h, based on the methane flow rate in the residual gas ($TM_{RG,h}$) and the flare efficiency during each hour h ($\eta_{flare,h}$), as follows:

$$PE_{flare,y} = \sum_{h=1}^{8760} TM_{RG,h} \times \left(1 - \eta_{flare,h}\right) \times \frac{GWP_{CH4}}{1000}$$

Finally, the methodology ACM0001 Version 13 provide for cases to determine the amount, while there is "no requirement to destroy methane exist and no existing LFG capture system" for Molu Kayseri Landfill, as in the case 1,

$F_{CH4,BL,y}=0$

Project Emissions:

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

Where:

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

$PE_{EC,y}$ Emissions from consumption of electricity due to the project activity in year *y* (t CO2/yr)

$PE_{FC,y}$ Emissions from consumption of fossil fuels due to the project activity, for purpose other than electricity generation, in year *y* (t CO2/yr)

The project emissions from consumption of electricity by the project activity ($PE_{EC,y}$) is calculated using the "Tool to calculate baseline, project and/or leakage emissions from electricity consumption". When applying the tool:

- Electricity sources *j* in the tool corresponds to the sources of electricity consumed due to the project activity. This includes, where applicable, electricity consumed for the operation of the LFG capture system,

$$PE_{EC,y} = \sum_k EC_{PJ,j,y} xEF_{EL,j,y} x(1 + TDL_{j,y})$$

Where:

$PE_{EC,y}$ Project emissions for electricity consumption in year y (tCO2/yr)

$EC_{PJ,j,y}$ Quantity of electricity consumed by the project electricity consumption sources j in y (MWh/yr)

$FE_{EL,j,,y}$ Emission factor for electricity generation for source j in year y (tCO2/MWh)

$TDL_{k,y}$ Average technical transmission and distribution losses for providing electricity to source j in year y

j Sources of electricity consumption in the project

For the simplicity of emission reduction calculation, project emission from electricity consumption is assumed to be "0". For ex-post calculation, this emission sources will be taken into account.

The project emissions from fossil fuel combustion ($PE_{FC,j,y}$) will be calculated following the "Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion". For this purpose, the processes j in the tool corresponds to all fossil fuel combustion in the landfill, as well as any other on-site fuel combustion needed for the project activity.

$$PE_{FC,j,y} = \sum_i FC_{i,j,y} \times COEF_{i,y}$$

Where

$FC_{i,j,y}$	quantity of fuel type i combusted in process j during the year y
$COEF_{i,y}$	CO_2 emission coefficient of fuel type i in year y

The CO_2 emission coefficient is calculated following Option B as fuel combust chemical composition of the fuel.

The CO_2 emission coefficient is calculated following Option B based on net calorific value and CO_2 emission factor of the fuel type I as follows:

$$COEF_{i,y} = NCV_{i,y} \times EF_{CO2,i,y}$$

where

$COEF_{i,y}$	CO_2 emission coefficient of fuel type i in year y
$NCV_{i,y}$	the weighted average net calorific value of the fuel type I in year y
$EF_{CO2,y}$	the weighted average CO_2 emission factor of fuel type I in year y
i	are the fuel types combusted in process j during the year y

For the simplicity of emission reduction calculation, project emission from fossil fuel combustion is assumed to be "0". For ex-post calculation, this emission sources will be taken into account.

Leakage

No, leakage emissions has been accounted according to approved consolidated methodology ACM0001 Version 13.

Emission Reduction

ERy = BEy -PEy

Where:

ERy : Emission reductions in year y (t CO2e/yr)

BEy : Baseline emissions in year y (t CO2e/yr)

PEy : Project emissions in year y (t CO2/yr)

The formulas and factors used in the calculation of GHG emissions are found to be transparent and correct by the validation team.

Bureau Veritas Certification hereby confirms that:

(a) All assumptions and data used by the project participants are listed in the GS-VER-PDD, including their references and sources;

(b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the GS-VER-PDD;

(c) All values used in the GS-VER-PDD are considered reasonable in the context of the proposed project activity;

(d) The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

(e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the GS-VER-PDD.

3.4. Additionality (104)

As required by the selected methodology, the additionality of the Project has been demonstrated by applying Methodological tool: “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 05.0.0)

Prior consideration of the Clean Development Mechanism (112)

The timeline of the Project has been validated as in Table 2 below:

Table 2 Timeline of the Project

Date	Events	Reference

27/09/2010	Contract with the Municipality	Contract
06/10/2010	Feasibility report is prepared by SE Energietechnik GmbH	
04/03/2011	Date of Board Decision on Carbon Income	Board Decision
08/02/2011	First Proposal Request from VER Consultants	E-mail exchanges
29/04/2011	Turnkey agreement with İltekno (Decision Making)	Agreement
05/05/2011	Signature with FutureCamp Turkey for VER Development	VER Consultancy Agreement
01/07/2011	Starting Construction Activities with Roads and Site Preparation	Site Log
20/07/2011	MoU Between Gold Standard and Her Enerji	
01/08/2011	Issuance of the License	EMRA License
14/10/2011	The date of contract with the DOE	Contract
31/10/2011	Operation date for first gas engine	Site Log
21/11/2011	Date of Submission of Initial PDD to DOE	
01/08/2012	Operation date for second gas engine	Site Log
05/07/2013	Planned Operation date for third gas engine	Site Log

From the table above, the validation team is able to verify that the project activity start date determined as 29/04/2011 in the PDD is appropriate and is the earliest of the dates at which either the implementation or construction or real action of the Project began. Contract with the municipality not considered as a decisive commitment towards investment of the project activity because the agreement does not have any penalty if the project not implemented. This is in accordance with the latest CDM glossary. Before the project activity start date Board decision for the carbon revenues dd. 04/03/2011 is confirmed as prior consideration, after the project activity start date contract is signed with the FutureCamp Turkey for VER development dd.

05/05/2011. On the other hand the project activity is started after the feasibility study is prepared. The feasibility report is prepared by SE Energietechnik GmbH on 06/10/2010.

The DOE validated the project activity start date provided in the GS-VER-PDD by the agreement made with the gas engine supplier on 29/04/2011.

The evidence for prior consideration of the GS-VER that were assessed is the Board Decision on Carbon Income dd. 04/03/2011.

Bureau Veritas Certification hereby confirms that the proposed project activity complies with the requirements related to the prior consideration of the CDM.

3.4.1.Identification of Alternatives (116)

The plausible and credible alternatives to the Project were identified as per Methodological tool: "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 05.0.0)

Alternative 1: Atmospheric release of the landfill gas (continuation of current practices) without being registered as a CDM project activity,

Alternative 2: LFG use for electricity production and sale to the grid,

Bureau Veritas Certification considers the listed alternatives to be credible and complete.

3.4.2.Investment Analysis (123)

Analysis method

The assessment and demonstration of additionality of the project has been done by using UNFCCC Methodological tool: "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 05.0.0)

In applying this tool, under sub-step 2b, Benchmark Analysis (Option III) has been chosen and the other options have been eliminated because, the proposed Project generates financial and economic benefits through the sales of electricity other than Voluntary Emissions Reduction (VER) related income and number of comparable project investment.

A benchmark analysis is applied and considered to be appropriate.

Benchmark

Under sub-step 2c, project IRR has been selected as the financial indicator. The selected benchmark has been assessed to be applicable to the type of IRR calculated as per the guidelines given in the tool.

The validation team considers that the type of benchmark applied is suitable for the type of financial indicator presented; the risk premiums applied in determining the benchmark reflect the risks associated with the project activity; it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark.

According to the "Tool for the demonstration and assessment of additionality", benchmark for investment analysis can be derived from "Estimates of the cost of financing and required return on capital based on bankers views and private equity investors/funds". The benchmark is confirmed as %20 through the Worldbank loan appraisal document. (http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2009/05/11/000333037_20090511030724/Rendered/PDF/468080PAD0P112101Official0Use0Only1.pdf page 80,paragraph 29 and page 81, Table 11.5)

Data source

The input values are taken from FSR and proposals, which was compiled by SEF-Energietechnik GmbH dated dd. 06.10.2010. All IRR inputs are checked and confirmed by the validation team through the references. The validation team confirms that the values used in the GS-VER-PDD and associated annexes are fully consistent with the FSR.

Input value

The validation team has reviewed the IRR calculation sheet and cross-checked the major input values using local knowledge as well as sectoral and financial expertise and confirms that:

Equipment	Cost	Reference
Turnkey cost of 3 biogas engine	5,580,000	Turnkey agreement with iltekno
Transportation for filling material for of landfill	43.641	Invoice from Şaşaloğlu İnşaat as Annex3a
Construction material for power houses	112.573	Invoice from Bayramoğlu as Annex3b
Transmission line	177.809	
VAT	60.124	
Total Project Cost	5,914,024	
Total project cost with VAT	5,974,148	

The project total cost is estimated according to the cost of one engine. (Turnkey agreement with Iltekno dd.29/04/2011). Cost of first engine 1,860,000 Euro. The second and third engine costs

are estimated according to cost of the first engine so the total equipment cost is confirmed as 5,580,000 Euro which is the biggest part of the total investment cost of the project activity.

On the other hand O&M and other costs of the project activity is confirmed as 883.381 Euro by the validation team through the proposals and contracts as follows;

Cost Items	**Yearly (EUR)**	Reference:	date
Operation and maintanance fix annually	307.920	proposal from intekno, 07.07.2011	07.01.2011
Salaries and Administration	176.006	organization chart	
Employees	144.000		
Management (Payment for fuel)	32.006		
Sistem connection cost	21.469	epdk	
Insurance cost	33.480		
Municipality fee	344.506	municipality contract	10.09.2010
TOTAL ANNUAL Operation Cost	**883.381**		

All indicators are confirmed by the validation team according to given references which are valid at the time of investment decision.

Indicator Calculation

Based on the input values from the proposal that are valid and applicable at the time of investment decision, the equity IRR of the Project without GS-VER revenues is 13.64% after tax, lower than the benchmark, which shows that the Project is not financially attractive in the absence of VER benefits.

According to the "Tool for the demonstration and assessment of additionality", benchmark for investment analysis can be driven from 'Estimates of the cost of financing and required return on capital based on bankers views and private equity investors/funds'. As a banker view, according to Worldbank loan appraisal document threshold equity IRR for biomass investments (i.e. required returns of equity for biomass power investors) in Turkey is 20%.

The validation team has reviewed the IRR calculation spreadsheet and confirms that the calculation and presentation are consistent with the "Guidelines on the assessment of investment analysis" version 05. The data sources as well as the analysis approach are reliable and in accordance with local accounting regulations or international best practice.

Sensitivity Analysis

Variables including the initial investment cost, that constitute more than 10% of either total project costs or total project revenues were taken as uncertainty factors for sensitive analysis to determine under what conditions variations in the result would occur, and the likelihood of these condition:

- Investment Cost

Under Sub-step 2d, sensitivity analysis has been applied to the investment cost for a decrease 10% and and for an increase 10%. According to sensitivity analysis; when the investment costs decrease 10%, the IRR of the project activity rises up to 15.80%. The IRR value decreases with the rise of the investment cost down to 11.76%. On the other hand according to calculations can pass benchmark by %30 decreasing of the investment cost , but it is so high for the project activity and it is not realistic. The IRR becomes %20.37 by decreasing the Investment cost.

- Annual Energy Yield

Sensitivity analysis has been applied to the annual energy yield for a decrease 10% and and for an increase 10%. According to sensitivity analysis; when the annual energy yield decreases 10%, the IRR of the project activity rises up to 16.57%. The IRR value decreases with the rise of the annual energy yield down to 10.48%. The project IRR should pass the benchmark %26 increasing of energy yield of the project activity. The power price for wind power plant is recently revised in Feed in tariff as 13.3 USD Cent/kWh, which is not expected to be revise soon. The IRR becomes %20.60 by increasing the energy yield.

- Operating Cost

Sensitivity analysis has been applied to the operating cost for a decrease 10% and and for an increase 10%. According to sensitivity analysis; when the operating cost 10%, the IRR of the project activity rises up to 14.87%. The IRR value decreases with the rise of the operating cost down to 12.38%. By decreasing %60 of the operating cost the IRR pass the benchmark but it is not a realistic. The IRR becomes %20.52 by decreasing the operating cost.

According to the sensitivity analysis proposed project activity is unlikely to be economically attractive without the revenues from VERs as even the maximum IRR result for the best scenario 16.57% is below the benchmark. The conditions of the IRR how to pass benchmark value are presented under the Investment Cost, Annual Energy Yield and Operating Cost sensitivity analysis. It is confirmed that the range of variation (+/-) 10% is deemed appropriate.

The validation team considers that the range of variations is reasonable in the project context. The analysis provided a cross-check on the suitability of the assumptions used in the development of the investment analysis. The conclusion that the project activity is unlikely to be financially/economically attractive is robust to reasonable variations in the critical assumptions.

Bureau Veritas Certification hereby confirms that the underlying assumptions regarding investment analysis are appropriate and the financial calculations are correct.

3.4.3.Barrier Analysis (127)

Barrier analysis is not used for the project activity.

3.4.4. Common Practice Analysis (130)

Under the common practice analysis section, landfill gas extraction and utilization projects with similar installed capacity in the same region have been compared to the proposed project activity. The applicable geographical area is the host country.

First, an analysis of the private owned facility for biogas utilization from municipal waste in Turkey has given bease on EMRA data and VER registries (Gold Standard and Verified Carbon Standard)

As it is validated, there are no similar projects to the proposed project in Turkey. The technical and commercial risks are high for this project. Without GS-VERs income, the proposed project does not represent an attractive investment opportunity as it faces relevant barriers.

The project capacity is 4.422 MW. Per the guideline of +/-50%, the applicable output range for the project is 2.111 MW to 6.333 MW. The applicable geographical area is chosen as Turkish national grid. It is confirmed that Nall and Ndiff is equal to 0 through the capacity projection report. Also an excel sheet is provided for the common practice analysis.

Finally F factor is calculated as follows;

F=1-Ndiff/Nall

The F factor is not bigger than 0.2 and the Nall-Ndiff is not greater than 3 so the proposed project activity is not a common practice as per the “Combined tool to identify the baseline scenario and demonstrate additionality (Version 05.0.0) and “Guidelines on Common Practice Version 02.0”

Bureau Veritas Certification hereby confirms that the proposed GS-VER project activity is not common practice.

3.5. Monitoring Plan (133)

The Project uses the approved monitoring methodology ACM0001 Version 13.

Applicability of this methodology is justified in GS-VER-PDD as the proposed project activity will recover LFG generated from a municipal solid waste disposal site and the proposed project activity feeds the electricity produced by utilizing LFG, one of the renewable energies, into the Turkish Power Grid. Referring to the discussions on the applicability of the methodology in section 3.3.1 above, the validation team considers that the selected monitoring methodology is applicable to the Project.

Data and Parameters Monitored

- Temperature of the landfill gas (T);
- Pressure of the landfill gas (P);
- Landfill gas flow from the landfill (Vt);
- Landfill gas flow into flare ($FV_{RG,h}$);
- Landfill gas into power plant ($LFG_{electricity}$);
- Methane content in the landfill gas ($V_{CH4,h,db}$);
- Oxygen content in the landfill gas (O_2);
- Project emissions from flaring residual gas streams containing methane (PE_f = PEflare)
- Net Electricity sent to the grid ($EG_{facility,y}$)

The validation team considers that the description of the monitoring plan contains all necessary parameters, that they are described and that the means of monitoring described in the plan complies with the requirements of the methodology including applicable tool(s).

Implementation of the Monitoring Plan

The monitoring methodology is based on direct measurement of the amount of landfill gas captured and destroyed at the flare platform and the electricity generating unit to determine the quantities. Responsibilities for the data processing and management lie with Her Enerji Plant manager will have main responsibility to collect and archive the data.

QA/QC process is described in the monitoring plan. The meters would be calibrated as per state and/or sector standards and rules and calibrated according to the manufacturer's specification. This is assessed as in compliance with General Guidelines to SSC CDM methodologies.

The validation team considers that the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed project activity can be reported ex post and verified.Bureau Veritas Certification hereby confirms that the monitoring plan complies with the requirements of the methodology including applicable tool(s), the monitoring arrangements described in the monitoring plan are feasible within the project design and the project participants are able to implement the described monitoring plan.

3.6. Environmental Impacts (137)

The project participants conducted an analysis of the environmental impacts of the proposed project activity, including transboundary impacts. The project participants have undertaken an

analysis of environmental impacts the project activity is environmentally licensed by the competent authority. Based on the Project Introductory File submitted to the Ministry of Environment and Forestry, the Ministry decides whether the project owners shall make a furher and detailed EIA analysis or further EIA is not required for the project activity. Kayseri Governorship Environment and Forestry Directorate have issued an EIA not required document dated 24/02/2011.

Bureau Veritas Certification hereby confirms that the project participants have undertaken an analysis of environmental impacts and an environmental impact assessment in accordance with procedures as required by the host Party.

3.7. Local Stakeholder Consultation (140)

The steps taken to assess the adequacy of the local stakeholder consultation are described below.

There has been no stakeholder meeting for this retroactive project through the GS rules. Stakeholder comments will be received during stakeholder feedback round.

Stakeholder feedback round was started on 24th of December 2011 on FutureCamp web site (http://fc-tk.futurecamp.de/projeler/kayseri-molu-landfill/) and all documentation were made available until 06th of April, 2012. It is aimed that all stakeholders and participants of the project could reach the documents through internet access. At the end of the period, there was only one request from local NGO demanding more information but no comment directed to e-mail or postal addresses provided in invitation letter.

Site visit was performed on 26 – 27/12/2011 by the validation team. During the site visit Sustainable development aspects are interviewed by locals and Molu Village Muhktar. They were have positive opinions for the project activity. It is interviewed that the waste pickers were continuing to pick recycling waste at the project site with the opportunities and places provided to them by project owner. Mr. Nizamettin Karatas is the chief of the waste pickers on project site. He declared that the waste pickers has positive opinions for the project activity. Molu Village Muhktar declared that the during the Stakeholder documents and project Summary, were provided in the office of Molu Village Head for local people' interest during the period of 24.12.2011 and 06.04.2012. No comments are submitted to the Molu Village Muhktar during this period. Also landfill management is discussed during the site visit. Municipality is the responsible for the waste collecting. The collected wastes are given the Her Enerji. It is confirmed according to agreement with Municipality and Her Enerji dd. 27/09/2010.

Bureau Veritas Certification hereby confirms that comments that are relevant for the proposed project activity have been invited from local stakeholders, the summary of the comments received as provided in the GS-VER-PDD and GS Passport are complete, the project participants have taken due account of all comments received and have described this process in the GS-VER-PDD and GS Passport.

4. VALIDATION OPINION

Bureau Veritas Certification has performed a validation of the Kayseri Molu Landfill Gas to Electricity Project, Turkey , which is located in north located in close to Molu village of Koca Sinan district in the province of Kayseri in Turkey The validation was performed on the basis of UNFCCC criteria, Gold Standard Version 02.1 criteria , and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion.

The project correctly applies the approved consolidated baseline and monitoring methodology ACM0001 Version 13 and uses the latest tool for demonstration of the additionality.

By implementing the proposed project, the landfill gas will be avoided from being released directly from landfill site. In addition GHG emission reductions can also be achieved as electricity generated from covered landfill gas. , the project is likely to result in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated annual average emission reductions of 56,769 tCO_2e during the ten years of its fixed renewable crediting period.

The review of the project design documentation (version 08) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM methodology, Gold Standard Version 02.1 and the relevant host country criteria. Bureau Veritas Certification thus requests registration of the project as a GS-VER project activity.

Mrs. H.B. Muralidhar	Mr. Mehmet Kumru
Internal Technical Reviewer	Team Leader

5. REFERENCES

Category 1 Documents:

Documents provided by project participants that relate directly to the GHG components of the project.

/1/ PDD_KayseriMolu_Landfill_v01 dated 23/11/2011
/2/ KayseriMolu Passport v01 dated 21/11/2011
/3/ IRR dated 24/11/2011
/4/ Calculation tool dated 24/11/2011
/5/ PDD_ KayseriMolu Landfill_v02 dated 22/05/2012
/6/ GS Passport_v02 dated 22/05/2012
/7/ IRR dated 22/05/2012
/8/ CM dated 22/05/2012
/9/ Calculation Tool dated 22/05/2012
/10/ PDD version 03 21/09/2012
PDD version 04 06/02/2013
PDD version 05 09/06/2013
PDD version 06 18/07/2013
PDD version 07 10/12/2013
PDD version 08 24/03/2014
/11/ GS Passport version 03 06/02/2013
GS Passport version 04 06/06/2013
GS Passport version 05 30/12/2013
GS Passport version 06 24/03/2014
/12/ IRR dated 06/02/2013
IRR Excel Sheet Version 05
IRR Excel Sheet Version 06 – 24/03/2014
/13/ CM Version 06 – 24/03/2014
/14/ Electricity Monthly Records (January 2013 - December 2013)
/15/ Calculation Tool dated 06/02/2013
/16/ Annex1_Production License dated 11/08/2011
/17/ Annex2_Municipal Rental Contract dated 27/09/2010
/18/ Annex3_Turnkey Agreement with İltekno
/19/ Annex4_Cogen Proposal with İltekno
/20/ Annex5_Employee cost
/21/ Annex6_EIA not required dated 24/02/2011
/22/ Annex7_Board Decision
/23/ Annex8_Worldbank Document
/24/ Annex9_Capacity Estimation by SE Energietechnik GmbH dated 02/08/2011
/25/ Annex10_Feasibility by SE Energietechnik GmbH dated 06/10/2010
/26/ Annex11_Technical data of generator
/27/ Annex12_Electrical performance of motor

/28/ Annex13_Flare system specification

/29/ MoU Between Gold Standard and Her Enerji Çevre Tek. San. Tic A.S 20/07/2011

/30/ Annex14_Letter of application Licence Amended.

/31/ http://www.epa.gov/lmop/publications-tools/index.html#two
www.cygm.gov.tr/CYGM/Files/mevzuat/yonetmelik/kaky.doc
http://www.mevzuatlar.com/sy/resmiGazete/rga/10/03/260310010.htm
http://www.tuik.gov.tr/PreHaberBultenleri.do?id=6276&tb_id=6
http://www.isguvenligi.net/mevzuat/4857_isig_yonetmelikleri/is_sagligi_ve_guvenligi_yonetmeligi.pdf

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents used for cross-check.

/32/ Project Design Document (CDM-PDD)

/33/ UNFCCC CDM Validation and Verification Manual, v.1.2

/34/ Guidelines for Completing CDM-PDD

/35/ Gold Standard v.2.1 requirements

/36/ Gold Standard v.2.1 Toolkit

/37/ ACM0001 Version 12: ‘ Flaring or use of landfill gas

/38/ Methodological tool: “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 05.0.0)

/39/ Methodological tool: “Emissions from solid waste disposal sites” (version 6.0.0)

/40/ Methodological tool: “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” version (01)

/41/ Methodological tool “Tool to determine project emissions from flaring gases containing methane” Version 1. EB28, Annex 13;

/42/ Methodological tool: “Tool to calculate the emission factor for an electricity system” (version 02.2.1)

/43/ Methodological tool: “Tool to determine the mass flow of a greenhouse gas in a gaseous stream”
(Version 02.0.0)

/44/ Guidance on the Assessment of Investment Analysis, version 03, EB 51

Persons interviewed:

Persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

/1/	Mr. Ali Duzgun,	Managing Director, HER Energi ve Cevre Tecnolojileri Elk, Uretim A.S
/2/	Mr. Fariz Tasdan	Consultant (FutureCamp)
/3/	Ms. Derya Ozet	Project Coordinator, Environmental Engineer, ILTEKNO ILERI TEKNOLOJI MUHENDISLIK TIC. A.S
/4/	Mr. Said Ahmed Okur	Municipal Chief, Kayseri
/5/	Mr. Derviş Aslan	Molu Village Muhktar
/6/	Mr. Nizamettin Karataş	Waste Pickers' Chief

6. CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Mr. Mehmet Kumru	Bureau Veritas Certification, Turkey	Team Leader, Climate Change Lead Verifier, Mehmet Kumru received his Bachelor's Degree in Environmental Engineering from Uludag University. He was worked as a team member of research and development in renewable energy projects. He is working with Bureau Veritas Turkey as an auditor and carbon verifier. He is also lead verifier in ISO 14064 and PAS 2050.

Mr. Srinivasan Selvaraj	Bureau Veritas Certification, India	Team Member Techical Specialist, Climate Change Verifier. Has a Bachelors of Technology degree in Chemical Engineering and Master of Engineering degree in Environmental Management and has successfully completed the IRCA approved Lead Auditor training course for Environmental Management System. He has over 6 years of experience in the field of Environment and Energy services including detailed design engineering and preparation of Detailed Project Reports, environmental assessment reports, Environmental management plans for urban as well as industrial projects. He has been in the CDM validation and verification since June 2008 and he is with Bureau Veritas Certification (India) Pvt. Ltd. as Verifier - Climate change since March 2010. He has undergone training related to Clean Development Mechanism and is currently involved in validation and verification of CDM project activities.

Yildiz Arikan - Assoc. Professor Dr Sabancı University, Faculty of Management	Baseline Specialist	Yildiz Arikan is an Electrical engineer and she is working at Sabancı University. She has supported thesis related with energy. In addition, she has been conducting research studies on energy including ''CO2 Emission Research'' Studies. Academically, Yildiz Arikan is working also on GHG project since 2005.
Mr.Murat Gencer	Financial Specialist	RiskTürk Software Development and Consultancy – Head of Financial Analysis Team Murat Gencer, consultant and a trainer, has over 11 years of experience in FMCG, software development and banking sectors. He is specialized in project finance, financial modelling, risk management and MS Excel applications.

APPENDIX A: GS-VER PROJECT VALIDATION PROTOCOL

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
1. Approval			*COUNTRY A (insert the country name)*	*COUNTRY B (insert the country name)*		
a. Have all Parties involved approved the project activity?	VVM	44	Turkey has ratified the Kyoto Protocol however not set any emission reduction target; hence it is not listed as an Annex B country of the Kyoto Protocol and will not be a host for Clean Development Mechanism (CDM) or Joint Implementation (JI) projects until the end of 2012 -, because of its particular situation. There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
b. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a writTen letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participatn or directly from the DNA)	VVM	45	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
c. Does the letter of approval from DNA of each Party involved:	VVM	45	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
ii. confirm that participation is voluntary?	VVM	45.b	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK
iii. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the	VVM	45.c	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
sustainable development of the country?					
iv. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
d. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
e. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	There is no DNA in Turkey. Hence, the checklist question is N/A.		OK
f. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
g. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	There is no DNA in Turkey. Hence, the checklist question is N/A.	OK	OK
2. Participation			*PP1 (insert PP1 name)* *PP2 (insert PP2 name)*		
a. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
b. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
c. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
d. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
e. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
approval document for each of the project participants)					
f. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
g. Has the approval of participation issued from the relevant DNA?	VVM	53	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
h. Is there doubt with respect to (g) above? I	VVM	53	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
i. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VVM	53	The project is not developed under compliance markets. Therefore the checklist question is N/A.	OK	OK
3. Project design document					
a. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	The CDM-SSC-PDD is used for validation has version number 03 (in effect as of 22 December 2006) which is in accordance with the latest template and guidance from the CDM Executive Board on the UNFCCC website.	OK	OK
b. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	The PDD is accordance with the "Guidelines for Completing the Simplified Project Design Document (CDM-SSC-PDD) and the Form for Proposed New small-scale Methodologies (CDM-SSC-NM), version05"	OK	OK
c. In CDM-SSC-PDD section A.1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Title of project	EB 34	Ann 09	The title of the project is given in section A.1 as following : "Kayseri Molu Landfill Gas to Electricity Project, Turkey"	OK	OK
ii. Current version number and date of document	EB	Ann	The version number and date of the project is given	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	34	09	in section A.1 as following: Version number of the document: 01 Date: 21/11/2011		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
d. In CDM-SSC-PDD section A.2 are following provided (max. one page)?	EB 34	Ann 09	*Please see below:*		
i. A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, present scenario and baseline	EB 34	Ann 09	A brief description of the project activity covering purpose is provided under section A.2 of the PDD version 01. The purpose of the proposed project activity is to generate electricity by using the existing landfill area and to reduce greenhouse gas emission. Please provide a brief description of the project activity that includes the scenario existing prior to the start or project, present scenario and baseline scenario under section A.2 of the PDD.	CL01	OK
ii. Explanation how the GHG emission reductions are effected	EB 34	Ann 09	It is mentioned under section A.2 of the PDD version 01 that since the project activity uses the existing landfill; it will lead to reduction in emissions of GHG.	OK	OK
iii. The PP's view on the contribution of project activity to sustainable development	EB 34	Ann 09	The view of the project participants on the contribution of the project activity to sustainable is given under section A.2 of the PDD. The purpose of the proposed project activity is to reduce fossil fuel and GHG emissions from the landfill by using biogas for electricity generation. The project activity aims to reduce imported energy amounts and cost, to improvement the environmental conditions.	OK	OK
iv. Are there any changes/modifications	EB	Ann	The proposed project activity is developed under	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
compared to the webhosted PDD?	34	09	the GS rules. Therefore, the PDD is not webhosted. The proposed project activity is assessed based on the GS rules using Table 2 of this Validation Protocol.		
e. In CDM-SSC-PDD section A.3 are following provided in the tabular format?	EB 34	Ann 09	*Please see below.*		
i. List of project participants and Party(ies)	EB 34	Ann 09	The project participant is listed in a tabular format under section A.3. "Her Enerji ve Çevre Teknolojileri Sanayi Ticaret A.Ş." is defined as project participant.	OK	OK
ii. Identification of host party	EB 34	Ann 09	An identification of Turkey's position in Kyoto Protocol is provided under section A.3 of the PDD. Turkey has ratified the Kyoto Protocol on 05/02/2009.	OK	OK
iii. Indication whether the Party wishes to be considered as project participant	EB 34	Ann 09	It is stated under section A.3 of the PDD that the Party involved does not wish to be considered as project participant.	OK	OK
f. In CDM-SSC-PDD section A.4.1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Technical description, location, host party(ies) and address as required?	EB 34	Ann 09	The location of the project activity is defined under section A.4.1 of the PDD. The project activity is located in Central Anatolia Region of Turkey, Kayseri Province, Koca Sinan district.	OK	OK
ii. Detailed physical location with unique identification of the project activity (eg. Longitude/latitude) – not to exceed one page	EB 34	Ann 09	The detailed information on the project location, including geographic and physical information allowing the unique identification and delineation of	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			the specific extent of the project are provided under section A.41.4 of the PDD version 1.0 The coordinates of landfill gas plant are provided under section A.4.1.4 of the PDD version 1. The project location was verified during the site visit by the GPS device.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
iii. Are there any changes/modifications compared to the webhosted PDD?	EB 34	Ann 09	The proposed project activity is developed under GS rules. Therefore, the PDD is not webhosted. The proposed project activity is assessed based on the GS rules using Table 2 of this Validation Protocol.	OK	OK
g. In CDM-SSC-PDD section A.4.2 are following provided	EB 34	Ann 09	*Please see below.*		
i. the list of categoreis of project activities as per the latest categorization of Appendix B to to the simplified modalities and procedures for small-scale CDM project activities, hereafter referred to as Appendix B. (refer http://cdm.unfccc.int/methodologies/SSCmethodologies	EB 34	Ann 09	The list of categories of the project activity is provided in line with the UNFCCC rules.	OK	OK
ii. A description of how environmentally safe and sound technology and know how is being applied by the project activity interalia technology transfer to the Host Party(ies) for application in the project activity	EB 34	Ann 09	The project activity will reduce methane emissions by combusting the landfill gas to generate electricity.	OK	OK
h. In CDM-SSC-PDD section A.4.3 is the estimation of emission reductions provided, as requested, in a tabular format?	EB 34	Ann 09	The estimation of the emission reductions are given in a tabular format under section A.4.3 of the PDD.	OK	OK
i. In CDM-SSC-PDD section A.4.4 is information regarding Public funding provided?	EB 34	Ann 09	It is stated under section A.4.4 of the PDD that the project does not obtain public funding or ODA funding.	OK	OK
j. In CDM-SSC-PDD section A.4.5 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Confirmation that the small-scale project activity is	EB	Ann	It is justified under section A.4.5 that the proposed	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
not a debundled component of a large scale project activity	34	09	project activity is not a debundled component of a large-scale project activity. The statement was verified during the site visit.		
ii. Indication if there is a registered small-scale project activity under the CDM or an application to register another small-scale project activity under the CDM	EB 54	Ann 13	It is justified under section A.4.5 that the proposed project activity is not a debundled component of a large-scale project activity. Therefore the checklist question is N/A.	OK	OK
a. With the same project participants	EB 54	Ann 13	N/A	OK	OK
b. Registered within the period of 2 years	EB 54	Ann 13	N/A	OK	OK
c. Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity under the CDM at the closest point.	EB 54	Ann 13	N/A	OK	OK
iii. Are there any changes/modifications compared to the webhosted PDD?	EB 34	Ann 09	The proposed project activity is developed under the GS rules. Therefore, the PDD is not webhosted. The proposed project activity is assessed based on the GS rules using Table 2 of this Validation Protocol.	OK	OK
k. In CDM-SSC-PDD section B.1 is the approved baseline and monitoring methodology and version no provided?	EB 34	Ann 09	Please refer to the UNFCCC CDM web site for the most recent list of the small-scale CDM project activity categories contained in Appendix B.	CL02	OK
l. In CDM-SSC-PDD section B.2 are the following provided?	EB 34	Ann 09	*Please see below.*		
i. Justification of the choice of project activity and category?	EB 34	Ann 09	Please justify the choice of project type and category for the proposed project activity under section B.2.	CL03	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ii. Demonstration that the project activity qualifies as a small-scale project activity and that it will remain under the limits of small-scale project activity types during every year of the crediting period as per the following:For Type I : the capacity of the proposed project activity will not exceed 15 MW (or an appropriate equivalent); For Type II: the annual energy savings on account of efficiency improvements will not exceed 60 GWh (or an appropriate equivalent) in any year of the crediting period; For Type III: the estimated emission reductions of the project activity will not exceed 60 ktCO2e in any year of the crediting period.	EB 34	Ann 09	Please demonstrate that the project activity qualifies as a small-scale project activity and that it will remain under the limits of small-scale project activity types during every year.	OK	OK
m. In CDM-SSC-PDD section B.3 is the project boundary of the project activity, based on the guidance of the applciable project category, provided?	EB 34	Ann 09	Project boundary is given correctly under section B.3 of the PDD for baseline and project activity.	OK	OK
n. In CDM-SSC-PDD section B.4 are following provided?	EB 34	Ann 09	*Please see below.*		
i. The baseline for the proposed project activity with reference to the chosden project category	EB 34	Ann 09	The baseline for the proposed project activity with reference to the chosen project category is provided under section B.4	OK	OK
ii. Justification of key assumptions and rationales	EB 34	Ann 09	The justification of key assumptions and rationales is provided under section B.4.	OK	OK
iii. Transparent illustration of all data used to determine the baseline emissions (variables, parameters, data sources etc)	EB 34	Ann 09	Transparent illustration of all data used to determine the baseline emissions is provided under section B.4	OK	OK
iv. Are there any changes/modifications compared to	EB	Ann	The proposed project activity is developed under	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the webhosted PDD?	34	09	the GS rules. Therefore, the PDD is not webhosted. The proposed project activity is assessed based on the GS rules using Table 2 of this Validation Protocol.		
o. In CDM-SSC-PDD section B.5 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Explanation that the proposed project activity is additional as per options provided under attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities	EB 34	Ann 09	The explanation of how and why this project activity is additional and therefore not the baseline scenario in accordance with the selected baseline methodology is given under section B.5 of the PDD. Additionality of the project activity is assessed under section 6 of this table.	OK	OK
ii. National policies and circumstances relevant to the baseline of the proposed project activity	EB 34	Ann 09	National policies and circumstances relevant to the baseline of the proposed project activity are provided under section B.5 of the PDD.	OK	OK
iii. Evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, if the starting date of the project activity is before the date of validation. (this is part of the large scale project guidelines. It is better to be retained)	EB 34	Ann 09	The project timeline and prior consideration is provided under section B.5 of the PDD.	OK	OK
p. In CDM-SSC-PDD section B.6.1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Explanation on how the procedures, in the approved project category to calculate project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project	EB 34	Ann 09	It is clearly explained under B.6.1 of the PDD version 1 how the project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
activity.			activity.		
ii. Clearly stating of which equations will be used in calculating emission reductions.	EB 34	Ann 09	The equations used in calculating emission reductions are given under B.6.1of the PDD version 1 by referred the equation numbers that stated under the methodology and tool.	OK	OK
iii. Explaination and justification of all relevant methodological choices, including: where the category provides different options to choose from; where the category provides for different default values	EB 34	Ann 09	The explanation and justification for all relevant methodological choices, including different options and default values are provided under section B.6.1 of the PDD.	OK	OK
q. In CDM-SSC-PDD section B.6.2 are following provided?	EB 34	Ann 09	*Please see below.*		
i. A compilation of information on the data and parameters that are not monitored but determined upfront so as to be available for validation	EB 34	Ann 09	A compilation of information on the data and parameters that are not monitored throughout the crediting period but that are determined only once and thus remains fixed throughout the crediting period and that are available when validation is undertaken is given under section B.6.2 of the PDD.	OK	OK
ii. The actual value applied	EB 34	Ann 09	The actual value is given under section B.6.2 of the PDD.	OK	OK
iii. Explanation and justification for the choice of the source of data	EB 34	Ann 09	The choice of the source of data is explained and justified under section B.6.2 of the PDD.	OK	OK
iv. Clear and transparent references or additional documentation in Annex 3	EB 34	Ann 09	The background information (tables with time series data) used in the application of the baseline methodology is given under Annex 3 and Annex 4 of the PDD.	OK	OK
v. Where values have been measured, a description of	EB	Ann	The values used in the calculations are not	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the measurement methods and procedures (e.g. which standards have been used), indicated the responsible person/entity having undertaken the measurement, the date of measurement(s) and the measurement results	34	09	measured.		
r. In CDM-SSC-PDD section B.6.3 are following provided?	EB 34	Ann 09	*Please see below.*		
i. A transparent ex ante calculation of project emissions, baseline emissions (or, where applicable, direct calculation of emission reductions) and leakage emissions expected during the crediting period, applying all relevant equations provided in the approved methodology	EB 34	Ann 09	The ex-ante calculation of emission reductions, applying all relevant equations provided in the approved methodology is given clearly under section B.6.3 of the PDD.	OK	OK
ii. Documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation	EB 34	Ann 09	The documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation is provided under section B.6..3 of the PDD.	OK	OK
iii. Additional background information and or data in Annex 3, including relevant electronic files (i.e. spreadsheets)	EB 34	Ann 09	The background information (tables with tine series data) used in the application of the baseline methodology is given under Annex 3 and Annex 4 of the PDD.	OK	OK
iv. Emission reduction calculations for each component are provided separately if more than one component activity is applied	EB 34	Ann 09	Emission reduction calculation is provided for one component.	OK	OK
s. In CDM-SSC-PDD section B.6.4 are the results of the ex ante estimation of emission reductions for all years of the crediting period, in a tabular format, provided?	EB 34	Ann 09	The estimation of the emission reductions are given in a tabular format under section B.6.4 of the PDD.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
t. In CDM-SSC-PDD section B.7.1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity	EB 34	Ann 09	The specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity is provided under B.7.1 of the PDD.	OK	OK
ii. For each below parameter the following information, using the table provided:	EB 34	Ann 09	*Please see below.*		
a. The source(s) of data that will be actually used for the proposed project activity (e.g. which exact national statistics). Where several sources may be used, explain and justify which data sources should be preferred	EB 34	Ann 09	Yes, the sources of data's are provided regarding to the methodology. All references have been provided.	OK	OK
b. Where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a specification which accepted industry standards or national or international standards will be applied, which measurement equipment is used, how the measurement is undertaken, which calibration procedures are applied, what is the accuracy of the measurement method, who is the responsible person/entity that should undertake the measurements and what is the measurement interval; (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment. Provide	EB 34	Ann 09	All measurement methods have been specified regarding to the methodology.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
any relevant further background documentation in Annex 4.					
iii. A detailed description of the monitoring plan.	EB 34	Ann 09	*Please see below.*		
a. The operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects generated by the project activity	EB 34	Ann 09	The most important parameters (Gas quantities methane/oxygen concentrations temperatures) will be monitored on-line and all data will be stored in the monitoring station on the landfill site. All process parameters will be stored in the data-logger of the degassing installation. Once a day the data will be transferred to the monitoring station on the landfill site.	OK	OK
b. Thes responsibilities for and institutional arrangements for data collection and archiving	EB 34	Ann 09	The responsibilities for data collecting and archiving has been identified. Responsibilities for the data processing and management lie with Her Enerji. Please include Organizational chart for the project	CL04	OK
c. Does the monitoring plan reflect good monitoring practice appropriate to the type of project activity	EB 34	Ann 09	The monitoring plan is reflected good monitoring practice appropriate to the type of project activity.	OK	OK
d. Relevant further background information in Annex 4	EB 34	Ann 09	Annex 4 is provided background information "baseline information for electricity production"	OK	OK
u. In CDM-SSC-PDD section B.8 are following provided	EB 34	Ann 09	*Please see below.*		
i. Date of completion of the application of the methodology to the project activity study in DD/MM/YYYY	EB 34	Ann 09	The date is indicated as 23/09/2011 under section B.8	OK	OK
ii. Contact information of the person(s)/entity(ies)	EB	Ann	Contact information is of the entity is given as	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
responsible for the application of the baseline and monitoring methodology to the project activity	34	09	FuturCamp Turkey who is responsible for the application of the baseline methodology to the project activity.		
iii. Indicated if the person/entity is also a project participant listed in Annex 1	EB 34	Ann 09	FutureCamp Turkey is indicated project consultant.	OK	OK
v. In CDM-SSC-PDD section C.1.1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. The starting date of a CDM project activity is the earliest of the date(s) on which the implementation or construction or real action of a project activity begins/has begun (EB33, Para 76/CDM Glossary of terms/EB41, Para 67)	EB 34	Ann 09	The starting date of the project activity is defined as electromechanical contract signature which is 24/04/2011. However the electromechanical contract signature date is indicated as 29/04/2011 in provided document.	CAR02	OK
ii. A description of how this start date has been determined, and a description of the evidence available to support this start date	EB 34	Ann 09	*This checklist question is evaluated after CAR02 is closed.*	CAR02	OK
iii. If this starting date is earlier than the date of publication of the CDM-SSC-PDD for global stakeholder consultation by a DOE, does Section B.5 above contain a description of how the benefits of the CDM were seriously considered prior to the starting date (EB41, Para 68).? (though this is in guideline for large scale projects, it is advisable to maintain this for small scale projects as well)	EB 34	Ann 09	The VER revenue was seriously considered prior to the starting date.	OK	OK
w. In CDM-SSC-PDD section C.1.2 is the expected operational lifetime of the project activity in years and months provided?	EB 34	Ann 09	The expected lifetime of the project activity is defined as 10 years. Please also give in years and months format. Please provide reference for the technical lifetime of	CL05	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			the equipment.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
x. In CDM-SSC-PDD section C.2 is it statet whether the project activity will use a renewable or a fixed crediting period and completed C.2.1 or C.2.2 accordingly?	EB 34	Ann 09	It is stated project will use a renewable crediting period and C.2.1.2 has been filled.	OK	OK
y. In CDM-SSC-PDD section C.2.1 is it indicated thath each crediting period shall be at most 7 years and may be renewed at most two times, provided that, for each renewal, a designated operational entity determines and informs the Executive Board that the original project baseline is still valid or has been updated taking account of new data where applicable?	EB 34	Ann 09	It is not identified that how many times crediting period will be renewed under section C.2.1 of the PDD. Please clarify.	CL06	OK
z. In CDM-SSC-PDD section C.2.1.1 are the dates in the following format: (DD/MM/YYYY) provided?	EB 34	Ann 09	The date is given in format (DD/MM/YYYY). The date is defined as 01/10/2011	OK	OK
aa. In CDM-SSC-PDD section C.2.1.2 is the length of the first crediting period in years and months?	EB 34	Ann 09	The length of the first crediting period is defined only years. Please also indicate years and months format.	CL07	OK
bb. In CDM-SSC-PDD section C.2.2 is it indicated fixed crediting period at most ten (10) years	EB 34	Ann 09	N.A.	OK	OK
cc. In CDM-SSC-PDD section C.2.2.1 are the dates in the format (DD/MM/YYYY) provided?	EB 34	Ann 09	N.A.	OK	OK
dd. In CDM-SSC-PDD section C.2.2.2 is the length of the crediting period in years and months provided?	EB 34	Ann 09	N.A.	OK	OK
ee. In CDM-SSC-PDD section D.1 is the documentation on the analysis of the environmental impacts, if required by Host Party, provided?	EB 34	Ann 09	IEA not required certificate is provided to DOE. Which document date is given as 29.02.2011	OK	OK
ff. In CDM-SSC-PDD section E.1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. The process by which comments by local	EB	Ann	There have been no stakeholder meeting for this	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilities comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted	34	09	retroactive project. Stakeholder comments will be received during stakeholder feedback round.		
ii. The project activity is described in a manner, which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures	EB 34	Ann 09	N/A	OK	OK
iii. The local stakeholder process has been completed before submitting the proposed project activity to the DOE for validation	EB 34	Ann 09	N/A	OK	OK
gg. In CDM-SSC-PDD section E.2 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Local stakeholders that have made comments identified	EB 34	Ann 09	A stakeholder consultation meeting has not been carried out for the project.	OK	OK
ii. Asummary of these comments	EB 34	Ann 09	A stakeholder consultation meeting has not been carried out for the project.	OK	OK
hh. In CDM-SSC-PDD section E.3 is and explanation of how due account have been taken of comments received from local stakeholders provided?	EB 34	Ann 09	A stakeholder consultation meeting has not been carried out for the project.	OK	OK
ii. In CDM-SSC-PDD Annex 1 are following provided?	EB 34	Ann 09	*Please see below.*		
i. Contact information of project participants	EB 34	Ann 09	The project proponents are identified as “Her Enerji Üretim Sanayi ve Ticaret A.Ş.” in Annex 1 of the PDD version 01. The contact information is given in	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			tabular format.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ii. For each organisation listed in section A.3 the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail	EB 34	Ann 09	The contact information is given in tabular format for each organization listed in section A.3 of the PDD.	OK	OK
jj. In CDM-SSC-PDD Annex 2 is information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties provided?	EB 34	Ann 09	The project activity is developed under Gold Standard, therefore the checklist question is N/A.	OK	OK
kk. In CDM-SSC-PDD Annex 3 is the background information used in the application of the baseline methodology provided?	EB 34	Ann 09	The background information (tables with time series data) used in the application of the baseline methodology is given Annex 3 of the PDD.	OK	OK
ll. In CDM-SSC-PDD Annex 4 is the background information used in the application of the monitoring methodology provided?	EB 34	Ann 09	The details of the monitoring plan is given in section B.7 of the PDD and no further background information is required to be given under Annex4 .	OK	OK
4. Project description					
a. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	VVM	58	The PDD contains a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation. The project activity is a biogas power plant located close to Molu village Koca Sinan district in the province of Kayseri in Turkey. Kayseri Molu Landfill Gas to Electricity project is planned to produce	CAR03	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			electricity by using landfill gas. However installed capacity of the project is not indicated. Also please check the unit (kWe) of Table 1 Amount of electricity to be produced in the project		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
b. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59	*Please see below.*		
i. sufficiently covering all relevant elements?	VVM	59	This checklist question will be evaluated after the CAR03 is closed.	CAR03	OK
ii. acurate?	VVM	59	This checklist question will be evaluated after the CAR03 is closed.	CAR03	OK
iii. providing the reader with a clear understanding of the nature of the proposed CDM project activity?	VVM	59	This checklist question will be evaluated after the CAR03 is closed.	CAR03	OK
iv. Are there any changes/modifications compared to the webhosted PDD?	VVM	59	The proposed project activity is developed under GS rules. Therefore, the PDD is not webhosted. The proposed project activity is assessed based on the GS rules using Table 2 of this Validation Protocol.		OK
c. Is the proposed CDM project activity in existing facilities or or utilizing existing equipments?	VVM	60	The proposed project activity is neither in existing facilities nor in utilizing existing equipments the project activity is a greenfield project. During the site visit, it was confirmed that project activity is a greenfield project.	OK	OK
d. Is the CDM project activity one of the following types:	VVM	60	*Please see below.*		
i. Large scale?	VVM	60	This checklist question will be evaluated after the CAR03 is closed.	CAR03	OK
ii. Non-bundled small scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60	The proposed project activity is renewable energy project. Hence this checklist question N/A.	OK	OK
iii. Bundled small scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60	The proposed project activity is renewable energy project. Hence this checklist question N/A.	OK	OK
e. If yes to (c) or (d) above, was a physical site inspection	VVM	60	A physical site visit was conducted on 26-	OK	OK

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
	conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?			27/12/2011. During the site visit confirm that the description in the PDD reflects the proposed project activity.		
f.	If yes to (d.iii) above, was the number of physical site visits base on samping?	VVM	60	N/A	OK	OK
g.	If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	N/A	OK	OK
h.	For other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	N/A	OK	OK
i.	For all other proposed CDM project activities not referred to in paragraphs 59 – 61, was a physical site inspection conducted?	VVM	62	N/A	OK	OK
j.	If no, was it appropriately justified?	VVM	62	Physical site inspection was conducted. Therefore, the checklist question is N/A.	OK	OK
k.	Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	The proposed project activity does not involve the alteration of an existing installation or process. The project activity is a new built project as validated through the site visit.	OK	OK
l.	If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	The proposed project activity does not involve the alteration of an existing installation or process. Therefore, the checklist question is N/A.	OK	OK
5.	***Baseline and monitoring methodology***					
a.	***General requirement***					
a.	Do the the baseline and monitoring methodologies selected by the project participants comply with the	VVM	65	The baseline and monitoring methodologies selected by the project participants comply with the	CAR04	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
methodologies previously approved by the CDM Executive Board?			methodologies previously approved by the CDM Executive Board. The selected methodology and tools as follows: • ACM0001 "Consolidated baseline and monitoring methodology for landfill gas project activities" Version 11. Please also indicate used tools for the proposed project activity.		
b. Is the selected methodology applicable to the project activity?	VVM	66	▪ Refer to (5.b.a) below	-	-
c. Had the PP correctly applied the selected methodology?	VVM	66	▪ Refer to (5.b.d) below	-	-
d. Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	▪ Refer to (5.c) below	-	-
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	▪ Refer to (5.d) below	-	-
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	▪ Refer to (5.e) below	-	-
g. Had the selected methodology been correctly applied with respect to additionality?	VVM	67	▪ This checklist question will be answered after the CARs/CLs regarding additionality of the methodology are closed.		OK
i. Specific questions per methodology regarding application of the methodology with respect to additionality.			▪		OK
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67	▪ This checklist question will be answered after the CARs/CLs regarding the monitoring		OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			methodology are closed.		
i. Specific questions per methodology regarding application of the methodology with respect to monitoring methodology.			▪		
b. Applicability of the selected methodology to the project activity					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity including that the used version is valid?	VVM	68	ACM0001 Consolidated baseline and monitoring methodology for landfill gas project activities Version 11 is applied for proposed project activities. However version number is not valid. Please updated the version of the baseline and monitoring methodology.	CAR05	OK
i. Does the project activity include installation of a new LFG capture system in an new or existing SWDS?	ACM 0001	Version 11	The project activity is a greenfield energy plant.	OK	OK

Table 3 Validation Requirements Based on the Gold Standard Passport Requirements (Version 2.1)

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
A. Project Title					
a. Is the Project title given in the Passport the same as in the PDD?	T-1.6	DR	In the PDD and GS Passport, the project title is given as: *"Kayseri Molu Landfill Gas to Electricity Project, Turkey"*	OK	OK
B. Project Description					
a. Is the Project description given in the Passport consistent with the one given in the PDD?	T-1.6	DR	The project description given in the GS Passport is consistent with the given in the PDD.	OK	OK
b. Has the estimated start date of construction been given under the Project description?	Annex R	DR	The start date of construction has been given under the Project description.	OK	OK
C. Proof of project eligibility					
C.1. Scale of Project					
a. Has the scale of the Project activity been defined as per Gold Standard Toolkit Section 1.2.1?	T-1.2.1	DR	The scale of the project activity has been defined as per GS Toolkit under section C.1 of the GS Passport. Scale has been defined as "large-scale" as the project is larger than 15 MW. It is also marked as a voluntary market project (VER).	OK	OK
b. Does the project proponent have a written statement (e.g. in the PDD) against de-bundling of the project? (De-bundling of small and large-scale projects to create micro-scale projects is not allowed.)	T-3.5.1	DR	Please include a written statement (e.g. in the PDD) against de-bundling of the project.	CL04	OK
C.2. Host Country					

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
a. Does the host country have cap on its GHG emissions?	T-1.2.2	DR	Turkey has ratified the Kyoto Protocol however not set any emission reduction target; hence, it is not listed as an Annex B country of the Kyoto Protocol.	OK	OK
b. If the answer to the above question is yes, then has the Project proponent provided an official approval from the relevant local authorities stating that an equivalent amount of allowances will be retired to back-up the GS VERs issued?	T-1.2.2	DR	N/A	OK	OK
c. If the host country does not have a cap on its GHG emissions, has it been stated in the Passport?	T-1.2.2	DR	It is stated under C.3 of the GS Passport that Turkey has ratified the Kyoto Protocol however not set any emission reduction target.	OK	OK
C.3. Project Type					
a. Is the Project a Renewable Energy Supply Project or an End-use Energy Efficiency Improvement Project? (If not, the validation has to be aborted)	T-1.2.3	DR	The project is a renewable energy supply project.	OK	OK
b. Has the Project type and eligibility of the Project activity been defined as per Annex C of Gold Standard Toolkit?	T-1.2.3	DR	The type and eligibility of the Project activity has been defined as per Annex C of Gold Standard Toolkit under section C.3 of the GS Passport. According to the Gold Standard Toolkit, as a wind power plant project with an installed capacity of larger than 15 MW, the project is a Large project and also fits in Renewable Energy Supply category. There is no specific project type eligibility criterion for wind power projects.	OK	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
c. Has a previous announcement of the project going ahead without the revenues from carbon credits been made?	T-1.2.6	DR	It is indicated under section C.3 of the GS Passport that no previous announcement of the project going ahead without the revenues from carbon credits have been made.	OK	OK
d. If the answer to the above question is yes, has the project subsequently been cancelled or the design has been significantly revised?	T-1.2.6	DR	N/A	OK	OK
e. If the answer to question I is no, have the Project Proponents provided a pre-announcement statement under section C.3 in the Gold Standard Passport, attesting that no such previous announcement has been made?	T-1.2.6	DR	Under section C.3 of the GS Passport, a statement has been made about pre announcement. It is indicated that no announcements have been made.	OK	OK
C.4. Greenhouse Gas					
a. Does the project reduce emissions of one or more of the following an GHG? Carbon dioxide, methane, nitrous oxide?	T-1.2.4	DR	It is indicated in Section C.4 of the GS Passport that the project reduces CO_2 emissions.	OK	OK
C.5. Project registration type					
a. Does the project apply the correct project cycle (regular vs. pre-feasibility assessment)?	T-2.5.1	DR	The project activity applies the retro-active project cycle, which is the correct project cycle. The project has gone through the PFA fast-track process.	OK	OK
b. Is the Project activity a regular registration?	T-1.2.6	DR	No, the project activity is not regular registration.	OK	OK
c. Is the Project activity a retroactive registration?	T-1.2.6	DR	Yes, the project activity is retroactive registration.	OK	OK
d. If the answer to the above question is yes, has	T-1.2.6	DR	Yes, the project proponents have applied to	OK	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
the Project proponents applied to the Gold Standard for the pre-feasibility assessment?			Gold Standard for the PFA fast-track process.		
e. If the answer to the above question is yes, then has the Project proponent provided the Gold Standard pre-feasibility assessment feedback to the DOE?	T-2.5	DR	The project has gone through the PFA fast-track process. Therefore, Gold Standard pre-feasibility assessment feedback was not provided. The project is listed in the GS web site.	OK	OK
f. Does the Project activity need preliminary evaluation? (Large hydro or palm-oil related project as defined in Annex C of the Toolkit)	T-2.5	DR	The project activity is a wind power plant; hence does not need preliminary evaluation.	OK	OK
g. If the answer to the above question is yes, has the Project proponents applied to the Gold Standard for the pre-feasibility assessment?	T-2.5	DR	N/A	OK	OK
h. If the answer to the above question is yes, then has the Project proponent provided the Gold Standard pre-feasibility assessment feedback to the DOE?	T-2.5	DR	N/A	OK	OK
i. Has the Project activity been rejected by UNFCCC?	T-2.5	DR	The project is a VER project and due to the position of the host country, the project proponents have never applied for registration under Kyoto mechanisms.	OK	OK
j. If the answer to the above question is yes, has the Project proponents applied to the Gold Standard for the pre-feasibility assessment?	T-2.5	DR	N/A	OK	OK
k. If the answer to the above question is yes, then has the Project proponent provided the Gold Standard pre-feasibility assessment feedback to	T-2.5	DR	N/A	OK	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
the DOE?					
l. Are there any double counting occurring with other certification schemes?	T-3.5.1	DR	There is no double counting with other certification schemes. The project activity is not registered under any known certification schemes that are currently active in the host country.	OK	OK
D. Unique project identification					
D.1. GPS-coordinates of Project location					
a. Has the Project proponent stated the exact GPS coordinates of Project location for point source activities and the boundaries for projects spread over a broader area?	T-1.6	DR	The coordinates belong to the turbine locations of the power plant are given under section D.1 of the GS Passport. The coordinates were verified by the GPS device during the site visit.	OK	OK
b. For Programme of Activity projects have the Project Proponent explained the reasoning behind the definition of the project location and coordinates carefully?	T-1.6	DR	This is not a Programme of Activity project. Hence, the checklist question is N/A.	OK	OK
D.2. Map					
a. Have the coordinates been illustrated with a map? (Optional)	T-1.6	DR	Geographic map are included in the GS Passport.	OK	OK
E. Outcome stakeholder consultation process					
E.1. Assessment of stakeholder comments					
a. Has the Project proponent inserted the “Table iii-Assessment of Stakeholder Comments” which was given under section C3 of the Stakeholder Consultation Report?	Annex R, E.1	DR	Please organize a Stakeholder Feedback Round in line with all the requirements set out in section 2.11 of the Gold Standard Toolkit.	CAR01	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
b. Has the Project proponent given a summary of alterations based on stakeholders comments?	Annex R, E.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
c. Has an invitation tracking table been filled out?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
d. Are copies of invitations published/sent out available?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
e. Has a non-technical summary in local language been included in the LSC Report, as well as an English summary?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
f. Is a participant list presented?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
g. Are stakeholder evaluation forms available?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
h. Are minutes of the meeting(s) available?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
i. Has due account been made on comments received?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
j. If stakeholders required a revisit for the sustainable development assessment, has this been done?	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
k. Is the consolidated sustainable development matrix presented based on own 'preliminary' scoring and the matrix from the outcome of the blind stakeholder exercise.	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
l. Were comments accepted and received by	T-3.5.1	DR	This checklist question will be evaluated after		OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
email or other means actually considered?			*CAR01* is closed.		
E.2. Stakeholder Feedback Round (Can be performed in parallel to the validation process)					
a. Has the Project proponent organized a stakeholder feedback round to give feedback to the stakeholders on how their comments have been taken into account?	T-2.11	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
b. Did the stakeholder feedback round include a physical meeting? (optional)	T-2.11	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
c. Have all the stakeholders invited for participation in the Local Stakeholder Consultation been included in the Stakeholder Feedback Round?	T-2.11	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
d. Have all of the following documents been made available to the public for a period of at least two months prior to completion of the validation: a. The Latest version of the complete PDD (including the EIA, if applicable); b. A non-technical summary of the project (in appropriate local language(s)); and English summary. c. The (revised) Passport d. if applicable, supporting documentation such as an environmental impact assessment (EIA) (if available, in appropriate local language(s)); in the case of an EIA, at least a one-page	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
English summary is required e. Additional, non-translated information must be made available as well and shall be translated to the local language upon any justified request of a stakeholder.					
e. Did the Project proponent also prepare hard copies to be publicly displayed at local places like the post Office, municipality, etc?	T-2.11	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
f. If the Project is a retroactive Project, did the stakeholder feedback round include a site visit by the stakeholders participating in the process?	T-2.11	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
g. If the Project is a retroactive Project, did the Project proponent follow the guidance provided by the Gold Standard in the pre-feasibility assessment?	T-2.11	DR	The project activity applies the retro-active project cycle and follows PFA fast-track process.		OK
h. Does the stakeholder feedback round report given in the Passport include the following information: a. How the feedback round was organized (A description of the procedure followed to invite comments, including addressing all the details of the oral hearing such as place, date, participants, language, local or national Gold Standard NGO supporters, etc.),	T-3.5.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
b. What the outcomes of the feedback round are (All written or oral comments received.) c. How did the Project proponents followed up on the feedbacks. (The argumentation on whether or not comments are taken into account and the respective changes to the project design.)					
F. Outcome Sustainability assessment					
F.1. 'Do no harm' Assessment					
a. Has the Project proponents considered the critical issues for their Project type that are listed in Annex C of Gold Standard?	T-2.4.1	DR	The project is a wind power plant and no critical issues are listed in Annex C of Gold Standard for the wind power plant that.	OK	OK
b. Have the Project participants discussed all of the safeguarding principles with the stakeholders?	T-2.4.1	DR	This checklist question will be evaluated after *CAR01* is closed.		OK
c. Have the Project participants introduced mitigation measures for the safeguarding principles with a medium to high risk?	T-2.4.1	DR	Mitigation measures have been determined for safeguarding principles with a medium to high risk. Al parameters are scored low risk in GS Passport and the mitigation measure is defined.	OK	OK
d. Does the 'Do No Harm' Assessment base on accurate information and have the reference sources been included?	T-3.5.1	DR	'Do No Harm' Assessment is based on accurate information and the reference sources have been included.	OK	OK
F.2. Sustainable Development matrix					

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
a. Has the Sustainable Development Matrix table been inserted in the Passport?	Annex R, F.2	DR	The Sustainable Development Matrix table is inserted in section F.2 of the GS Passport.	OK	OK
b. Has the project been scored on the following indicators?: a. Environmental b. Social c. Technological d. Economic	T-2.4.2	DR	The project has been scored on all of the indicators given in Annex I of the GS Toolkit.	OK	OK
c. Have the corresponding parameters to represent the status of each of the indicators been selected?	T-2.4.2	DR	The corresponding parameters selected to represent the status of each of the indicators.	OK	OK
d. Are the baseline situation and the situation aimed for the project described for each parameter?	T-2.4.2	DR	The baseline situations are defined for all parameters. However, this checklist question will be evaluated after LSC is organized and GS Passport is revised.	OK	OK
e. Are the indicators connected to the localized MDG's (Millennium Development Goals) when possible?	T-2.4.2	DR	The parameters are connected to the localized MDGs.	OK	OK
f. Was the reason for choice of the parameters described?	T-2.4.2	DR	The justification choices are stated in the GS Passport. However, this checklist question will be evaluated after LSC is organized and GS Passport is revised.	OK	OK
g. Have all of the indicators been scored 'negative', 'positive' or 'neutral' in comparison with the baseline situation?	T-2.4.2	DR	This checklist question will be evaluated after LSC is organized and GS Passport is revised.	OK	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
h. If there are any 'negative' indicators, are there any mitigation measures for these indicators?	T-2.4.2	DR	None of the indicators has been scored negative.	OK	OK
i. Has the matrix been filled by the stakeholders during the Local Stakeholder Consultation?	T-2.4.2	DR	This checklist question will be evaluated after LSC is organized and GS Passport is revised.		OK
j. Were there any negative scores during the stakeholder consultation?	T-2.4.2	DR I	This checklist question will be evaluated after LSC is organized and GS Passport is revised.		OK
k. If the answer to the above question is yes, has the sustainability assessment been revisited?	T-2.4.2	DR	This checklist question will be evaluated after LSC is organized and GS Passport is revised.		OK
l. Have the project indicators been classified in three categories namely "environment", "social development" and "economic and technological development" under the sustainable development matrix?	Annex I	DR	The indicators have been classified in three categories namely "environment", "social development" and "economic and technological development" under the sustainable development matrix.	OK	OK
m. Does the project contribute positively to least at two of the three categories and neutral to the third category?	T-2.4.2	DR	This checklist question will be evaluated after LSC is organized and GS Passport is revised.		OK
n. Is the matrix based on existing sources of information? (can include data from existing reports, results from stakeholder consultations, and experiences with similar pr ojects in similar situations, etc. Where data are unavailable or are of poor quality, or severely outdated, independent opinions and expert judgments can also be used.)	T-3.5.1	DR	This checklist question will be evaluated after LSC is organized and GS Passport is revised.		OK
o. Are the data or expert opinions presented in a sufficient degree of detail and transparency?	T-3.5.1	DR	The matrix is based on existing sources of information.	OK	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
p. Are the data uncertainties clearly stated, if possible with associated margins of error?	T-3.5.1	DR	It is stated in the PDD that all data presented in the baseline calculations are provided from official sources as mentioned in related footnotes. Therefore, uncertainties of data sets were not estimated.	OK	OK
q. Is the scoring reproducible and verifiable?	T-3.5.1	DR	This checklist question will be evaluated after LSC is organized and GS Passport is revised.		OK
r. Does the project demonstrate clear benefits in terms of sustainable development?	T-2.4.2	DR	The project demonstrates clear benefits in terms of sustainable development.	OK	OK
G. Sustainability Monitoring Plan					
a. Are the mitigation actions included in the monitoring plan?	T-2.4.3	DR	The mitigation actions are included in the monitoring plan.	OK	OK
b. Are all the non-neutral indicators included in the monitoring plan?	T-2.4.3	DR	All the non-neutral indicators are included in the monitoring plan	OK	OK
c. Is the current status (or expected status under the baseline) of the parameters, the future status and the way they will be monitored described in the monitoring plan?	T-2.4.3	DR	The current status of the parameters, the future status and the way the parameters will be monitored is described in the monitoring plan.	OK	OK
d. Have the project proponents identified parameters that can be used to properly monitor each non-neutral Sustainable Development Indicator according Annex I of the Toolkit?	T-2.4.3	DR	The selected parameters that can be used to properly monitor each non-neutral Sustainable Development Indicator are in line with the Annex I of the Toolkit. The parameters are measurable.	OK	OK
e. Are chosen parameters relevant to the indicators?	T-3.5.1	DR	The chosen parameters are relevant to the indicators.	OK	OK
f. Are these parameters planned to be monitored	T-2.4.3	DR	The monitoring frequencies of the parameters	OK	OK

CHECKLIST QUESTION	GS Ref.	MoV	COMMENTS	Draft Concl	Final Concl
over the crediting period and on a recurrent basis?			are defined as monthly and continuous.		
g. Are all mitigation measures put in place to prevent violation or the risk of violating a safeguarding principle of the 'Do No Harm' Assessment or to 'neutralize' a Sustainable Development Indicator included in the monitoring plan?	T-2.4.3	DR	All of the mitigation measures are included in the SD Monitoring Plan.	OK	OK
h. Is the sustainability monitoring plan clear about who will monitor with what frequency?	T-3.5.1		The SD Monitoring plan is clear about who will monitor the parameters.	OK	OK
i. Is the monitoring plan feasible?	T-3.5.1		This section will be reviewed after all the CLs and CARs about the SD Monitoring plan are closed.		OK
ANNEX 1 ODA declaration					
a. Does the project receive ODA under the condition that the credits coming out of the project are transferred to the donor country?	T-3.5.1	DR	The project does not receive ODA under the condition that the credits coming out of the project are transferred to the donor country.	OK	OK
b. Is a scanned copy of the Official Development Assistance Declaration statement signed by the project owner given in Annex 1?	Annex D	DR	The scanned copy of ODA statement signed by the project owner is given Annex 1 of the GS Passport.	OK	OK

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 and 2	Summary of project owner response	Validation team conclusion
CAR01 Please organize a Stakeholder Feedback Round in line with all the requirements set out in section 2.11 of the Gold Standard Toolkit.		SFR took place between 24th of December 2011 and 06.04.2012. During SFR a meeting was took place in the village of Molu for stakeholders to inform them on the project. Output of the SFR is added to the Gold Standard Passport	**Review 1:** Output of Stakeholder feedback round has been mentioned in E.2 and Annex 2 of the GS Passport. **The corrective action request is closed.**

CAR02 The starting date of the project activity is defined as electromechanical contract signature which is 24/04/2011. However the electromechanical contract signature date is indicated as 29/04/2011 in provided document.		Starting date of the project activity is the date of construction on site which is 01/07/2011. However, the electromechanical contract date was on 29/04/2011. This has been corrected in PDD version 2. Response 2: starting date of the project is revised as the earliest date of real action which is signature date of electromechanical contract as 24/04/2011 Response 3: Starting date of the project is corrected as	**Review 1:** Starting date of the project activity is changed as 01/07/2011. However this is not in line with the (*CDM Glossary of Terms*, Version 03) *"The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins"* Please clarify. **The corrective action request is still open.** **Review 2:** The starting date of project activity is changed as electromechanical contract date. The date of contract is still indicated as 24/04/2011 in table 5 and section C.1.1 of the PDD version 03. **The corrective action request is still open.**

CAR03 The PDD contains a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation. The project activity is a biogas power plant located close to Molu village Koca Sinan district in the province of Kayseri in Turkey. Kayseri Molu Landfill Gas to Electricity project is planned to produce electricity by using landfill gas. However installed capacity of the project is not indicated. Also please check the unit (kWe) of Table 1 Amount of electricity to be produced in the project		The total capacity of the project which is consist of two electricity motors is added to the PDD, page 2. The table one which is stating output capacity of the engine is deleted from the PDD. Response 2: the project now consist of 3 biogas driven genset with different capacities each. The first engine has 1355 kW capacity, the second engines has 1305 kW capacity and the third one is 1357 kW capacity. Thus in total, the project has three genset with capacity of 4.017 MWe. The explanation is also revised in PDD version 03. Please find data sheet of the engines as Annex1a, Annex1b, Annex1c. Response 3: the licence has not been issued yet but please find the revision request of EPDK for Her Enerji as annex1. In the document the plant capacity is corrected as 4.425 MWe, which is also corrected in IRR documents. This made a small change in IRR calculation which is revised through whole document set.	**Review 1:** The total capacity of the project is defined as 2.865 MWe. The project has two biogas driven gensets with capacity of 1355kWe each. However the total capacity of the project activity is (1355 x 2) 2.710MWe. Please clarify. Please also indicate the installed power capacity in MWm and MWe in section A.2. **The corrective action request is still open.** **Review 2:** The installed capacity of the generators have been cross-checked with data sheets. Please provide the revised licence. **The corrective action request is still open.**

CAR04 The baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board. The selected methodology and tools as follows: • ACM0001 "Consolidated baseline and monitoring methodology for landfill gas project activities" Version 11. Please also indicate used tools for the proposed project activity.		The methodological tools that are applicable under applied methodologies are added to the PDD page: 7	**Review 1:** Used tools have been defined as; • "Combined tool to identify the baseline scenario and demonstrate additionality version" 04.0.0 • "Emissions from solid waste disposal sites" version 6.0.0 • "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" version 01 • "Tool to determine project emissions from flaring gases containing methane" version 01. • "Tool to calculate the emission factor for an electricity system" version 02.2.1 • "Tool to determine the mass flow of a greenhouse gas in gaseous stream" version 02.0.0 **The corrective action request is closed.**

CAR05 ACM0001 Consolidated baseline and monitoring methodology for landfill gas project activities Version 11 is applied for proposed project activities. However version number is not valid. Please updated the version of the baseline and monitoring methodology.		The version of Methodology is revised as Version 13. Response 2: the table showing baseline emission and emission sources is revised according to the version 13 of the applied methodology.	**Review 1:** The version of methodology is revised as version 12. Baseline emissions are defined under title "Emissions from electricity consumption" in table 3 Please revise the table in line with the ACM0001 Table 1: Summary of greenhouse gases and sources included in and excluded from the project boundary. **The corrective action request is still open.** **Review 2:** Table 3 Emissions within project boundaries table is revised according to ACM0001 Version 13. **The corrective action request is closed.**

CAR06 As per the information provided by the PP, the site experiences a mean annual precipitation of 330 mm and Mean annual temperature of 10 oC. Hence the consideration of default value for decay rate for the different waste types (from the Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site") as Boreal and temperate is correct. However, for the selection of values under "Boreal and Temperate", the ratio between the mean annual precipitation and the potential evapotranspiration (MAP/PET) is not provided.		Both Potential Evapotraspiration PET [mm/y] and Medium Average Precipitation MAP [mm/y] data is added under Molu calculation tool of methodological data page. Thus the data of MAP/PET is lower than 1. This information with sources is added to the PDD page:38.	**Review 1:** Medium Average temperature MAT, Medium Average Precipitation MAP, Potential Evapotranspiration PET and MAP/PET ratio have been provided in meteorological data section of the Kayseri_Molu_Calculation_Tool_20120522. This information is indicated in page 44 of the PDD version02. **The corrective action request is closed.**
CAR07 Also, it is noted that there is inconsistency in the values mentioned for the above parameters between the PDD and the emission reduction calculation sheet.		Inconsistency between PDD and emission reduction calculation sheet is eliminated.	**Review 1:** Emission reduction values have been corrected between PDD and emission reduction calculation sheet. **The corrective action request is closed.**

CAR08 Further, following parameters are not identified as Ex-ante parameters in Section B.6.2 as per "Tool to determine the mass flow of a greenhouse gas in a gaseous stream". 1. Universal Ideal gas constant 2. Molecular mass of applicable greenhouse gas (methane).		As per Tool to dermine the mass flow of a greenhouse gas in a gasesous stream, the parameters as; Universal ideal gas constant Molecular mass of applicable greenhouse gas (methane) are added defined as Ex-ante parameters.	**Review 1:** Universal ideal gas constant and Molecular mass of greenhouse gas (methane) parameters have been added in section B.6.2 as per "Tool to determine the mass flow of a greenhouse gas in a gaseous stream" **The corrective action request is closed.**
CAR09 In section B.7 of the PDD, the calibration procedures, frequency of calibration and responsibility of the calibration are not described for each of the monitoring equipments		Calibration procedure is added to each parameter under section B.7	**Review 1:** Calibration procedure is added for each parameters under section B.7 **The corrective action request is closed.**
CAR10 Please provide technical specifications for this gas engine in order to confirm the capacity		Please find specification of gas engine as attached annex 1a, annex1b, annex1c.	**Review 1:** Gas engine data sheet provided. This question will be evaluated after CAR03 is closed. **The corrective action request is still open.** **Review 2:** Data sheets have been provided to DOE. **The corrective action request is closed.**

CAR11 1. Please give the breakdown of the project investment and if necessary aplly different depreciation periods for different assets. In addition if there is vat on asset prices please deduct the amount in the following years. 2. In pdd it is stated that Annual power generation is 11,200 MWh but in IRR analysis it is taken as 8.000. Please explain the difference. 3. The irr figures in pdd (file name: PDD_Kayseri Molu LF_2011-11-21) is not the same as in irr file (file name: IRR_Molu_GPP_2011-11-24) 4. Please confirm that bank debt is not used to finance project investment. Please take out the Euribor sheet from the irr file if it is not used anywhere else.		1. Breakdown for the project investment is given in IRR_landfill_20120522.xls. There is no VAT on assets except transmission line and this cost is low to be mentioned.	**Review 1:** 1. Breakdown for the project investment is given in IRR_landfill_20120522.xls. There is no VAT on assets except transmission line and this cost is low to be mentioned. Breakdown presented is not enough in terms of seeing the depreciation period differences. Please give the breakdown in detail so that we can see the construction and Electromechanic Equipments costs separately then apply different depreciation periods for each asset classes. 2. The annual generation is corrected according to the revised license both in PDD and revised IRR calculation. Please find revised license as Annex2a and Annex2b. 2.865MW is used in IRR analysis and it is stated as it is in PDD. 3.The name of IRR calculation sheet revised as IRR_KayseriMolu_Landfill_20120522.xls 4. The bank debt is not used to finance the project and Euribor is deleted from excel file **The corrective action request is still open.**

			Review 2: All corrections have been made. **The corrective action request is closed.**
CL01 A brief description of the project activity covering purpose is provided under section A.2 of the PDD version 01. The purpose of the proposed project activity is to generate electricity by using the existing landfill area and to reduce greenhouse gas emission. Please provide a brief description of the project activity that includes the scenario existing prior to the start or project, present scenario and baseline scenario under section A.2 of the PDD.		A brief description of the scenario existing prior to the start of the project is added under section A.2 of the PDD	**Review 1:** Prior conditions have been defined under section A.2 of the PDD. Kayseri Molu Landfill is unmanaged solid waste disposal sites where methane emission was not destroyed. **The clarification request is closed.**
CL02 Please refer to the UNFCCC CDM web site for the most recent list of the small-scale CDM project activity categories contained in Appendix B.		Project is not a small scale project activity, that is why related section is deleted from PDD.	**Review 1:** Small scale mention is deleted from PDD. **The clarification request is closed.**

CL03 Please justify the choice of project type and category for the proposed project activity under section B.2.		Justification is added under section B.2	**Review 1:** Justification is added in section B.2 **The clarification request is closed.**
CL04 The responsibilities for data collecting and archiving has been identified. Responsibilities for the data processing and management lie with Her Enerji. Please include Organizational chart for the project		Organizational Chart is added to the PDD	**Review 1:** Organizational chart is added under title of Monitoring Organisation **The clarification request is closed.**
CL05 The expected lifetime of the project activity is defined as 10 years. Please also give in years and months format. Please provide reference for the technical lifetime of the equipment.		The project lifetime is provide in years and months format in PDD. While technical lifetime cannot be provided by equipment provider, the contract for landfill usage with municipality is 10 years and cannot go beyond. Response 2. Project life time is revised in PDD version 3. Response 3: project lifetime is defined according to the tool and indicated in the revised PDD version 4.	**Review 1:** The project lifetime is not provide in years and months format in section C.1.2. of the PDD. **The clarification request is still open.** **Review 2:** Project lifetime is defined as 10 years in section C.1.2 of the PDD. **The clarification request is closed.**

CL06 It is not identified that how many times crediting period will be renewed under section C.2.1 of the PDD. Please clarify.		The proposed project activity adopts a fixed crediting period, i.e. 10 years (01/01/2012-31/12/2021); Response2: The Project is commisioned on 31.10.2011 as it is stated in the first paragraph of the license revision application as annex2. We would like to start the crediting period from 01.01.2012 to 31.12.2021 which is 10 years period. Response 3: there are only provisonal acceptance for the first and second engine. The third engine will be in operation in the mid of 2013. Please find acceptance of two engines are annex2a and 2b.	**Review 1:** The fixed crediting period is chosen. Please provide the objective evidence for the starting date of crediting period. **The clarification request is still open.** **Review 2:** Corrections have been done. **The clarification request is closed.**
CL07 The length of the first crediting period is defined only years. Please also provide years and months format.		The length of crediting period is revised as fixed 10 year crediting period and related section is revised in PDD.	**Review 1:** The fixed crediting period is chosen. **The clarification request is closed.**
CL08 The flow diagram is not clear which don't shows the connection point under section B.3 of the PDD. Please clarify.		Project boundary is revised with the connection point to the grid in PDD page: 10.	**Review 1:** Figure 1. Flow diagram of project boundary is revised under section B.3 of the PDD. **The clarification request is closed.**

CL09 Under section B.7.2 Figure 3 pressure parameter is stated twice. Please clarify.		It is revised from figure 3 of PDD.	**Review 1:** Figure 3 is corrected. **The clarification request is closed.**
CL10 Please clarify the parameter of "P_{LFG} : Pressure of the landfill gas" is monitored or not under section B.7.1 of the PDD.		P_{LFG} is revised as P_h per Tool and will ve monitored as indicated in page 56 of PDD.	**Review 1:** Pressure of the gaseous stream in the hour P_h is added in monitoring parameters in section B.7.1 of the PDD. **The clarification request is closed.**
CL11 The ex-ante calculations of emission reductions are also done using the above values. However, in section B.6.2, the default values as provided by IPCC 2006 Guidelines for National Greenhouse Gas Inventories (Volume 5) are mentioned. Please clarify		For ex-ante calculation as provided by "Methodological Tool: Emissions from solid waste disposal sites" (Version 06.0.0) there are values to be used as default values from IPCC 2006 Guidelines, that is why that IPCC is mentioned.	**Review 1:** Corrections have been done. **The clarification request is closed.**

CL12 It was also informed that during the collection and transportation of the MSW from the City of Kayseri, significant recycling happens. Since the waste generation amount is based on the population study, it is not clear whether the Total amount of waste (prevented from disposal), includes this recycled waste. Please clarify.		Recycling happens from very early start of waste, even in front of houses, however, the recycling that happens is not significant. Additionally, it is assumed that recycling happens for non Bio-degradable Waste which does not have positive impact on methane generation. Moreover during validation meeting, related department of environmental services confirmed the waste data of feasibility study which was taken into account for baseline study.	**Review 1:** Recycling procedure is explained for Kayseri Molu Landfill. **The clarification request is closed.**
CL13 It is not clear what provisions are implemented to monitor/demonstrate the above (moisture content/absolute humidity). Please clarify.		Moisture content/absolute humidty) will be measured per tool "Tool to determine the mass flow of a greenhouse gas in a gaseous stream" (Version 02.0.0). The tool provides several options for the determination of the moisture content of the gaseous stream. As described in part (b) of Option A, the temperature (Tt) of the gaseous stream will be measured and it shall be demonstrated that it is less than 60ºC (333.15 K) at the flow measurement point. For further clarification please see PDD page: 22.	**Review 1:** Monitoring procedure of moisture content/absolute humidity is defined under section B.6.1 Option A is selected for demonstrating moisture content. According to the Option A that the gaseous stream is dry. **The clarification request is closed.**

CL14 The extraction system consists of three blowers of capacity of 40 KW each. However, these equipments are not considered for the calculation of project emissions. Please clarify.		While extraction system will consume electricity which shown in Figure 1 of PDD page 10 of project boundary, the electricity consumption will be measured as electricity withdrawn from the grid. And Project emission will be calculated on this basis, however while energy consumption is not clear yet, for simplicity in ex-ante calculation it is assumed to be zero, but it will be calculated in ex-post calculation.	**Review 1:** Electricity consumption of three blowers will be calculated in ex-post calculation. FAR is raised for this clarification request. **The clarification request is closed.**
CL15 There is no procedure to determine the average value of CH_4 and O_2 content in the LFG in a time interval (not greater than an hour). Please clarify under section B.6. through the applied methodology.		While PDD is revised on version 13 of ACM0001, the procedure to determine the average value of CH_4 and O_2 content in the LFG in a time interval is added as per tool "Methodological Tool to determine the mass flow of a greenhouse gas in a gaseous stream" Version 02.0.0 under section B.6.1 step A.2	**Review 1:** ACM0001 version 12 mention is still indicated 8 times in PDD. The procedure to determine the average value CH4 and 02 content in the LFG in a time interval is added under section B.6.1 step A.2 through "Methodological Tool to determine the mass flow of a greenhouse gas in a gaseous stream" Version 02.0.0 **The clarification request is closed.**

CL16 The control panel shows monitoring of following parameters. 1. Total amount of landfill gas captured, 2. Amount of landfill gas flared 3. Amount of landfill gas combusted in the gas engine 4. Methane fraction in the LFG Please clarify what the procedure to store and archive the above data are?		The procedure to collect and achieve the data is provided under section B.7.2 in PDD page 65-69	**Review 1:** Landfill gas flow from the landfill (V_t), landfill gas flow into flare ($FV_{RG,h}$), Landfill gas into power plant ($LFG_{electricity}$), Methane content in the landfill gas ($V_{CH4,h,db}$) parameters will be monitored automatically electrical control system. All process parameters will be stored in the monitoring station on the landfill site. All data and records for verification will be kept for two years after the end of the project. **The clarification request is closed.**
CL17 Continuous measurements of all the above parameters are being done. However there is no procedure to determine the average value for all the above monitored parameters in a time interval (not greater than an hour). This is required as per the applied methodology.		The sentence below is added to the monitoring parameters for determination of average values: "average value in a time interval not greater than an hour will be used in the calculations of emission reductions" Response 2: The sentence as "The measurement interval will be equal to or more than one sampling each hour" is added to the monitored data in revised PDD for a method to find the average.	**Review 1:** Please clearly define the how get the average value for all parameters. **The clarification request is still open.** **Review 2:** The definition is added in PDD. **The clarification request is closed.**

CL18 It was noticed that the location of temperature and pressure measurement are different. While the temperature measurement is happening before the booster (blower) system, the pressure measurement happens after the booster (blower) system. This will result in inaccurate calculation of mass flow rate of Total LFG, (which is one of the parameter in the ex-post determination of emission reductions). Please clarify under section B.7.2 of the PDD.		There is both measurement of Pressure and Temperature of LFG in the booster which is saved and will be used for ex-post calculation. Response 2: The measurement of pressure and temperature is after the booster. This is clearly indicated in revised PDD version 03. Response 3: the measurement of pressure and temperature is after the booster as indicated in PDD version 4, section B.7.2, page 64, figure 3.	**Review 1:** Please indicate the measurement point of pressure and temperature of LFG before the booster or after the booster **The clarification request is still open.** **Review 2:** Please indicate page number or section. **The clarification request is still open.** **Review 3:** Corrections have been done. **The clarification request is closed.**

CL19 At the time of site visit, only a single gas engine and a flaring system were noted for combusting the LFG. However, the PP has to clarify the source of electricity for the administrative building provided at the site, where heaters and other equipments (utilizing electricity) are provided. This may be a source for project emissions, since the administrative building was set up (exclusively) because of the project activity.		Electricity consumption for plant operation will be taken into account for ex-post calculation, but for simplicity it is not assumed for ex-ante calculation.	**Review 1:** Project emissions have been defined electricity consumption and fossil fuel consumption in the emergency genset, these parameters will be calculated ex-post option. **The clarification request is closed.**
CL20 1. Volumetric fraction of methane component in the residual gas 2. Volumetric flow rate of the residual gas in dry basis 3. Volumetric fraction of O2 in the exhaust gas of the flare 4. Concentration of methane in the exhaust gas of the flare in dry basis. However, these parameters are not identified in section B.7.2. Further, during site visit, it is not clear what provisions are implemented to monitor the parameters 3 and 4 above. Please clarify.		Response1: The point 1 is already monitored after the booster, and it will be same in the residual gas and already identified in B.7.2, page 64 There is no need to monitor point 3 and 4, while monitoring of this parameter is only applicable in case of enclosed flares and continuous monitoring of the flare efficiency. Point 2 is already identified in B.7.2, page 64	**Review 1:** Corrections have been done. **The clarification request is closed.**

CL21 The OM calculations in the corresponding Excel sheet are OK. However, the values for year 2010 used in the calculations do not match with the PDD: Table 13 and Table 14 need to be corrected so as to comply with the Excel calculations. Although 20% of year 2010 total generation is computed correctly, the year is wrongly stated as 2009 in cell C422 in the corresponding Excel sheet. The PDD is correctly referring to year 2010. The Excel document does not include all calculations of the BM emission factor. Tables 16 in the PDD, the most critical calculations, are not included in the Excel file. They need to be provided for verification. Calculations for emission reductions from waste management are given in the PDD, but not included in the Excel file. They need to be provided for verification ACM0001 highlights that CO2 emissions from on-site electricity use may be an important emission source and should be included in the project boundary. In the calculations however, despite mentioning that emissions due to electricity consumption are expected, project emissions are assumed to be zero. This assumption is not acceptable.		The table 13 and 14 in PDD is corrected to comply with excel sheet CM-Kayseri_Landifll version 04. And also the number of tables are wrongly stated in the text PDD which is corrected in PDD version 04. The cell C422 is corrected in Excel file version CM-Kayseri_Landifll version 04. The table 15 and 16 of the BM calculation is provided in "latestPPs-BM&CM" the cell number is J260. Calculation for emission reduction from waste management is provided in the excel sheet named "Kayseri_Molu_Calculation_Tool_version 04" which is another excel file beside CM calculation excel file for calculation of emission from waste management. Please find both excel file as Annex of the protocol. Why is it not acceptable? Project emission due to electricity consumption is considered and formula is provided for calculation of ex-post. The data will be monitored. Right now we do not know how much electricity will be consumed, how can we provide an estimation?	**Review 1:** Corrections have been done. **The clarification request is closed.**

The PDD text referencing of tables does not match with the table numbering (e.g. p.29 refers to Table 11 as Total CO2 emissions whereas this is included as Table; similarly, all other table numbers have wrong references). The PDD p.33 refers to wind power generation, which is not the case. The weights employed are not those for wind projects and correct for the given landfill project - thus the computations are no affected, correcting the reference to wind will do. The Excel file is missing several critical calculations as outlined previously. Please clarify all requested changes.		The table numbers are corrected in revised PDD version 04. It is revised. Please find excel file for Cm calculation and emission reduction calculation from waste management separately.	
FAR01 It was informed by the plant operating personnel that there is no mixing of any auxiliary gas to boost calorific value of LFG or as a start up fuel for the Engine or the flare system. However, it is to be confirmed during the DOE site visit for verification. If it is found that some auxiliary fuels are being utilized, the corresponding amount of fuel should be accounted for project emissions.			

FAR02 Project consists of three blowers their electricity consumption will be monitoring ex-post calculation. Please verify the project emission in verification process.			

Bookmark

Contract No.	CER1345.11.C45/2012
Project title	Kayseri Molu Landfill Gas to Electricity Project, Turkey
GS-PDD version	08
GS-PDD date	24/03/2014
GSC Period	June 2012 to May 2019
Final PDD version	08
Final PDD date	24/03/2014
Methodology A and version	ACM0001 Version 13
Methodology B and version	-
Crediting period	01.01.2012 to 01.01.2022
Site visit date	26-27/12/2011
FVR Sign-off date	29/07/2013
ER	576,686 belong to all crediting period.
Project owner	Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S.
Project buyer	N/A
Consultant	FutureCamp Turkey
Client	Her Enerji ve Cevre Teknolojileri Sanayi Ticaret A.S.
Project location	Kayseri Province in Turkey

Team Leader	Mr. Mehmet Kumru
Team Member	N/A
Technical Reviewer	Mr. H.B.Muralidhar