

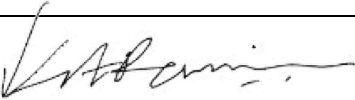


**Verification and certification report form for
CDM project activities
(Version 02.1)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor, Malaysia UNFCCC Ref No: 2467 TN Ref. No: MY-PVer 18/16 – 18/056
Version number of the verification and certification report	1.0
Completion date of the verification and certification report	10/04/2019
Monitoring period number and duration of this monitoring period	Monitoring Period: 1 Duration of MP: 28/08/2016 – 31/12/2017 (both dates inclusive)
Version number of the monitoring report to which this report applies	1.2
Crediting period of the project activity corresponding to this monitoring period	2 nd renewable crediting period (7 years) 28/08/2016 – 27/08/2023 (include both days)
Project participants	KUB-Berjaya Enviro Sdn. Bhd. (KBE)
Host Party	Malaysia
Applied methodologies and standardized baselines	ACM0001 version 18.0 – “Flaring or use of landfill gas”
Mandatory sectoral scopes linked to the applied methodologies	Scope: 13 / Technical Area: 13.1
Conditional sectoral scope(s) linked to the applied methodologies	N/A
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	364,568 tCO ₂ e
Certified amount of GHG emission reductions or GHG removals for this monitoring period	342,427 tCO ₂ e
Name and UNFCCC reference number of the DOE	TÜV NORD CERT GmbH UNFCCC Ref. No.: E-0022

Name, position and signature of the approver of the verification and certification report	 Kunal Rami Final Approver
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SECTION A. Executive summary

KUB-Berjaya Enviro Sdn. Bhd has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic (CPII) verification of the project:

“Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia”

with regard to the relevant requirements for CDM project activities.

This verification covers the monitoring period from 28/08/2016 – 31/12/2017 (including both days).

The project activity is registered with UNFCCC on 28/08/2009 and registration ID 2467 with a renewable crediting period. The 2nd crediting period starts from 28/08/2016 – 27/08/2023 (including both days).

The project activity reduces GHG emissions due to avoidance of methane emission from landfill which the gas is recovered, flared, and utilized for electricity generation

Details of the project location is given in table A-1 below:

Table A-1: Project Location

No.	Project Location
Host Country	Malaysia
Region:	State of Selangor
Project location address:	Mukim Sg. Tinggi, District of Hulu Selangor
Latitude:	03° 30' 16.8" N
Longitude:	101° 28' 42.8" E

Basic technical details of the project are summarized in table A-2.

Table - A-2: Technical data of the project activity

Parameter	Unit	Value
Flare		
Manufacturer	-	Fairyland Environmental Technology, China
No. of units		1
Gas Flow Capacity	m ³ /hr	Maximum – 2,500
Retention Time	second	>0.3 at 800-1,000°C
Gas Blower	-	Twin-lobe root blower
Gas Analyser	-	For CH ₄ and O ₂
Gas Extraction System		
Manufacture		Q2 Engineering Sdn. Bhd., / Q2 A/S Denmark
Type of Gas Extraction System		Gas Wells
Gas Engine and Generator		
Manufacturer	-	MWM MWM MTU
Gross electricity output	MW	1.19 3.12 2
Voltage	KV	11 0.415 11
Number of genset	unit	1 2 1

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., ACM0001, version 18.0: “Flaring or use of landfill gas”.
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 1st periodic verification of CPII, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **342,427 tCO₂e**

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader /	IR	Winter	Rainer	TÜV NORD CERT GmbH	x	x	x	x
2.	Team Member / Technical Expert / Verifier	EI	Cheong	Chun Yuen (Robert)	TÜV NORD Malaysia	x	x	x	x

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	EI	Lubanga	David	-
2.	Approver	IR	Rami	Kunal	TÜV NORD CERT GmbH

SECTION C. Application of materiality

C.1. Consideration of materiality in planning the verification

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Materiality Threshold

The verification is based on the materiality threshold identified in table C-1 below:

Table C-1: Applied Materiality Threshold

	Threshold	Related to
<input type="checkbox"/>	0.5 %	Emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal equal to or more than 500,000 tonnes of carbon dioxide equivalent per year ¹ ;
<input checked="" type="checkbox"/>	1 %	Emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal of between 300,000 and 500,000 tonnes of carbon dioxide equivalent per year;

¹ A year refers to a period of 12 consecutive months.

	Threshold	Related to
<input type="checkbox"/>	2 %	Emission reductions or removals for registered large-scale CDM project activities achieving a total emission reduction or removal of 300,000 tonnes of carbon dioxide equivalent per year or less;
<input type="checkbox"/>	5 %	Emission reductions or removals for registered small-scale CDM project activities other than registered CDM project activities covered under next category below;
<input type="checkbox"/>	10 %	Emission reductions or removals for the type of registered CDM project activities referred to in decision 3/CMP.6, paragraph 38 (referred to as microscale project activities).

Strategic Analysis

At the beginning of the verification the verification team leader has assessed the nature, scale and complexity of the verification tasks by carrying out a strategic analysis of all activities relevant to the project activity. The team leader has collected and reviewed the information relevant to assess that the designated verification team is sufficiently competent to carry out the verification and to ensure that it is able to conduct the necessary risk analysis.

Risk analysis and detailed audit testing planning

For the identification and assessment of potential reporting risks and to determine the necessary detailed audit testing procedures for residual risk areas the following table is used.

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.				

On the basis of the risk analysis the verification has been planned. A detailed audit / verification plan has been prepared and submitted to the project participant(s) in due time before the site visit.

C.2. Consideration of materiality in conducting the verification

Based on the verification planning the verification has been carried out. The concept of materiality has been considered. A breakdown of the chosen approaches is included in the following table.

Parameter	Approach ⁺	Errors [*] detected	Findings reference	Corrected	Remaining verification risk
Management of SWDS	CDC	<input checked="" type="checkbox"/>	CAR E.6-3	<input checked="" type="checkbox"/>	Not material
Op _{j,h}	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
EG _{PJ,y}	CDC	<input checked="" type="checkbox"/>	CAR E.6-4	<input checked="" type="checkbox"/>	Not material
EG _{EC,y}	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
f _y	CDC	<input checked="" type="checkbox"/>	CL E.8-1	<input checked="" type="checkbox"/>	Not material
T _{EG,m}	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
Flame _m	CDC	<input checked="" type="checkbox"/>	CAR E.6-5	<input checked="" type="checkbox"/>	Not material
V _{t,wb}	CDC	<input checked="" type="checkbox"/>	CAR E.6-6	<input checked="" type="checkbox"/>	Not material
V _{CH4,m,db}	CDC	<input checked="" type="checkbox"/>	CL E.8-2	<input checked="" type="checkbox"/>	Not material
T _t (T _{TT1,GSSF1} , T _{TT1,F2} , T _{TT1,GSS1} , T _{TT1,GSS2})	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
P _t (P _{PT2,F1} , P _{PT2,F2} , P _{PT2,GSS1} , P _{PT2,GSS2})	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
P _{H2O,t,Sat}	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
V _{CO2,t,db}	CDC	<input checked="" type="checkbox"/>	CAR E.6-7	<input checked="" type="checkbox"/>	Not material
V _{O2,t,db}	CDC	<input checked="" type="checkbox"/>	CAR E.6-7	<input checked="" type="checkbox"/>	Not material

Status of biogas destruction device	CDC	<input checked="" type="checkbox"/>	CAR E.6-8	<input checked="" type="checkbox"/>	Not material
FC _{i,j,y}	CDC	<input checked="" type="checkbox"/>	CAR E.6-9	<input checked="" type="checkbox"/>	Not material
EF _{CO2,i,y}	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
NCV _{i,y}	CDC	<input type="checkbox"/>		<input type="checkbox"/>	Not material
Aggregate					Materiality threshold not exceeded

*) incl. omissions and misstatements

+) Verification Approaches:

CDC:

Complete data check of data including all data aggregation steps

NDC:

Non-complete data check – omissions not material

SPL:

Sampling approach (all data available)

ASP:

Acceptance Sampling

COM:

Data check at higher data aggregation levels and sampling at original data levels

The verification was basically carried out as per the verification plan. However, based on the actual situation on-site and the errors, omissions and misstatements identified during the verification minor deviations from the original plan occurred. However, due to the insignificance no major revision of the overall plan was required

SECTION D. Means of verification

D.1. Desk/document review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- The approved revised PDD including the monitoring plan^{/PDD1/}
- the approved revised validation report^{/VAL/},
- the monitoring report, including the claimed emission reductions for the project^{/MR/},
- the emission reduction calculation spreadsheet^{/ER1/}.

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed

D.2. On-site inspection

Duration of on-site inspection: 20/09/2018 & 21/09/2018				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting, MR, Plant Inspection, Equipment, Calibration, Document Review	Bukit Tagar	20/09/2018	Winter, Rainer Cheong, Chun Yuen (Robert)
3.	Review MR, ER calculations, Reporting and Closing Meeting	Kuala Lumpur	21/09/2018	

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mohd Zain	Zainal Fikry	KBE / CDM Manager /IM01/	20/09/2018	Plant Inspection, Calibration reports, MR, Document review	Winter, Rainer Cheong, Chun Yuen (Robert)
2	Abd Aziz	Mustaffa Kamal	KBE / Electrical Engineer /IM01/			
3.	Chen	Saw Ling	Eco-Ideal / Consultant (IM02/	20/02/2018 21/09/2018	Plant Inspection, Calibration reports, MR,	
	Azmi	Khairul Azmeer	Eco-Ideal / Consultant /IM02/			

4.	Mohamad	Noraiza Safia	Eco-Ideal / Consultant /IM02/		Document review	
5	Ishak	Nur Aini	Eco-Ideal / Consultant /IM02/		ER spreadsheet Reporting, Closing Meeting	

D.4. Sampling approach

D.4.1 Sampling during monitoring

<input checked="" type="checkbox"/>	No sampling approach has been used by the PP to determine the monitored parameters				
<input type="checkbox"/>	A sampling approach has been taken for the following monitored parameter(s):				
	Parameter	Sampling approach ¹⁾	Sampling Type ²⁾	Population	Sample Size

¹⁾ Sampling Approaches:

SiRS: Simple Random Sampling
 StRS: Stratified Random Sampling
 SS: Systematic Sampling
 CS: Cluster Sampling
 MSS: Multi-stage Sampling

²⁾ Sampling Types:

PS: Parameter Sampling

D.4.2 Sampling approaches during verification

<input checked="" type="checkbox"/>	No sampling approach has been used by the VT to verify the monitored parameters				
<input type="checkbox"/>	A sampling approach has been applied by the VT for the following monitored parameter(s):				
	Parameter	Sampling approach ¹⁾	Sampling Type ²⁾	Population	Sample Size

¹⁾ Sampling Approaches:

SiRS: Simple Random Sampling
 StRS: Stratified Random Sampling
 SS: Systematic Sampling
 CS: Cluster Sampling
 MSS: Multi-stage Sampling

²⁾ Sampling Types:

AS: Acceptance Sampling
 PS: Parameter Sampling
 COM: Full data check at higher data aggregation levels and sampling at original data levels

During the on-site verification, no sampling approach has been used by the verification team to verify the reported values for the monitored parameters as listed in section D.2 of the MR. All electricity data listed in the ER spreadsheet were 100% checked and reviewed against the submitted electricity protocol and cross-checked with the sales invoices

D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form (E.1)	0	0	0
Compliance of the project implementation and operation with the registered PDD (E.3)	0	1	0
Post-registration changes (E.4)	0	2	0
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines (E.5)	0	1	0
Compliance of monitoring activities with the registered monitoring plan (E.6)	0	10	0
Compliance with the calibration frequency requirements for measuring instruments (E.7)	0	2	0
Assessment of data and calculation of emission reductions or net removals (E.8)	2	2	0
Assessment of reported sustainable development co-benefits (E.9)	0	0	0
Global stakeholder consultation (E.10)	0	0	0
Others (please specify)	0	0	0
Total	2	18	0

SECTION E. Verification findings

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

Means of verification	<p>A draft monitoring report was submitted to the verification team by the project participants. The DOE has made this report publicly available prior to the start of the verification activities. No comments were received.</p> <p>By means of the UNFCCC website, it has been checked whether the latest applicable MR template CDM-MR-FORM has been used.</p> <p>Further, it has been checked whether the latest instructions for filling out the MR template have been followed. Every section has been checked against the respective guidance.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /MRT/ • /unfccc/ 	
Findings	<input checked="" type="checkbox"/>	The latest reporting template CDM-MR-FORM as listed on the UNFCCC website has been used for the Monitoring Report to be uploaded.
	<input type="checkbox"/>	The latest instructions for filling out the MR have been followed. No adverse finding has been identified in the course of this verification.
	<input type="checkbox"/>	The respective requirements have widely been complied with; however; the following issues needed to be addressed in this context:
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs / CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details, please refer to Appendix 4.
	<p>The verification team has checked all sections of the MR and confirms by means of comparing the MR that has been used with the standardized MR template.</p> <p>It could be concluded the MR is completed according to the MR template requirements.</p>	

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

During the validation, the validating DOE might have raised issues that could not be closed or resolved during the validation stage. For this purpose, FARs might have been raised. Likewise, FARs might have been raised in the course of previous verifications.

In the course of this verification the latest version of the PDD and the previous verification report, where applicable, have been checked in order to identify any remaining forward action requests. For the current monitoring period, the following applies:

(i) Open issues from validation:

<input checked="" type="checkbox"/>	There were no open issues which have been addressed in the latest version of the validation report.
<input type="checkbox"/>	All open issues from the validation have been appropriately addressed in the context of previous verifications.
<input type="checkbox"/>	All issues related to the validation have been appropriately addressed in the course of the current monitoring period (for details please refer to appendix 4)
<input type="checkbox"/>	The following issues related to the validation have not yet been appropriately addressed (for details please refer to appendix 4):
	N/A

(ii) Open issues from previous verifications:

<input checked="" type="checkbox"/>	N/A – as this is the first monitoring period of CPII for this CDM project activity.
<input type="checkbox"/>	There were no open issues which have been addressed in the previous verification report
<input type="checkbox"/>	All issues related to the previous verification have been appropriately addressed in the course of the current monitoring period (for details please refer to appendix 4)
<input type="checkbox"/>	The following issues related to the previous verification have not yet been appropriately addressed (for details please refer to appendix 4):
	N/A

E.3. Compliance of the project implementation and operation with the registered project design document

Means of verification	<p>By means of an in-depth review of the approved revised PDD in its latest form as downloaded from the UNFCCC project page site and the checks carried out during the on-site visit an assessment has been carried out whether the project has been implemented and operated in line with the latest approved version of the PDD and whether all physical features of the project are in place.</p> <p>The verification team has checked the information in the monitoring report and compared against the approved revised PDD.</p> <p>During the onsite inspection, the verification team has checked the project location, implementation, technology applied, project equipment, metering and monitoring system and compared against the information in the approved revised PDD.</p> <p>Interviews with operational personnel have been carried out, generation records, equipment / instrument specifications were checked in this context.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /PDD1/ • /MR/ • /ER1/ • /E1-E18/ • /ER8/ • /IM01/ • /IM02/ • /unfccc/ 	
Findings	<input checked="" type="checkbox"/>	The project has been implemented as described in the latest version of the PDD as well as in section B.1 of the monitoring report. No deviations thereof have been identified in the course of this verification.

	<input type="checkbox"/>	The following deviations from the registered project design and or the project description in the MR have been identified in the course of this verification (for further details please refer to section E.4): N/A
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs have been raised: CAR E.3-1
	<i>In case of phased implementation:</i>	
	<input checked="" type="checkbox"/>	N/A
	<input type="checkbox"/>	The phased implementation has correctly and in sufficient detail been described in the latest version of the PDD.
	<input type="checkbox"/>	The description in section B.1 of the MR differs in content or the level of detail from the latest version of the PDD. However, the description in the MR is correct and reflects the situation during the site inspection.
	<input type="checkbox"/>	The project description in the PDD/MR is not deemed sufficient. The detailed implementation timeline is as follows: N/A
Conclusion	<input type="checkbox"/>	No CARs / CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs / CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	During the verification an onsite visit was carried out. On the basis of the site visit and the reviewed of project documentation and after correction it can be confirmed that w.r.t. the realized technology, the project equipment, as well as the monitoring and metering equipment, the project has been implemented and operated as described in the approved revised PDD.	

E.4. Post-registration changes

- ☒ By means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology.
- ☐ Post registration changes have been identified and are assessed in detail in the subsequent steps.

E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines

It has been checked whether Temporary deviations from the registered monitoring plan (TDfrMP) or Temporary deviations from monitoring methodology or standardized baseline (TDfMM) have been applied during this monitoring period. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No Temporary deviations from the registered monitoring plan (TDfrMP) or Temporary deviations from monitoring methodology or standardized baseline (TDfMM).have been submitted to the UNFCCC prior to the current monitoring period.		
<input type="checkbox"/>	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC		
	1	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)
		Appr.date	
		Ref. No.	
	2	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)
		Appr.date	
		Ref.No.	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		

<input type="checkbox"/>	An approval of the following TDfMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.	
1	Issue:	
2	Issue:	
<input type="checkbox"/>	The following TDfMP or TDfMM for which appendix 1 of the PS is applicable have been applied:	
1	Issue:	
2	Issue:	

E.4.2. Corrections

It has been checked whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	During the verification of the current MP no need for corrections has been identified.	
<input type="checkbox"/>	The following corrections have been applied:	
1	Issue:	
2	Issue:	
3	Issue:	
<input type="checkbox"/>	<input type="checkbox"/> A related post registration change has been submitted prior to the issuance request. The approval has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z.	
<input type="checkbox"/>	<input type="checkbox"/> A related post registration change is submitted along with this issuance request. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.	

E.4.3. Change to the start date of the crediting period of the project activity

<input type="checkbox"/>	N/A - as this is not the first verification within the crediting period
<input checked="" type="checkbox"/>	The PPs do not intend to change the start date of the crediting period.
<input type="checkbox"/>	As the change in the start date was below the related time period as indicated in PS § 277 and § 278 no prior approval was required but only a notification. This notification has been submitted by the PP without involvement of the DOE. The change and new start date has been checked from the related UNFCCC project webpage.
<input type="checkbox"/>	The PPs intend to change the start date of the crediting period. As the intended change in start date beyond the related time period as indicated in PS § 279 prior approval by the Board is required. For detailed assessment of the change please refer to related PRC validation report. As per assessment in this report the DOE confirms that the change to the start date of the crediting period are in line with the related requirements of the VVS and PS.
<input type="checkbox"/>	The approval to change the start date of the crediting period has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z

E.4.4. Inclusion of a monitoring plan

<input checked="" type="checkbox"/>	N/A - as this monitoring plan was part of the registered PDD
<input type="checkbox"/>	In line with PS § 281 or § 282 the PP has forwarded a monitoring plan to the DOE for validation. No prior approval of the monitoring plan was required as the PP in line with PS § 282 wished to submit the monitoring plan together with the request for issuance for the first monitoring period. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.

<input type="checkbox"/>	In line with § 282 the PP submitted a monitoring plan prior to the submission of the request for issuance for validation to the DOE. A DOE has assessed the monitoring plan in line with related VVS requirements and submitted a related PRC report for prior approval. The approval has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z.
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E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other applied standards or tools

It has been checked whether any permanent changes from the registered monitoring plan (PCfrMP) or applied methodologies (PCfMM) including standardized baselines (PCfSB) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input type="checkbox"/>	No PCfrMP, PCfMM or PCfSB have been submitted to the UNFCCC prior to the current monitoring period		
<input checked="" type="checkbox"/>	The following PCfrMP, PCfMM or PCfSB have been approved or are under approval by the UNFCCC		
	1	Title	A revision for the monitoring plan for converting Flare No.1 to GSSF1. Gas engine No. 1 which was attached to Flare 2 previously has been converted to GSSF1
		Status	<input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved
		Appr. date	PRC-2467-005
		Ref. No.	21/06/2018
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a PCfrMP, PCfMM or PCfSB has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following PCfrMP, PCfMM or PCfSB is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following PCfrMP, PCfMM or PCfSB for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

E.4.6. Changes to the project design

It has been checked whether any changes to the project design (CoPD) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period		
<input type="checkbox"/>	The following CoPD have been approved or are under approval by the UNFCCC		
	1	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date	
		Ref. No.	
	2	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date	

	Ref. No.	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA	
<input type="checkbox"/>	An approval of the following CoPD is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.	
	1	Issue:
	2	Issue:
<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:	
	1	Issue:
	2	Issue:

E.4.7. Changes specific to afforestation and reforestation project activities

<input checked="" type="checkbox"/>	N/A. The project activity is not an afforestation and reforestation project activities
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E.5. Compliance of the registered monitoring plan with the methodology including applicable tools and standardized baselines

Means of verification	By means of comparison of the MR with (i) the applied CDM methodology (ii) all applicable CDM Meth tools and the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology / tools. The following sources of information have been used in this context: <ul style="list-style-type: none"> • /MR/ • /PDD1/ • /ACM1/ • /ESW/PER/TPL/PLEC/TMF/ • /unfccc/ 								
Findings	<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD) The breakdown of MP accordance of the referenced tools is as follows:							
	<input checked="" type="checkbox"/>	1	<table border="1"> <tr> <td>Title (of the tool)</td> <td>Emissions from solid waste disposal sites</td> </tr> <tr> <td>Version</td> <td>07.0</td> </tr> <tr> <td>MP compliance</td> <td> <input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP) </td> </tr> </table>	Title (of the tool)	Emissions from solid waste disposal sites	Version	07.0	MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)
Title (of the tool)		Emissions from solid waste disposal sites							
Version		07.0							
MP compliance		<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)							
2		<table border="1"> <tr> <td>Title (of the tool)</td> <td>Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion</td> </tr> <tr> <td>Version</td> <td>02.0.0</td> </tr> <tr> <td>MP compliance</td> <td> <input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP) </td> </tr> </table>	Title (of the tool)	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion	Version	02.0.0	MP compliance	<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)	
Title (of the tool)		Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion							
Version		02.0.0							
MP compliance		<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)							
3		<table border="1"> <tr> <td>Title (of the tool)</td> <td>"Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"</td> </tr> <tr> <td>Version</td> <td>02.0.0</td> </tr> <tr> <td>MP compliance</td> <td> <input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A </td> </tr> </table>	Title (of the tool)	"Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"	Version	02.0.0	MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A	
Title (of the tool)	"Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"								
Version	02.0.0								
MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A								

		4	Title (of the tool)	Project emissions from flaring
			Version	02.0.0
			MP compliance	<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)
		5	Title (of the tool)	Tool to determine the mass flow of a greenhouse gas in a gaseous stream
			Version	03.0
			MP compliance	<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)
		6	Title (of the tool)	Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period
			Version	03.0.1.0
			MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)
	<input type="checkbox"/>	The breakdown of MP accordance of the applicable SB is as follows:		
Title (of the SB)				
Version				
MP compliance				
<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:			
	Care E.5-1			
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.		
	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.		
	The applied methodology and prescribed applicable tools are consistent with the versions in UNFCCC website after corrections. No standardised baseline is applied.			

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

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

Means of verification	The verification team has checked the ex-ante parameters and data stated in Section D.1 of MR and compared with section B.6.2 of the approved revised PDD whether all parameters fixed ex-ante for the crediting period have been applied correctly.				
	The following list of ex-ante fixed parameters have been applied:				
	Nbr	Parameter abbreviation	Description	Value	Unit
	1	OX _{top_layer}	Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline	0.1	Dimensionless
	2	GWP _{CH4}	Global warming potential of	25	tCO ₂ e/tCH ₄

		CH ₄																
3	η_{PJ}	Efficiency of the LFG capture system that will be installed in the project activity	90%		Dimensionless													
4	ϕ_{default}	Default value for the model correction factor to account for model uncertainties	0.75		-													
5	OX	Oxidation factor (reflecting the amount of methane from SWDS that is oxidized in the soil or other material covering the waste)	0.1		N/A													
6	F	Fraction of methane in the SWDS gas (volume fraction)	0.5		N/A													
7	DOC _{f,default}	Default value for fraction of degradable organic carbon (DOC) in MSW that decomposes in the SWDS	0.5		Weight Fraction													
8	MCF _{default}	Methane correction factor	1.0		N/A													
9	DOC _j	Fraction of degradable organic carbon (by weight) in the waste type j	<table border="1"> <thead> <tr> <th>Waste Type j</th><th>DOC_j (%wet waste)</th></tr> </thead> <tbody> <tr> <td>Wood & Wood Waste</td><td>43</td></tr> <tr> <td>Pulp, paper & cardboard (other than sludge)</td><td>40</td></tr> <tr> <td>Food, food waste, beverage & tobacco (other than sludge)</td><td>15</td></tr> <tr> <td>Textile</td><td>24</td></tr> <tr> <td>Garden, yard & park waste</td><td>20</td></tr> <tr> <td>Glass, plastic, metal, other inert waste</td><td>0</td></tr> </tbody> </table>	Waste Type j	DOC _j (%wet waste)	Wood & Wood Waste	43	Pulp, paper & cardboard (other than sludge)	40	Food, food waste, beverage & tobacco (other than sludge)	15	Textile	24	Garden, yard & park waste	20	Glass, plastic, metal, other inert waste	0	-
Waste Type j	DOC _j (%wet waste)																	
Wood & Wood Waste	43																	
Pulp, paper & cardboard (other than sludge)	40																	
Food, food waste, beverage & tobacco (other than sludge)	15																	
Textile	24																	
Garden, yard & park waste	20																	
Glass, plastic, metal, other inert waste	0																	
10	k _j	Decay rate for the waste type j	<table border="1"> <thead> <tr> <th>Waste type j</th><th>Tropical (MAT>200 C) <u>dry</u> (MAP≥1000mm)</th></tr> </thead> <tbody> <tr> <td></td><td></td></tr> </tbody> </table>	Waste type j	Tropical (MAT>200 C) <u>dry</u> (MAP≥1000mm)			1/yr										
Waste type j	Tropical (MAT>200 C) <u>dry</u> (MAP≥1000mm)																	

				Slowly degrading	Pulp, paper, cardboard (other than sludge), textile	0.07	
					Wood, wood product & straw	0.035	
				Moderately Degrading	Other (non-food) organic putrescible garden & park waste	0.17	
				Rapidly Degrading	Food, food waste, sewerage sludge, beverage & tobacco	0.40	
	11	$SPEC_{flare}$	Manufacturer's flare specifications for temperature, flow rate and maintenance schedule	Minimum and maximum operating temperature = 0 to 1,200°C Minimum and maximum inlet flow rate = 0 – 2,500 Nm ³ /h			Temperature - °C Flow rate or heat flux – kg/h or m ³ /h
	12	$TDL_{k,y}$	Average technical transmission and distribution losses for providing electricity to source k in year y	7.39 (2016) 7.74 (2017)			%
	13	$EF_{grid,OM,y}$	Operating margin emission factor for the grid in year y	0.6532			tCO ₂ /MWh
	14	$EF_{grid,BM,y}$	Build margin emission factor for the grid in year y	0.7350			tCO ₂ /MWh
	15	$EF_{grid,CM,y}$	Combined margin emission factor for the grid in year y	0.7146			tCO ₂ /MWh
	16	MM_{H_2O}	Molecular mass of H ₂ O	18.0152			kg/kmol
	17	R_u	Universal ideal gases constant	8,314			Pa.m ³ /kmol.K
	18	MM_{CO_2}	Molecular mass of greenhouse gas CO ₂	44.01			kg/kmol

	19	MM _{CH4}	Molecular mass of CH ₄	16.04	kg/kmol
	20	MM _{O2}	Molecular mass of gas O ₂	32.00	kg/kmol
<p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /ER/ • /PDD1/ • /PS/ • /VVS/ • /unfccc/ 					
Findings	<input type="checkbox"/>	The MR and the ER calculation have considered the parameters fixed ex-ante for the crediting period correctly, no deviations have been observed.			
	<input checked="" type="checkbox"/>	The following deviations from the parameters fixed ex-ante or at renewal of crediting period have been identified in the course of this verification: Parameter DOC _j			
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CAR E.6-1			
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.			
	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.			
The data and parameters listed in the section D.1 of MR are cross-checked with the applied methodology, subscribed tools, approved revised PDD, ER and are consistent after correction made.					

E.6.2. Data and parameters monitored

Means of verification	<p>During the verification all monitoring parameters listed in Section D.2 of MR were compared with section B.7.1 of the approved revised PDD have been verified with regard to the:</p> <ul style="list-style-type: none"> (i) appropriateness of the applied measurement / determination method, (ii) the correctness of the values applied for ER calculation, (iii) the accuracy, and applied QA/QC measures. <p>Flare No. 1:</p> <p>ID: T: Temperature of LFG</p> <p>According to applied methodology ACM0001, version 18, page 15, if the LFG is used for multiple purposes (e.g. flaring or energy generation) and all methane destruction devices are verified to be operational (e.g. by means of flame detector records, energy generated), a single flow meter may be used to record the flow into multiple destruction devices.</p> <p>The total LFG captured for Flare No.1 during the period 28/08/2016 to 03/01/2017 is total LFG flared. Flare No.1 has stopped operation on 03/01/2017 and converted to GSSF1.</p> <p>According to the "Tool to determine the mass flow of a greenhouse gas in a gaseous stream" version 3.0, monitoring of T1, temperature of the gaseous stream and in this case is the LFG temperature is below 60°C, the moisture content can be neglected since the measurement in wet or dry basis are not important. In the case where the LFG temperature exceeds 60°C, the same basis for both methane concentration and flow measurement will be considered according to the tool.</p> <p>During the monitoring period, several minutes of each day, the temperature of LFG</p>
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exceeded 60°C. Therefore, option 2 from the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” was selected for the ER calculation. The formula in option B of the tool is applied to adjust the flow rate of the CH₄ to a lower value during the time of the day when the temperature is above 60°C.

The raw data spreadsheets were reviewed to confirm the flow rate is re-calculated before taken into the ER calculations. /ER3/ER1/FRD1/

The average temperature of LFG during this monitoring period is 38.77°C.

Flare No. 2:

ID: FT1 – Total LFG

ID: FT2 – LFG flare

ID: FT3 – LFG electricity

According to the approved revised PDD version 20.5 total LFG (FT1) captured is combusted at the flare (FT2) and gas engine no.1 for electricity generation (FT3). The total LFG captured should be equal to LFG flared and LFG combusted for electricity generation. However, for conservativeness, the project owner has made a comparison on the total LFG captured with the total LFG flared plus total combusted by the gas engine no. 1 and taken the lower of the two values for the baseline emissions calculation.

The monthly comparison of the total values for FT2 + FT3 with volume measured by FT1. The lower value between the two taken for the ER calculation for the period 28/08/2016 to 31/05/2017.

There will be 2 outcomes for this comparison:

1. When FT1 is greater than FT2 + FT3

When FT1 is greater, the total volume of FT2 + FT3 will be applied as the volume of FT1 in the ER calculation as a conservative approach.

2. When FT1 is lower than FT2 + FT3

When FT1 is lower, FT1 volume will be applied in the ER calculation as a conservative approach.

With Gas Engine No.1 is converted to GSSF1 and operations starts from 01/06/2017, only one flow meter (FT2) remained for Flare No. 2, therefore, no comparison from 01/06/2017 until the end of the monitoring period on 31/12/2017.

GSS1 (Gas Engine No. 2 and 3) and GSS2 (Gas Engine No. 4)

According to ACM0001, version 8², page 15 of section III monitoring methodology, the amount of landfill gas generated (in m³ using a continuous flow meter), where the total quantity (LFG_{total}), as well as the quantities fed to the flare (s) (LFG_{flare}), to the power plant (s) (LFG_{electricity}) are measured continuously. In the case where LFG is just sent to the power plants (gas engines) for electricity generation, one flow meter can be used provided that these meters used are calibrated periodically by an officially accredited entity.

The total LFG captured for GSS1 and GSS2 for this monitoring period is the same as the total LFG sent to the GSS1 gas engines 2 & 3 and GSS2 gas engine 4. The amount of landfill gas generated and captured that is channelled to GSS1 and GSS2 is measured continuously by a flow meter for each system.

According to the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” version 3.0, monitoring of T1, temperature of the gaseous stream and in this case is the LFG temperature is below 60°C, the moisture content can be neglected since the measurement in wet or dry basis are not important. In the case where the LFG temperature exceeds 60°C, the same basis for both methane concentration and flow measurement will be considered according to the tool.

During the monitoring period, several minutes of each day, the temperature of LFG

² The ACM0001 - Consolidated baseline and monitoring methodology for landfill gas project activities (Version 8) is no longer valid and is not available for download in UNFCCC. The version has been replaced with Version 8.1.

	<p>exceeded 60°C. Therefore, option 2 from the “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” was selected for the ER calculation. The formula in option B of the tool is applied to adjust the flow rate of the CH₄ to a lower value during the time of the day when the temperature is above 60°C.</p> <p>The raw data spreadsheets were reviewed to confirm the flow rate is re-calculated before taken into the ER calculations for this monitoring period. /ER10-ER12/ER1/GSS1RD/GSS2RD/</p> <p>The results as well as the verification procedure are described parameter-wise in the project specific verification checklist (Appendix 5 table A-5).</p>	
Findings	<input type="checkbox"/>	The monitored parameters are in accordance to the registered PDD.
	<input checked="" type="checkbox"/>	<p>The following have been identified in the course of this verification:</p> <p>CAR E.6-2, CAR E.6-3, CAE E.6-4, CAR E.6-5, CAR E.6-6, CAR E.6-7, CAR E.6-8, CAR E.6-9</p>
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	<p>During the verification all relevant monitoring parameters (as listed in chapter B.7.1 of the approved revised PDD) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist.</p> <p>After corrections, it can be concluded that all monitoring parameters have been measured / determined without material misstatements and in line with all applicable standards and relevant requirements.</p>	

E.6.3. Implementation of sampling plan

Means of verification	<p>The verification team has been checked whether the PPs have applied a sampling approach to determine the monitored values.</p> <p>Further it has been checked whether the PPs have correctly applied the implemented sampling plan including</p> <ul style="list-style-type: none"> (i) description of the implemented sampling design (ii) collected data (iii) analysis of collected data (iv) demonstration on whether the required confidence/precision has been met. <p>The following sources of information have been used in this context.</p> <ul style="list-style-type: none"> • /MR/ • /ER/ • /PDD1/ 			
Findings	<input checked="" type="checkbox"/>	The PPs have not applied sampling approaches for the parameters monitored.		
	<input type="checkbox"/>	The PPs have applied sampling approaches for the following parameters monitored.		
		1	Parameter:	
			Name:	
		Description on how the sampling efforts and survey comply with the validated sampling plan:		
	2	Parameter:		
		Name:		

		Description on how the sampling efforts and survey comply with the validated sampling plan:	
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:	
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.	
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.	
	No sampling was applied to determine the monitored parameters.		

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

Means of verification	<p>During the verification, the relevant monitoring equipment have been checked whether the calibration requirements have been met; especially if the calibration frequency is in line with the requirements of the approved revised PDD and / or the applicable calibration standards.</p> <p>The calibration frequency of the electricity meters, flow meters, temperature transmitters, pressure transmitters and methane gas analysers are crosscheck with the approved revised PDD against the calibration reports.</p> <p>The calibration frequency, validity and calibration dates for all instruments are listed in Appendix 6. The calibration records cover the monitoring period are maintained and verified by the verification team.</p> <p>The results as well as the verification procedure are described instrument-wise in the project specific verification checklist Appendix 5.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /CF11 to CF17/ • /CF21 to CF211/ • /CF31 to CF38/ • /CF41 to CF46/ • /CF51 to CF54/ 		
Findings	<input checked="" type="checkbox"/>	Inconsistencies of the calibration information with calibration reports.	
	<input type="checkbox"/>	<p>Based on the assessment and information as per appendix 5 delay(s) in calibration have been identified. The PP has applied the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</p> <p>From the related calibration certificates and emission reduction calculation the verification team confirms that the maximum permissible error has been applied in a conservative manner so that the adjusted measured values due to the delayed calibration result in fewer claimed emission reductions.</p> <p>For details please refer to appendix 6</p>	
	<input type="checkbox"/>	The metering diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology	
	<input checked="" type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CAR E.7-1, CAR E.7-2</p>	
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.	
	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.	
	The calibrations for all measuring instruments have been verified as listed in		

	<p>Appendix 6 of this report.</p> <p>Based on the details listed in appendix 6 the verification team could confirm that all installed monitoring equipment have been duly calibrated.</p> <p>It could be concluded, after due calibrations have been conducted; the above findings have been closed out.</p> <p>The monitoring and instruments diagram is in accordance with the actual situation implemented at project site.</p>
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E.8. Assessment of data and calculation of emission reductions or net removals

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

Means of verification	<p>According to the approved revised / registered PDD, the approved baseline and monitoring methodology applied by the project is ACM0001 version 18. The GHG emission reduction of the project is calculated as follows:</p> $ER_y = BE_y - PE_y$ <p>Where:</p> <p>ER_y = Emissions reduction in year y (tCO₂e/y)</p> <p>BE_y = Baseline emissions in year y (tCO₂e/y)</p> <p>PE_y = Project emissions in year y (tCO₂e/y)</p> <p>The equation used to determine the baseline emission stated in the monitoring report is consistent with the approved revised PDD where:</p> $BE_y = BE_{CH_4,y} + BE_{EC,y} + BE_{HG,y} + BE_{NG,y}$ <p>Where:</p> <p>BE_y = Baseline emission in year y (tCO₂e/yr)</p> <p>$BE_{CH_4,y}$ = Baseline emission of methane from the SWDS in year y (tCO₂e/yr)</p> <p>$BE_{EC,y}$ = Baseline emissions associated with electricity generation in year y (tCO₂e/yr)</p> <p>$BE_{HG,y}$ = Baseline emissions associated with heat generation in year y (tCO₂e/yr)</p> <p>$BE_{NG,y}$ = Baseline emissions associated with natural gas use in year y (tCO₂e/yr)</p> <p>The project activity has no heat generation and no natural gas used, therefore, the 2 baselines are:</p> <p>Baseline emissions of methane from SWDS is calculated using the below equation.</p> $BE_{CH_4,y} = (1 - OX_{top_layer}) \times (F_{CH_4,PJ,y} - F_{CH_4,BL,y}) \times GWP_{CH_4}$ <p>Therefore, $BE_{CH_4,y} = 316,460 \text{ tCO}_2\text{e}$</p> <p>$V_{CH_4,flare}$ is the quantity of LFG being combusted in the flare system add the amount of methane being flare according to the flaring efficiency. In order to determine the amount of methane flared, the LFG flared is multiply with the methane density and concentration. The methane concentration and density is continuously monitor by the minute in accordance to the project emissions from flaring version 02.0.0.</p> <p>The PP applies the default value for flaring efficiency. The data were crosscheck to confirm the default values applied are correct.</p> <p>The methane GWP applied in this monitoring period is 25 in accordance to decision 4/CMP7 and § 66 of EB69.</p> <p>$V_{CH_4,Engine}$ is the quantity of LFG combusted in the gas engines. In order to determine the amount of methane combusted, the LFG combusted is multiply with the methane density and concentration. The methane concentration and density is continuously monitored by the minute in accordance to the project emissions from flaring version 02.0.0.</p> <p>There is no methane destruction requirements according to host country regulation, therefore, zero</p> <p>There is no thermal energy generated, therefore, zero</p> <p>Baseline emissions associated with electricity generation is represented with below equation:</p> $BE_{EC,y} = \sum kEC_{BL,k,y} \times EF_{EL,k,y} \times (1 + TD_{L,k,y})$
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	<p>Therefore, $BE_{EC,y} = 28,255 \text{ tCO}_2\text{e}$</p> <p>The baseline emission reduction for exporting the generated electricity to the grid is calculated using the monitored data of $EG_{PJ,y}$ multiply with the grid emission factor $EF_{EL,k,y}$ and average transmission loss $TDL_{k,y}$.</p> <p>The grid emission factor applied is an ex-ante value $0.7146 \text{ tCO}_2/\text{MWh}$, which was available during the project renewal of CP registration.</p> <p>The average transmission is an ex-ante value of 7.39% from 28/08/2016 to 31/12/2016 and 7.74% from 01/01/2017 onwards according to the approved revised PDD.</p> <p>From the above baseline emissions equation,</p> $BE_y = BE_{CH_4,y} + BE_{EC,y} + BE_{HG,y} + BE_{NG,y}$ $= 316,460 + 28,255 + 0 + 0$ $= 344,715 \text{ tCO}_2\text{e (after round down to integral)}$ <p>During the verification, the calculation of baseline GHG emissions have been check. In detail the following has been verified:</p> <ul style="list-style-type: none"> • <i>Transparency:</i> It has been checked whether the calculation of baseline emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae. • <i>Parameter consistency:</i> It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet. • <i>Correctness:</i> It has been checked whether the applied formulae and methods for calculating baseline emissions are in accordance with the monitoring plan and the approved methodology. • <i>Completeness:</i> It has been checked whether all calculations are complete and without omissions. <p>The verification team had reviewed the calculations presented and deemed correct.</p>						
Findings	<table border="1"> <tr> <td data-bbox="448 1126 528 1487"><input type="checkbox"/></td><td data-bbox="528 1126 1473 1487"> <p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p> </td></tr> <tr> <td data-bbox="448 1487 528 1559"><input checked="" type="checkbox"/></td><td data-bbox="528 1487 1473 1559">The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.</td></tr> <tr> <td data-bbox="448 1559 528 1637"><input checked="" type="checkbox"/></td><td data-bbox="528 1559 1473 1637"> <p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CAR E.8-3, CAR E.8-4</p> </td></tr> </table>	<input type="checkbox"/>	<p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>	<input checked="" type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.	<input checked="" type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CAR E.8-3, CAR E.8-4</p>
<input type="checkbox"/>	<p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>						
<input checked="" type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.						
<input checked="" type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>CAR E.8-3, CAR E.8-4</p>						
Conclusion	<table border="1"> <tr> <td data-bbox="448 1637 528 1709"><input type="checkbox"/></td><td data-bbox="528 1637 1473 1709">No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.</td></tr> <tr> <td data-bbox="448 1709 528 1809"><input checked="" type="checkbox"/></td><td data-bbox="528 1709 1473 1809">The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.</td></tr> </table> <p>The calculations of baseline GHG emissions have been carried out in accordance with the equations and methods described in the approved revised monitoring plan and applied methodology.</p> <p>Any assumptions used in emission or removal calculations have been justified. Appropriate emission factor and other reference values have been correctly applied.</p> <p>Where corrections were required a revised ER calculation was prepared by the PPs and presented to the verification team. All raised issues were addressed</p>	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.		
<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.						
<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.						

	appropriately so that it can be confirmed that the baseline emissions calculation is overall correct.
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E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	<p>During the verification, the calculation of project GHG emissions has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> • Transparency: It has been checked whether the calculation of project emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae. • Parameter consistency: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet. • Correctness: It has been checked whether the applied formulae and methods for calculating project emissions are in accordance with the monitoring plan and the approved methodology. • Completeness: It has been checked whether all calculations are complete and without omissions. <p>The project emissions are from the consumption of grid electricity and incomplete flaring process, and from fossil fuel use.</p> <p>Electricity meter EL6 records the grid electricity consumed by flare 1 & 2 systems, gas engines 1, 2, 3 & 4 auxiliaries, GSS1, GSS2 and GSSF1. The consumption is manually recorded daily and aggregated weekly.</p> <p>Meter EL1 is no longer in use and acts as a standby meter.</p> <p>The usage of diesel by the standby genset is mainly for monthly test runs.</p> <p>The verification team had checked the records during the on-site visit and confirmed the records are correct.</p> <p>The data applied in the ER spreadsheet were cross-checked and verified with the daily records.</p> <p>The project emission is calculated with the below formula: $PE_y = PE_{EC,y} + PE_{FC,j,y}$ (Revised equation 22 of ACM0001)</p> <p>Where:</p> <p>$PE_{EC,y}$: Project emissions from consumption of electricity by project activity during the year</p> <p>$PE_{FC,j,y}$: Project emissions from usage fossil fuel by the standby genset during the year.</p> <p>Therefore, $PE_y = 2,271 + 17$</p> <p>The project emissions for this period is 2,288 tCO₂e</p> <p>The verification team had reviewed the calculations presented are considered correct.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /ER1/ • /ER8/ • /O1/
Findings	<div style="display: flex; align-items: center;"> <input data-bbox="475 1937 507 1971" type="checkbox"/> <div style="margin-left: 10px;"> <p>The calculation of the project emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of project GHG emissions or actual net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been</p> </div> </div>

		correctly applied. No errors, miscalculations, omissions, misstatements or incomplete information have been identified.
	<input checked="" type="checkbox"/>	The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CAR E.8-3, CAR E.8-4
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		The calculation of project GHG emissions is consider correct after corrections made. The calculations of project GHG emissions have been carried out in accordance with to the equation and methods described in the registered PDD and applied methodology

E.8.3. Calculation of leakage GHG emissions

Means of verification		<p>During the verification it has been checked whether leakage emissions have to be considered and in cases where leakage emissions have to be calculated, the respective calculation of leakage GHG emissions has been checked.</p> <p>According to the approved revised PDD, there is no GHG emission caused by leakage emission of the proposed project activity.</p> <p>Therefore, leakage is considered to be zero ($LE_y = 0$)</p> <p>During the verification it has been checked whether leakage emissions have to be considered and, in cases where leakage emissions have to be calculated, the respective calculation of leakage GHG emissions has been checked. In such cases the same verification principles have been considered as for the baseline and project emissions calculation. Please refer to E.8.1 and E.8.2.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /PDD1/ • /ER1/ • /ACM1/
Findings	<input checked="" type="checkbox"/>	No leakage emissions were to be considered ($LE = 0$).
	<input type="checkbox"/>	<p>The calculation of the leakage emissions was found to be fully compliant with the above stated principles (see 8.1 and 8.2).</p> <p>The calculations of leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in leakage emissions calculations have been justified. Where applicable, appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information have been identified.</p>
	<input type="checkbox"/>	The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.

	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		No leakage has to be considered according to the registered PDD since the technology used in this project is neither transferred to nor transferred from another activity.

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

Means of verification	<p>The verification team has checked if the MR includes a summary table of the emission reductions calculation specifying separately</p> <ul style="list-style-type: none"> - Total baseline emissions, - Total project emissions, - Total leakage, - Total emission reductions. <p>Section E.4 of MR demonstrate the summary of GHG emission reductions for the monitoring period and calculated according to the applied methodology ACM0001 version 18.0 as follows:</p> $\begin{aligned} \text{ER} &= \text{BE}_y - \text{PE}_y \\ &= 344,715 - 2,288 \\ &= \mathbf{342,427 \text{ tCO}_2\text{e}} \end{aligned}$ <p>To be conservative, the total baseline emissions for biogas extracted are rounded down as integer. Project emissions are rounded-up to the next integer.</p>	
Findings	<input checked="" type="checkbox"/>	Section E.4 of the MR includes in a summary table of the emission reductions calculation.
	<input checked="" type="checkbox"/>	The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.
	<input type="checkbox"/>	The values as specified in the ER summary table are correct; no issues have been identified during the verification which requires changes in the ER calculation.
	<input checked="" type="checkbox"/>	During the verification, issues with impact on the ER calculation have been identified.
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CAR E.8-4
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		<p>It can be concluded that the summary table in the MR has been filled correctly and the values are in line with the related emissions reduction spreadsheet</p> <p>The summary table in the MR has been filled correctly and the values are in line with the related emissions reduction spreadsheet after correction.</p>

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

Means of verification	<p>The verification team has checked if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.</p> <p>Section E.5 of the MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the approved revised PDD.</p> <p>For this monitoring period from 28/08/2016 to 31/12/2017 (both days included) the project achieved 342,427 tCO₂e of GHG emission reductions.</p> <p>The estimated ex-ante GHG emission reductions in the approved revised / registered PDD for this monitoring period are 364,568 tCO₂e.</p> <p>Therefore, the actual emission reduction was 6.1% lower than the estimated ex-</p>	
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	ante emission reductions. The following sources of information have been used in this context: <ul style="list-style-type: none"> • /MR/ • /PDD1/ • /ER/ 	
Findings	<input checked="" type="checkbox"/>	Case 1: The ex-ante estimated value was found to be proportionally higher than the ex-post determined value. No further action is deemed required.
	<input type="checkbox"/>	Case 2: The ex-ante estimated value fits very good to the actually monitored value. No further justification is deemed required.
	<input type="checkbox"/>	Case 3: The ex-ante estimated value was found to be proportionally lower than the ex-post determined value.
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	The ex-ante estimated value was found to be proportionally higher than the ex-post determined value. No further action is deemed required.	

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

Means of verification	Section E.5 of the MR includes a comparison of the actual emissions reduction with the ex-ante calculated values in the approved revised PDD as below. Ex-ante ERs: 364,568 tCO ₂ e for 491 days (237,207 tCO ₂ e/a) Ex-post ERs: 342,427 tCO ₂ e for 491 days Difference: 22,141 tCO ₂ e The comparison is based on 491 days of the monitoring period. Section E.6 of the MR includes the justification for the ex-post ERs are lower than the ex-ante ERs by 6.07%.	
Findings	<input checked="" type="checkbox"/>	No further justification or explanation is deemed required as actual emissions of this MP do not exceed significantly the ex-ante calculated emission reductions (applicable for case 1 and 2).
	<input type="checkbox"/>	For case 3: The PP has provided a related justification in the MR. The reasons for the increase are as follows:
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	The PP has demonstrated the reasons for lower CERs in section E.6 of MR. It could be confirmed the justification for the lower CERs is comprehensible.	

E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	The verification team has checked chapter E.4 of the MR and the emission reduction calculation sheet. ^{/ER1/}	
Findings	<input checked="" type="checkbox"/>	The MR in section E.4 includes a summary table of the ER breakdown <ul style="list-style-type: none"> a) ER before 01/01/2013 and b) ER from 01/01/2013 onwards

	<input checked="" type="checkbox"/>	The breakdown of the ERs before 01/01/2013 (during the first commitment period) and from 01/01/2013 onwards is as follows:								
	<input type="checkbox"/>	The ER have completely been generated before 01/01/2013 (during the first commitment period)								
	<input checked="" type="checkbox"/>	The ERs have completely been generated from 01/01/2013 onwards,								
	<input type="checkbox"/>	The ERs have partly been generated before 01/01/2013 (during the first commitment period) and partly from 01/01/2013 onwards.								
	<input checked="" type="checkbox"/>	The breakdown of the ERs is correct, considering the applicable guidance.								
		<table border="1"> <thead> <tr> <th></th> <th>before 01/01/2013</th> <th>from 01/01/2013</th> <th>Sum</th> </tr> </thead> <tbody> <tr> <td>Emission reductions [tCO_{2e}]</td> <td>0</td> <td>342,427</td> <td>342, 427</td> </tr> </tbody> </table>		before 01/01/2013	from 01/01/2013	Sum	Emission reductions [tCO_{2e}]	0	342,427	342, 427
	before 01/01/2013	from 01/01/2013	Sum							
Emission reductions [tCO_{2e}]	0	342,427	342, 427							
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:								
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.								
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.								
	Thus, the emission reductions generated for this monitoring period are from the 2 nd commitment period from 01/01/2013 onwards. The breakdown of the emission reductions is correct, considering the applicable guidance.									

E.9. Assessment of reported sustainable development co-benefits

Means of verification	<input checked="" type="checkbox"/>	N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.
	<input type="checkbox"/>	<p>The project participants have monitored the sustainable development co-benefits of the registered CDM project activity, and requested the DOE to verify them.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /PDD/ • /DSD/ • /unfccc/
Findings	<input checked="" type="checkbox"/>	N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.
	<input type="checkbox"/>	<p>Therefore, the DOE has assessed and confirms that:</p> <p>(a) The monitoring has been carried out in accordance with the document for monitoring sustainable development co-benefits, if such document was developed and published on the UNFCCC CDM website in accordance with the “CDM project standard for project activities”;</p> <p>(b) The reported monitoring results correspond to the sustainable development co-benefits of the project activity as observed by the DOE.</p>
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:
Conclusion	<input type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	<input checked="" type="checkbox"/>	N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.

E.10. Global stakeholder consultation

Means of verification	<p>In accordance with the PCP the DOE has submitted the initial version of the monitoring report provided by the PP for this monitoring period to be published on the UNFCCC webpage.</p> <p>The monitoring report has been published for the period 04/07/2018 to 20/09/2018 (Date of onsite)</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /unfccc/ 														
Findings	<input checked="" type="checkbox"/>	No comments have been received on the published monitoring report for this monitoring period.													
	<input type="checkbox"/>	Comments have been received and the DOE has concluded that comments are related to issues outside the CDM rules and requirements. Please refer to the list provided under Conclusion of this Section below for related information.													
	<input type="checkbox"/>	<p>Comments have been received.</p> <p>The DOE has</p> <ul style="list-style-type: none"> - requested further information from the submitters of the comments - informed the project participants of the comments received, and requested their feedback within a specified timeframe, - considered the input received and has assessed whether such comments are relevant to the CDM project activity, - acknowledged receipt of all submitted comments on the MR of the proposed CDM project activity, - assessed whether the comments are related to the CDM rules and requirements (if so related findings have been raised as per below), - used all possible means to determine the authenticity of the name and contact details of the individual or organization on whose behalf the comments have been submitted, - contacted the secretariat to make them publicly available (if only addressed to the DOE), - determined whether authentic and relevant comments in the global stakeholder consultation were taken into due account in the PDD of the proposed CDM project activity. 													
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised, i.e. as the DOE concludes that the comments are related to the CDM rules and requirements:													
Conclusion	<input checked="" type="checkbox"/>	No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.													
	<input type="checkbox"/>	The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.													
	As the DOE has concluded that comments are related to issues outside the CDM rules and requirements the comments and information gathered are listed as follows:														
	<table border="1"> <thead> <tr> <th data-bbox="448 1727 544 1787">Nbr.</th><th data-bbox="549 1727 890 1787">Original comment received</th><th data-bbox="890 1727 1193 1787">Feedback by the PP</th><th data-bbox="1193 1727 1437 1787">Statement by DOE</th></tr> </thead> <tbody> <tr> <td data-bbox="448 1787 544 1816">1</td><td data-bbox="549 1787 890 1816"></td><td data-bbox="890 1787 1193 1816"></td><td data-bbox="1193 1787 1437 1816"></td></tr> <tr> <td data-bbox="448 1816 544 1845">2</td><td data-bbox="549 1816 890 1845"></td><td data-bbox="890 1816 1193 1845"></td><td data-bbox="1193 1816 1437 1845"></td></tr> </tbody> </table>	Nbr.	Original comment received	Feedback by the PP	Statement by DOE	1				2					
Nbr.	Original comment received	Feedback by the PP	Statement by DOE												
1															
2															

SECTION F. Internal quality control

Before the submission of the final verification report a technical review of the whole verification procedure was carried out. The technical reviewers are competent GHG auditors being appointed for the scope this project falls under. The technical reviewers are not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may have been confirmed or revised. Furthermore, reporting improvements might have been achieved.

After the successful technical review, an overall (esp. procedural) assessment of the complete verification has been carried out by a senior assessor located in the accredited premises of TÜV NORD CERT GmbH.

After this step the submission for requesting for issuance is conducted.

SECTION G. Verification opinion

KUB-Berjaya Enviro Sdn. Bhd. (KBE) has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st (CPII) periodic verification of the project: **“Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia”**, with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to using landfill gas to generate renewable energy. This verification covers the period from 28/08/2016 to 31/12/2017 (including both days).

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., ACM0001 ver. 18.0.
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 1st (CPII) periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **342,427 tCO₂e**

SECTION H. Certification statement

As a duly accredited DOE, TÜV NORD CERT confirms that the project

“Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia”

registered under

UNFCCC-No.: 2467

has achieved emission reductions in accordance with all applicable requirements for registered CDM project activities during the current monitoring period

MP-No.: 1

from: 28/08/2016

to: 31/12/2017

(including both days) as follows:

Emission reductions: **342,427 tCO₂e**

Essen,

Winter, Rainer
TÜV NORD JI/CDM CP
Verification Team Leader
10/04/2019

Appendix 1. Abbreviations

Abbreviations	Full texts
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CO ₂	Carbon dioxide
CO _{2eq}	Carbon dioxide equivalent
CL	Clarification Request
CPII	Crediting Period II
DOE	Designated Operating Entity
DVerR	Draft Verification Report
ER	Emission Reduction
EVN	Electricity Vietnam
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IM	Interview Memo
IPCC	Intergovernmental Panel on Climate Change
MOIT	Ministry of Industry and Trade
MONRE	Ministry of Natural Resources and Environment
MOSTE	Ministry of Scientific, Technology and Environment of Viet Nam
MP	Monitoring Plan
MR	Monitoring Report
PA	Project Activity
PDD	Project Design Document
PP	Project Participant
PRC	Post Registration Changes
QA/QC	Quality Assurance / Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JVCDM Certification Program

Mr. David Lubanga


SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification)	2018-10-29
VCS / ISO 14064-2	Lead Assessor	2018-10-29

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand

251 - Rev. 4, Date: 2015-10-21

251_VA060-F20_2015-10-21_rev4.doc 251-VA060-F20 rev4 / 2015-10-21



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JVCDM Certification Program

Mr. Robert Cheong

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2021-04-01
VCS	Senior Assessor	2021-04-01

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand
13.1	Solid waste and wastewater
13.2	Manure

128 - Rev. 9, Date: 2018-03-19

128_251-VA060-F20_2018-03-19_rev9.doc 251-VA060-F20 rev9 / 2018-03-19

Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JVCDM Certification Program

Mr. Kunal Rami

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2020-03-26
VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2020-03-26

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
2.1	Energy distribution
3.1	Energy demand
6.1	Construction
7.1	Transport
13.1	Solid waste and wastewater

224 - Rev. 8, Date: 2018-08-31

224_251-VA060-F20_2018-08-31_rev8.doc

501-VA060-F20 rev8 / 2018-10-25

Appendix 3. Documents reviewed or referenced

No.	Author	Reference	Title	References to the document	Provider
1	UNFCCC	/ACM1/	ACM0001: "Flaring or use of landfill gas" version 18.0	http://cdm.unfccc.int/methodologies/index.html	Other
2	DOE	/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)		Other
3	UNFCCC	/EB69/	EB 69 Meeting Report §66	http://cdm.unfccc.int/EB/index.html	Other
4	UNFCCC	/GT/	Glossary "CDM terms" (version 09.1)	https://cdm.unfccc.int/filestorage/e/x/t/extfile-20150226124447549-glos_CDM.pdf/glos_CDM.pdf?t=UmZ8bnFjODI3fDCW9A3vJwR03kQh4sbLiYu	Other
5	IPCC	/IPCC/	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book	www.ipcc-nggip.iges.or.jp	Other
6	UNFCCC	/KPI/	Kyoto Protocol (1997)	http://unfccc.int/kyoto_protocol/items/2830.php	Other
7	UNFCCC	/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)	http://cdm.unfccc.int/Reference/CO2PMOP/index.html	Other
8	UNFCCC	/MRT/	Monitoring Report Form (CDM-MR-FORM), Version 6.0	https://cdm.unfccc.int/Reference/PDs_Forms/index.html	Other
9	UNFCCC	/PDD1/	Project Design Document for CDM project: "Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia" version 20.5 dated 26/03/2018	http://cdm.unfccc.int/Projects/DB/DNV-CUK1238680609.1/view	Other
10	UNFCCC	/PS/	CDM Project Standard (Version 02.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
11	UNFCCC	/ESW/	Emissions from solid waste disposal sites" Version 07.0	http://cdm.unfccc.int/DNA/Reference/tools/index.html	Other
12	UNFCCC	/PEF/	Project emissions from flaring version 02.0.0	http://cdm.unfccc.int/DNA/Reference/tools/index.html	Other
13	UNFCCC	/TPL/	Tool to calculate project or leakage CO2 emissions from fossil fuel	http://cdm.unfccc.int/DNA/Reference	Other

No.	Author	Reference	Title	References to the document	Provider
			combustion" Version 02.0	e/tools/index.html	
14	UNFCCC	/PLEC/	Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 02.0	http://cdm.unfccc.int/DNA/Reference/tools/index.html	Other
15	UNFCCC	/TMF/	Tool to determine the mass flow of a greenhouse gas in a gaseous stream Version 3.0	http://cdm.unfccc.int/DNA/Reference/tools/index.html	Other
16	DOE	/VAL/	Validation Report for CDM project "Landfill Gas Recovery and Utilization at Bukit Tagar Sanitary Landfill, Hulu Selangor in Malaysia" revision 02.2, dated 26/03/2018	http://cdm.unfccc.int/Projects/DB/DNV-CUK1238680609.1/view	Other
17	UNFCCC	/VVS/	CDM Validation and Verification Standard (Version 02.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
18	UNFCCC	/GOT/	Glossary "CDM terms" (version 09.1)	https://cdm.unfccc.int/filestorage/e/x/t/extfile-20150226124447549-glos_CDM.pdf/glos_CDM.pdf?t=UmZ8bnFjODI3fDCW9A3vJwR03kQqH4sbLiYu	Other
19	PP	/MR/	Monitoring Report version 1.0 dated 22/06/2018 Monitoring Report version 1.1 dated 24/02/2019 Monitoring Report version 1.2 dated 02/04/2019		PP
20	PP	/ER1/	ER spreadsheet version 1.0 dated 18/06/2018 ER spreadsheet version 1.1 dated 07/02/2019 ER spreadsheet version 1.2 dated 03/04/2019		PP
21	PP	/ER2/	Flare No.2 Excel Sheet for calculating the effect of the overdue calibration of TT3 to the raw data usage for the affected period		PP
22	PP	/ER3/	F1TT1 – Flare No.1 Excel Sheet for calculating the new FT2 value for LFG temperature (TT1) more than 60°C for monitoring period from 28/08/2016 to 03/01/2017		PP
23	PP	/ER4/	FTT – Flare No.2 Excel Sheet for calculating the new FT2 and FT3 values for FT Proportion for FT2 and FT3 for monitoring period from 28/08/2016 to 31/12/2017		PP
24	PP	/ER5/	F2TT1 – Flare No.2 Excel Sheet for		PP

No.	Author	Reference	Title	References to the document	Provider
			calculating the new FT2 and FT3 values for FT Proportion for FT2 and FT3 for monitoring period		
25	PP	/ER6/	<ul style="list-style-type: none"> GSS 1 Excel Sheet for calculating the effect of the overdue calibration of TT1 to the normalised flow for the affected period GSS 1 Excel Sheet for calculating the effect of the overdue calibration of PT2 to the normalised flow for the affected period GSS 2 Excel Sheet for calculating the effect of the overdue calibration of TT1 to the normalised flow for the affected period GSS 2 Excel Sheet for calculating the effect of the overdue calibration of PT2 to the normalised flow for the affected period 		PP
26	PP	/ER7/	Total Running Time of Flare No.1 and No.2		PP
27	PP /TNB	/ER8/	Electricity Joint Meter Readings from 28/08/2016 to 31/12/2017		PP / Other
28	TNB	/ER9/	Average Operating Time of Gas Engine No.1, No.2, No.3 and No.4		Other
29	PP	/ER10/	GSSTT1 – GSS 1 Excel Sheet for calculating the new FT3 value for LFG temperature (TT) more than 60°C for monitoring period from 28/08/2016 to 31/12/2017		PP
30	PP	/ER11/	GSSTT1 – GSS 2 Excel Sheet for calculating the new FT3 value for LFG temperature (TT) more than 60°C for monitoring period from 28/08/2016 to 31/12/2017		PP
31	PP	/ER12/	GSSTT1 – GSS F1 Excel Sheet for calculating the new FT3 value for LFG temperature (TT) more than 60°C for monitoring period from 28/08/2016 to 31/12/2017		PP
Calibration Certificates for Flare No.1					
32	CT Services	/CF11/	Tt - T _{TT1,F2F1} (Flare 1) Temperature Transmitter PR Electronics S/N: 100944768 calibration by CT Services. Calibration details refer to Appendix 6		Other
33	CT Services	/CF12/	TEG _m : Flare 1 Temperature Transmitter PR Electronics S/N: 110910943 calibration by CT Services. Calibration details refer to		Other

No.	Author	Reference	Title	References to the document	Provider
			Appendix 6		
34	CT Services	/CF13/	Pt - P _{PT2, F1} (Flare 1) Pressure Transmitter Rosemount S/N: 02492864, calibration by CT Services. Calibration details refer to Appendix 6		Other
35	CT Services	/CF14/	V _{t,wb} – FT1 - FT119 (Flare 1) LFG Flow Transmitter FT1 Rosemount S/N: 4972946, calibration by CT Services. Calibration details refer to Appendix 6		Other
36	CT Services	/CF15/	V _{t,wb} – FT2 - FT120 (Flare 1) LFG Flare Flow Transmitter Rosemount S/N: 02768008, calibration by CT Services. Calibration details refer to Appendix 6		Other
37	CT Services	/CF16/	V _{CH4,m,db} – Flare 1 CH ₄ Gas Detector Guardian S/N: 33436 calibration by CT Services, Calibration details refer to Appendix 6		Other
38	Air Products	/CF17/	Span Gas (Nitrogen and Methane) dated: 01/08/2011 valid until 01/08/2021 Span Gas (Oxygen and Nitrogen) dated: 19/01/2012 valid until 19/01/2022		Other
Calibration Certificates for Flare No.2					
39	CT Services	/CF21/	Tt - T _{TT1,F2} , (Flare 2) Temperature Transmitter Honeywell S/N: B839917437 calibration by CT Services. Calibration details refer to Appendix 6		Other
40	CT Services	/CF22/	TEG _m – Flare 2 Temperature Transmitter Honeywell S/N: B838901937 calibration by CT Services. Calibration details refer to Appendix 6		Other
41	CT Services	/CF23/	Pt - P _{PT2,F2} (Flare 2) Pressure Transmitter Rosemount S/N: 5584784 calibration by CT Services. Calibration details refer to Appendix 6		Other
42	CT Services	/CF24/	V _{t,wb} FT1 Flare No.2 (FT141) Total Flow Transmitter Rosemount S/N: 5476626 calibration by CT Services. Calibration details refer to Appendix 6		Other
43	CT Services	/CF25/	V _{t,wb} – FT2 – FT140 (Flare 2) Flow Transmitter Rosemount S/N: 5476627 calibration by CT Services Calibration details refer to Appendix 6		Other
44	CT Services	/CF26/	V _{t,wb} – FT3, Flare 2 Flow Transmitter Kingways Control S/N: 02768007 calibration by CT Services. Calibration details refer to Appendix 6		Other
45	CT Services	/CF27/	V _{CH4,m,db} – Flare 2 CH ₄ Gas Analyser		Other

No.	Author	Reference	Title	References to the document	Provider
			(Guardian) S/N: 31453, calibration by CT Services. Calibration details refer to Appendix 6		
46	RA Power	/CF29/	EG _{PJ,y} : EL4 (Flare 2 generation) Power Meter (EDMI Limited) total electricity generated by gas engine no. 1 S/N: 210225256, calibration by RA Power System Protection. Calibration details refer to Appendix 6		Other
47	TNB	/CF210/	EG _{PJ,y} : EL5 (Flare 2 to Grid) 1. Power Meter (Itron) TNB Export meter S/N: 53099690 calibration by Tenaga Nasional Berhad (TNB) dated: 11/04/2011 2. Power Meter Check Meter (Itron) TNB Export meter S/N: 53099691 calibration by Tenaga Nasional Berhad (TNB) dated: 11/04/2011 Calibration details refer to Appendix 6		Other
48	Air Products	/CF211/	Span Gas (Nitrogen and Methane) dated: 04/10/2010 valid until 10/04/2020 Span Gas (Nitrogen and Carbon Dioxide) dated: 04/10/2010 valid until 10/04/2020 Span Gas (Nitrogen and Oxygen) dated: 04/10/2010 valid until 10/04/2020		Other
Calibration Certificates for Gas Engines No.2 and No.3					
49	CT Services	/CF31/	Tt - T _{TT1,GSS1} (GE2 & 3) Temperature Transmitter Honeywell S/N: b527143837 calibration by CT Services. Calibration details refer to Appendix 6		Other
50	CT Services	/CF32/	Pt - P _{PT2,GSS1} (GE 2 & 3) Pressure Transmitter Rosemount S/N: 5916057 calibration by CT Services. Calibration details refer to Appendix 6		Other
51	CT Services	/CF33/	V _{t,wb} – FT3 (GSS1 – GE2 & 3) Flow Transmitter KVS S/N: 5988022, calibration by CT Services. Calibration details refer to Appendix 6		Other
52	CT Services	/CF34/	V _{CH4,m,db} – GSS1 CH ₄ Gas Analyser (Guardian Plus) S/N: 34140 calibration by CT Services. Calibration details refer to Appendix 6		Other
53	IME	/CF35/	EG _{EC,y} : EL6 Import Power Meter (IME) S/N: 2661930098 calibration by IME. Calibration details refer to Appendix 6		Other
54	Mirastech & RA System	/CF36/	EG _{PJ,y} : EL9 – GSS1 GE2 generation Power Meter (EDMI Limited) S/N: 211516862 calibration by Mirastech on 08/04/2013 and by RA Power		Other

No.	Author	Reference	Title	References to the document	Provider
			System on 13/05/2015		
55	Mirastech & RA System	/CF37/	EG _{PJ,y} : EL10 – GSS1 generation GE2 Power Meter (EDMI Limited) S/N: 211516863 calibration by Mirastech and by RA Power System. Calibration details refer to Appendix 6		Other
56	TNB	/CF38/	EG _{PJ,y} : EL11 – GSS1 Main Meter to grid (EDMI Limited) S/N: 908705152 calibration by TNB dated 06/12/2009 valid for 5 years Power Meter – EL11 check meter (EDMI Limited) S/N: 908705154 calibration by TNB dated 06/12/2009 valid for 5 years Calibration details refer to Appendix 6		Other
Calibration Certificates for Gas Engine No. 4					
57	Duon System CT Services	/CF41/	Tt - T _{TT1,GSS2} (GE4) Temperature Transmitter Autrol S/N: ATT21004151000 calibration by Duon System and CT Services. Calibration details refer to Appendix 6		Other
58	Duon System CT Services	/CF42/	Pt - P _{PT2,GSS2} (GE4) Pressure Transmitter Autrol S/N: APT3200-4150998 calibration by Duon System and CT services. Calibration details refer to Appendix 6		Other
59	Binder	/CF43/	V _{t,wb} – FT3 (GSS2 – GE4) Flow Transmitter Combimass S/N: C150327 calibration by Binder. Calibration details refer to Appendix 6		Other
60	One Gasmaster CT Services	/CF44/	V _{CH4,m,db} – GSS2 CH ₄ Gas Analyser (Guardian NG) S/N: 8154 and 33542 calibration by One Gasmaster and CT Services. Calibration details refer to Appendix 6		Other
61	RA System	/CF45/	EG _{PJ,y} : EL12 – GSS2 Generation Power Meter (EDMI Limited) S/N: 213545834 calibration by RA Power System. Calibration details refer to Appendix 6		Other
62	TNB	/CF46/	EG _{PJ,y} : EL13 – GSS2 Main Meter to grid Power Meter (Itron) S/N: 81480576 calibration by TNB dated 14/06/2016 valid for 5 years Power Meter EL13 GSS 2 check meter to grid (Itron) S/N: 81480578 calibration by TNB dated 14/06/2016 valid for 5 years Calibration details refer to Appendix 6		Other
Calibration Certificates for GSSF1					
63	CT Services	/CF51/	V _{t,wb} – FT3 GSSF1 Flow Transmitter Rosemount S/N: 02768007,		Others

No.	Author	Reference	Title	References to the document	Provider
			calibration by CT Services. Calibration details refer to Appendix 6		
64	CT Services	/CF52/	V _{CH4,m,db} – GSSF1 CH ₄ Gas Analyser (Guardian Plus) S/N: 33436 calibration by CT Services. Calibration details refer to Appendix 6		Others
65	CT Services	/CF53/	T _t - T _{TT1GSSF1} (GE1) Temperature Transmitter PR Electronics S/N: 100944768 calibration by CT Services. Calibration details refer to Appendix 6		Others
66	CT Services	/CF54/	P _t - P _{PT2, GSSF1} (GE1) Pressure Transmitter Rosemount S/N: 02492864, calibration by CT Services. Calibration details refer to Appendix 6		Others
Daily Manual Log Sheet					
67	PP	/DML1/	Daily Monitoring Log Sheet for Flare No. 1 from 28/08/2016 to 31/12/2017		PP
68	PP	/DML2/	Daily Monitoring Log Sheet for Flare No. 2 from 28/08/2016 to 31/12/2017		PP
69	PP	/DML3/	Daily Monitoring Log Sheet for Gas Engines No. 1, No. 2 and No. 3 (power meter readings) from 28/08/2016 to 31/12/2017		PP
70	PP	/DML4/	Daily Monitoring Log Sheet for Gas Engines No. 2 and No. 3 (flow meter readings) from 28/08/2016 to 31/12/2017		PP
71	PP	/DML5/	Daily Monitoring Log Sheet for Gas Engine No. 4 (flow meter readings) from 28/08/2016 to 31/12/2017		PP
72	PP	/DML6/	Daily Monitoring Log Sheet for GSSF1 (flow meter readings) from 01/06/2017 to 31/12/2017		
Internal Audit					
73	PP	/IAR1/	<ul style="list-style-type: none"> CDM Audit No.14 Report for monitoring period from 26/08/2016 to 31/12/2017 conducted on 12/10/2017 CDM Audit No. 14 Attendance List dated 		PP
Maintenance & Service Programme & Records					
74	PP	/MS1/	Yearly Maintenance and Operation Record for Flare No. 1 & Flare 2 for monitoring period from 28/08/2016 to 31/12/2017		PP
75	PP	/MS2/	Yearly Maintenance and Operation Record for Gas Engine 1 for monitoring period from 28/08/2016 to 31/12/2017		PP
76	PP	/MS3/	Yearly Maintenance and Operation Record for Gas Engine No.2 for monitoring period from 28/08/2016 to		PP

No.	Author	Reference	Title	References to the document	Provider
			31/12/2017		
77	PP	/MS4/	Service and Maintenance Record for monitoring period for gas engine no. 3 from 28/08/2016 to 31/12/2017		PP
78	PP	/MS5/	Service and Maintenance Record for monitoring period for gas engine no. 4 from 28/08/2016 to 31/12/2017		PP
79	PP	/MS6/	Service and Maintenance Record for monitoring period for GSSF1 from 01/06/2017 to 31/12/2017		PP
Management Meeting Records					
80	PP	/MMR1/	CDM Management Meeting No.16 Minutes of Meeting dated 12/08/2017		PP
	QA/QC Manual				
81	PP	/MM1/	Monitoring Manual version 6.0 dated 17/08/2017		PP
Shutdown and Downtime Records					
82	PP	/SDR1/	Flare 1 system from 28/08/2016 to 03/01/2017		PP
83	PP	/SDR2/	Flare 2 system from 28/08/2016 to 31/12/2017		PP
84	PP	/SDR3/	Gas Engine No. 1 from 28/08/2016 to 31/12/2017		PP
85	PP	/SDR4/	Gas Engine No. 2 from 28/08/2016 to 31/12/2017		PP
86	PP	/SDR5/	Gas Engine No.3 from 28/08/2016 to 31/12/2017		PP
87	PP	/SDR6/	Gas Engine No. 4 from 28/08/2016 to 31/12/2017		PP
88	PP	/SDR7/	GSSF – GE1 from 01/06/2017 to 31/12/2017		PP
Training Records					
89	PP	/T1/	Training Record Attendance for year 2016		PP
Raw Data					
90	PP	/FRD1/	Flare No.1 LFG raw data for monitoring period from 26/08/2016 to 31/12/2017, inclusive of PLC data.		PP
91	PP	/FRD2/	Flare No.2 LFG raw data for monitoring period from 26/08/2016 to 31/12/2017 inclusive of PLC data. <ul style="list-style-type: none"> November – December 2016 May to September 2017 		PP
92	PP	/GSS1RD/	Gas Engines No.2 and No.3 raw data for monitoring period from 28/08/2016 to 31/12/2017 inclusive of PLC data. <ul style="list-style-type: none"> October to December 2016 January 2017, March 2017, July – September 2017 		PP

No.	Author	Reference	Title	References to the document	Provider
93	PP	/GSS2RD/	Gas Engine No.4 LFG raw data for monitoring period from 28/08/2016 to 31/12/2017		PP
94	PP	GSSF1RD	GSSF! raw data for monitoring period from 01/06/2017 to 31/12/2017		PP
Others					
95	PP	/O1/	Monthly Tests and fuel records Diesel Consumption for Standby Genset Diesel Delivery Order		PP
96	PP	/O2	Environmental Monitoring Report (June – Aug 18)		PP
97	PP	/O3/	CO ₂ Manual Recording Average CO ₂ and CI 95% calculation		PP
98	PP	/O4/	Average O ₂ for Flare 1 and Flare 2 95% CI for O ₂		PP
99	PP	/O5/	95% CI for GSS2 CH ₄ (June – Aug 2017)		PP
100	TNB	/O6/	Malaysian Grid Code (pg 419) dated 02/08/2010		PP
Equipment & Instruments					
101	PP	/E1/	Biogas Genset Technical Data from MWM undated Biogas Genset Technical Data for MTU undated		PP
102	PP	/E2/	Enclosed Biogas Flaring System Technical Specifications by Beijing Fairyland Environmental Technology Co. Ltd.		PP
103	PP	/E3/	Flare 1 instruments specifications dated 28/10/2009		PP
104	PP	/E4/	Flare 2 instruments specifications dated 30/10/2010		PP
105	PP	/E5/	Flow Meter V-Cone specifications undated (FT1, FT2 and FT3) COMBIMASS Binder Flowmeter Transmitter for GSS2 FT3		PP
106	PP	/E6/	Guardian Plus Gas Analyser Specification undated Guardian NG Gas Analyser Specification undated		PP
107	PP	/E7/	PR Electronics Specifications for TT1 & TT3 Honeywell Temperature Transmitter Specifications issue 8 – 9/07 for TT3 Autrol Temperature Transmitter - ATT2100 for TT1		PP

No.	Author	Reference	Title	References to the document	Provider
108	PP	/E8/	Autrol Pressure Transmitter - APT3200		PP
109	PP	/E9/	EL1 meters information		PP
110	PP	/E10/	EL4 meter information		PP
111	PP	/E11/	Total Engine Management System		PP
112	TNB	/E12/	TNB Meters (EL5) Details and Calibration Labels		PP
113	PP	/E13/	General Certificate (accuracy documentation) for flow meter FT1 (Rosemount), pressure meter PT2 (Rosemount), temperature transmitter TT1 (Honeywell) and methane analyser CH4 (Guardian Plus) GSS		PP
114	PP	/E14/	Technical specifications for power meters EL6 (IME) Calibration frequency documentation for power meters EL6 (IME)		PP
115	PP	/E15/	Technical specifications for power meters EL9 – EL12 (EDMI Limited) Calibration frequency documentation for power meters EL9 – EL12 (EDMI Limited)		PP
116	PP	/E16/	References of equipment power for engine 2 & 3, 4, GSS1 and GSS2 for electricity consumption		PP
117	PP	/E17/	Diesel Gen-set Specification		PP
118	PP	/E18/	Diesel Fuel Gauge		PP
119		/dnaMY/	http://www.nre.gov.my/English/Profile/DivisionInformation/Pages/Environmental%20Management%20and%20Climate%20Change.aspx	DNA Malaysia	
120		/unfccc/	http://cdm.unfccc.int	UNFCCC	
121		/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications	

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

Table 3. Remaining FAR from validation and/or previous verifications

FAR ID	xx	Section no.	E.2	Date: DD/MM/YYYY
Description of FAR				
NA				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				
				Date: DD/MM/YYYY

Table 4. CL from this verification

CL ID	E.8-1	Section no.	D.2	Date:	21/09/2018
Description of CL					
MR version 1.0 Section D.2 Parameter f_y : Clarification requested on how the monitored value is determined.					
Project participant response (1st round)					Date: 10/02/2019
MR version 1.1 Section D.2 Parameter f_y : The value is monitored once for the crediting period, the parameter f_y is referring to $V_{CH4,m,db}$.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in MR		Section(s): D.2		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 11/02/2019
MR version 1.1 Section D.2 Parameter f_y : The monitored value is derived from parameter $V_{CH4,m,db}$ which is appropriate.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CL ID	E.8-2	Section no.	D.2	Date:	21/09/2018
Description of CL					
MR version 1.0 Section D.2, Parameter $V_{CH4,m,db}$: The PP is requested to clarify for the constant CH ₄ data for GSS2 during the period June to August 2017.					
Project participant response (1st round)					Date: 10/02/2019
MR version 1.0 Section D.2, Parameter $V_{CH4,m,db}$: There was an error reading / constant data for CH ₄ GSS2 from June – Aug 2017 due to the erroneous of data capturing for gas analyser, according to PDD, page 83, 95% CI was applied, a total of 10 readings before and after the constant period is used to calculate the lower bound of 95% confidence interval. The lower bound of the interval boundaries calculated is applied to the period for the constant data as a conservative approach. The 95% CI analysis is submitted to verifier (OTH 03).					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input type="checkbox"/> Changes in MR		Section(s):		New version No.:	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input checked="" type="checkbox"/> Other: OTH 03 – 95% CI for CH ₄					
DOE assessment (1st round)					Date: 11/02/2019
MR version 1.1 Section D.2, Parameter $V_{CH4,m,db}$: As explained by PP from above, there was erroneous data captured by the gas analyser during the period June to August 2017 for GSS2, the 95% CI is applied to calculate the data by applied the approved method according to the page 83 of PDD version 20.5.					
The CI calculation has been reviewed for conservativeness, the calculated lower bound data is applied in the ER. Therefore, it is appropriate.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

Table 5. CAR from this verification

CAR ID	E.3-1	Section no.	Cover page and Others	Date:	21/09/2018
Description of CAR					
MR version 1.0: The referred PDD version throughout the MR is inconsistent with the approved version.					
Project participant response (1st round)					Date: 10/20/2019
The referred PDD version throughout the MR is amended from version 20.3 to version 20.5 in revised MR.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in MR		Section(s): Page 1, Section C and E.2, footnote page 77		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 11/02/2019

MR version 1.1: The referred PDD version is corrected throughout the MR and consistent with the approved version.

Conclusion

Tick the appropriate checkbox

- ☐ Additional action should be taken (finding remains open)
☒ The finding is closed

CAR ID	E.4-1	Section no.	B.1	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section B.1:					
<ol style="list-style-type: none"> 1. The information for Phases 2 and 3 are to be corrected. 2. The information for Flare 1 which was stopped and converted to GSS F1 is confusing. 3. Flare 2 supply of gas should include phase 2. 4. Naming of Phase 2 shall be consistent. 					
Project participant response (1st round)					Date:
					10/02/2019
<ol style="list-style-type: none"> 1. The duration of filling and amount of waste disposed (t) for Phase 2 and 3 is updated in revised MR version 1.1 (Page 5). 2. The description for Flare 1 which was stopped and converted to GSSF1 is restructured in revised MR version 1.1 (Page 6). 3. Description for Flare 2 on the supply of gas is amended to include phase 2 in revised MR version 1.1 (Page 10). 4. The naming of phase 2 is amended in revised MR version 1.1 (Page 8 & 9). 					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in MR		Section(s): B.1		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date:
					11/02/2019
MR version 1.1 Section B.1:					
<ol style="list-style-type: none"> 1. The information for Phases 2 and 3 are corrected to reflect the actual site situation. 2. The information for Flare 1 which was stopped and converted to GSS F1 is updated to reflect the actual site situation. 3. Flare 2 supply of gas is updated to include phase 2. 4. Naming of Phase 2 is corrected for consistency. 					
Conclusion					
<i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.4-2	Section no.	B.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section B.2:					
<ol style="list-style-type: none"> 1. Section B.2.1: The temporary deviation in CPI shall be deleted to avoid confusion 2. Section B.2.5: The permanent changes to MP during CPI shall be deleted to avoid confusion. The referred PRC number is inconsistent with project website. 3. Section B.2.6: The post changes for the change of Flare 1 to GSSF1 is not reported. The PRC during CPI shall be deleted to avoid confusion. 					
Project participant response (1st round)					Date:
					10/02/2019
<ol style="list-style-type: none"> 1. Section B.2.1: The temporary deviation in CPI is deleted in revised MR version 1.1 (Page 11). 2. Section B.2.5: The permanent changes to MP during CPI is deleted, the referred PRC number is revised from PRC-2467-004 to PRC-2467-005 (Page 12). 3. Section B.2.6: There is no change to project design of registered project activity during this monitoring period, the changes for the change of Flare 1 to GSSF1 is consider revision of MP, as a result, the changes is described under section B.2.5. The PRC during CPI is deleted in revised MR version 1.1 (Page 12). 					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	

<input checked="" type="checkbox"/> Changes in MR	Section(s): B.2	New version No.: 1.1
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input type="checkbox"/> Other:		
DOE assessment (1st round)		Date: 11/02/2019
MR version 1.1 Section B.2:		
<ol style="list-style-type: none"> 1. Section B.2.1: The temporary deviation in CPI is deleted to avoid confusion. 2. Section B.2.5: The permanent changes to MP during CPI is deleted to avoid confusion. The referred PRC number is corrected and consistent with project website. 3. Section B.2.6: The post changes for the change of Flare 1 to GSSF1 is updated. The PRC during CPI is deleted to avoid confusion. 		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.5-1	Section no.	C	Date:	21/09/2018
Description of CAR					
MR version 1.0, Monitoring Methodology:					
<ol style="list-style-type: none"> 1. Table 3: With the converting of Flare 1 to GSSF1, the measuring instruments for flare 1 shall not be reported. 2. The VVS and PS reference to be update to the most recent version for CDM projects. 3. The applied Tool to determine project emissions from flaring gases containing methane is no longer valid. 4. Figure 10 should reflect the 2 different setup for the monitoring period. 5. Figure 12 is inconsistent with the current implementation. 					
Project participant response (1st round)					Date: 10/02/2019
<ol style="list-style-type: none"> 1. Table 3: With the converting of Flare 1 to GSSF1, the measuring instruments duration for Flare 1 is updated from 28/08/2016 – 03/01/2017 in revised MR (Page 20). 2. The VVS and PS reference is updated to the most recent version for CDM projects in revised MR (Page 25, and 26). 3. The 3 conditionals applied for Tool to determine project emissions from flaring gases containing methane is no longer valid. As a result, the paragraph is deleted in revised MR (Page 31). 4. Figure 10 is updated to reflect the 2 different setup (before and after conversion) for the monitoring period in revised MR (Page 16 & 18). 5. Figure 12 is updated with the current implementation in revised MR (Page 33). 					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): C		New version No.: 1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 11/02/2019
MR version 1.1, Monitoring Methodology:					
<ol style="list-style-type: none"> 1. Table 3: With the converting of Flare 1 to GSSF1, the measuring instruments duration for Flare 1 is updated accordingly for the measured period. 2. The VVS and PS reference is updated to the most recent version for CDM projects. 3. The applied Tool to determine project emissions from flaring gases containing methane is deleted since it is no longer valid. 4. Figure 10 is updated to reflect the 2 different setup for the monitoring period. 5. Figure 12 is corrected and consistent with the current implementation. 					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CAR ID	E-6-1	Section no.	D.1	Date:	21/09/2018
Description of CAR					

MR version 1.0, section D.1 Parameter DOC _j : The waste type is inconsistent with the approved PDD version 20.5		
Project participant response (1st round)	Date	10/02/2019
MR version 1.1, section D.1 Parameter DOC _j : The waste type is revised to delete nappies to be consistent with approved PDD version 20.5 in revised MR (Page 37).		
Documentation provided by project participant (1st round)		
<input type="checkbox"/> Changes in the PDD	Section(s):	New version No.:
<input checked="" type="checkbox"/> Changes in MR	Section(s): D	New version No.: 1.1
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input type="checkbox"/> Other:		
DOE assessment (1st round)	Date:	11/02/2019
MR version 1.1, section D.1 Parameter DOC _j : The waste type is corrected and consistent with the approved PDD version 20.5		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.6-2	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2: The start date for August 2016 shall be reported for clarity.					
Project participant response (1st round)				Date	10/02/2019
MR version 1.1 Section D.2: The start date for August 2016 is revised to start from 28 August 2016 in revised MR.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2		New version No.: 1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Section D.2: The start date for all parameters is revised to 28/06/2018 that reflects the start date of MP.					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.6-3	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2 Parameter Management of SWDS: The reporting should be based on the environmental monitoring report submitted to Department of Environmental.					
Project participant response (1st round)				Date:	10/02/2019
MR version 1.1 Section D.2 Parameter Management of SWDS: The reporting is based on the environmental monitoring report submitted to Department of Environment. The latest environmental monitoring report (April – June 2018) was submitted to verifier during the site visit (OTH 01).					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2		New version No.: 1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input checked="" type="checkbox"/> Other: OTH 01 – EMR (April – June 2018)					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Section D.2 Parameter Management of SWDS: The reporting is revise and according to the environmental monitoring report submitted to Department of Environmental for period April to June 2018.					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.6-4	Section no.	D.2 & ER spreadsheet	Date:	21/09/2018
Description of CAR					

MR version 1.0 Section D.2 Parameter EG _{p,j,y} : The August 2016 electricity exported to the grid measured by the TNB meters should be proportionate according to the start date of the MP.		
Project participant response (1st round)	Date:	10/02/2019
MR version 1.1 Section D.2 Parameter EG _{p,j,y} : The August 2016 electricity exported to the grid measured by the TNB meters is revised to be proportionate according to the start date of the MP which is from 28-31/08/16 in revised MR. The changes are in CER sheet ELPJ Tab with no changes in MR because the proportion reading from TNB is higher than the reading taken from BTSL meter		
Documentation provided by project participant (1st round)		
<input type="checkbox"/> Changes in the PDD	Section(s):	New version No.:
<input type="checkbox"/> Changes in MR	Section(s):	New version No.:
<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): EL PJ Tab	New version No.: 1.1
<input type="checkbox"/> Other:		
DOE assessment (1st round)	Date:	11/02/2019
MR version 1.1 Section D.2 Parameter EG _{p,j,y} : The electricity export in August 2016 is revised to be proportionate according to the start date of the MP which is from 28/08/2016 to 31/08/2016. In the ER spreadsheet CER sheet ELPJ Tab demonstrate the revised amount from the internal meter is proportion lower than reading from TNB meter. With a lower amount applied it is consider conservative thus lower the ERs for power generated.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.6-5	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2 Parameter EG _{EC,y} : The 10% addition for distribution losses should make reference to the PRC and not the PS.					
Project participant response (1st round)				Date:	10/02/2019
MR version 1.1 Section D.2 Parameter EG _{EC,y} : The 10% addition for distribution losses is refer to the PRC (PRC-2467-002) in revised MR.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2		New version No.:1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Section D.2 Parameter EG _{EC,y} : The reference for the 10% addition transmission loss is corrected to PRC-2467-002.					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.6-6	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2 Parameter Flame _m : The PP is requested to demonstrate the flame of the flare when it was on or off operation.					
Project participant response (1st round)				Date:	10/02/2019
MR version 1.1 Section D.2 Parameter Flame _m : The flame detection will be monitored using the fixed ultra-violet detector. The flame detection will be cross checked with the amount of gas sent to flare (FT2) and gas engine (FT3). If there is data for FT2 and FT3, means the flame is on. The reference is made in value(s) of monitored parameter.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2		New version No.: 1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019

MR version 1.1 Section D.2 Parameter Flame_m: The monitoring of the flame whether is in on or off operation mode using the ultra-violet detector and crosscheck with the amount of gas sent to flare (FT2) and gas engine (FT3).

The ER spreadsheet is crosscheck for the flame operation.

Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open)
	<input checked="" type="checkbox"/> The finding is closed

CAR ID	E.6-7	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Parameter V _{t,wb} : The comparison between F1 and F2&F3 is not applicable for the time after June 2017.					
Project participant response (1st round)					Date: 10/02/2019
MR version 1.1 Parameter V _{t,wb} : The comparison between F1 and F2&F3 is not applicable for the time after June 2017 due to the conversion of Gas Engine No.1 to GSS F1 which starts to operate on 01/06/2017. The description is amended and updated in revised MR.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in MR		Section(s): D.2		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input type="checkbox"/> Other:					
DOE assessment (1st round)					Date: 11/02/2019
MR version 1.1 Parameter V _{t,wb} : The description for comparison between F1 and F2&F3 as of 01/06/2017 is revised as there will be no comparison since Gas Engine No.1 is converted to GSS F1					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open)				
	<input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.6-8	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2, Parameters V _{CO2,t,db} and V _{O2,t,db} : The PP is requested to demonstrate how the data is determined.					
Project participant response (1st round)					Date: 10/02/2019
MR version 1.1 Section D.2, Parameters V _{CO2,t,db} and V _{O2,t,db} : The data for V _{CO2,t,db} is compiled from manual recording at site, the record was calculated as monthly average value, apply 95% CI, lower value is inserted in revised MR (Page 70) (OTH 02). The data for V _{O2,t,db} is continuous recorded using meter, the record was calculated as daily average value and inserted in revised MR (Page 70) (OTH 03).					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in MR		Section(s): D.2		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
Other: <input checked="" type="checkbox"/> OTH 02 – Average value for CO2 <input checked="" type="checkbox"/> OTH 03 – Average Value for O2					
DOE assessment (1st round)					Date: 11/02/2019
MR version 1.1 Section D.2, Parameters V _{CO2,t,db} and V _{O2,t,db} : The data for V _{CO2,t,db} is based on manual data from the portable gas analyser, recalculated as monthly average value and apply the 95% CI lower value. The calculation was crosscheck for correctness. The data for V _{O2,t,db} is derived from continuous measured data and calculated to daily average value and apply the 95%Ci lower value.					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open)				
	<input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.6-9	Section no.	D.2	Date:	21/09/2018
Description of CAR					

MR version 1.0 Parameter Status of biogas destruction device: The PP is request to demonstrate the status of the monitored value.		
Project participant response (1st round)	Date:	10/02/2019
MR version 1.1 Parameter Status of biogas destruction device: The operational status will be monitored and cross checked with the amount of gas sent to flare (FT2), and also the operating hour for Gas Engines. The reference is made in value(s) of monitored parameter (Op _{j,h}).		
Documentation provided by project participant (1st round)		
<input type="checkbox"/> Changes in the PDD	Section(s):	New version No.:
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2	New version No.: 1.1
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input type="checkbox"/> Other:		
DOE assessment (1st round)	Date:	11/02/2019
MR version 1.1 Parameter Status of biogas destruction device: The PP has updated the MR on the monitoring of the operation status that will be cross-checked with the amount of gas sent to flare FT2 and operating hours of the gas engines. Thus, the monitoring is appropriate.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

CAR ID	E.6-10	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2, Parameter FC _{i,j,y} : The quantity of fossil fuel used for test run of the standby genset shall be reported and calculated as project emissions.					
Project participant response (1st round)				Date:	10/02/2019
MR version 1.1 Section D.2, Parameter FC _{i,j,y} : The quantity of fossil fuel used for test run of the standby genset is reported and calculated as project emissions in both revised MR and ER. The amount of diesel utilized is submitted to verifier (OTH)					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2		New version No.: 1.1		
<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): PEFC tab		New version No.: 1.1		
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Section D.2, Parameter FC _{i,j,y} : The quantity of fossil fuel used for test run of the standby genset is included and project emissions is included in the ER spreadsheet version 1.1					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.7-1	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section D.2: Several of the parameters calibration dates before the start of the monitoring period shall be stated.					
Project participant response (1st round)				Date:	10/02/2019
MR version 1.1 Section D.2: EL6 calibration date before the start of the monitoring period is stated in revised MR.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD	Section(s):		New version No.:		
<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2		New version No.:1.1		
<input type="checkbox"/> Changes in XLS	Worksheet(s):		New version No.:		
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Section D.2: The calibration date for several parameters are updated in revised MR.					
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed				

CAR ID	E.7-2	Section no.	D.2	Date:	21/09/2018
Description of CAR					
MR version 1.0 Parameter $V_{t,wb}$: The calibration for GSS2 FT3 is not available. In accordance with the CDM VVS 02.0 §368, the PP is requested to conduct calibration of the flow meter prior to applying the MPE of the instrument error or the error from the calibration results to the data of the delayed period.					
Project participant response (1st round)				Date:	10/02/2019
The calibration for GSS2 FT3 was conducted on 10/12/2018 (CF43b_BTSL_FT3_101218). The error from the calibration results is less than the instrument error, as a result, the maximum permissible error of $\pm 2.7\%$ which is the instrument error was applied to FT3 from 23/06/2017 - 31/12/2017 as a conservative approach.					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input type="checkbox"/> Changes in MR		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in XLS		Worksheet(s): June17_Main to Dec17_Main		New version No.: 1.1	
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Parameter $V_{t,wb}$: The calibration for GSS2 FT3 is conducted on 10/12/2018. The results of the calibration is review and found the error during calibration is less than the instrument accuracy error. Therefore, MPE applied to the measured data is the instrument error of 2.7% to the delay period is consider appropriate and conservative. The ER spreadsheet is crosscheck for correctness.					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.8-3	Section no.	E	Date:	21/09/2018
Description of CAR					
MR version 1.0 Section E:					
<ol style="list-style-type: none"> 1. The BE in Section E.1, PE in section E.2, ERs in sections E.4 and E.5 and remarks in Section E.6 shall be updated with the corrections of the relevant findings as above 2. The referred period for the applied grid emission factor shall be corrected 3. The referred VVS and PDD versions shall be corrected 					
Project participant response (1st round)				Date:	10/02/2019
MR version 1.1 Section E:					
<ol style="list-style-type: none"> 1. The BE in Section E.1, PE in section E.2, ERs in sections E.4 and E.5 and remarks in Section E.6 is updated with the corrections of the relevant findings as above in revised MR. 2. The referred period for the applied grid emission factor is corrected in revised MR 3. The referred VVS and PDD version is corrected in revised MR. 					
Documentation provided by project participant (1st round)					
<input type="checkbox"/> Changes in the PDD		Section(s):		New version No.:	
<input checked="" type="checkbox"/> Changes in MR		Section(s): E		New version No.: 1.1	
<input type="checkbox"/> Changes in XLS		Worksheet(s):		New version No.:	
<input type="checkbox"/> Other:					
DOE assessment (1st round)				Date:	11/02/2019
MR version 1.1 Section E:					
<ol style="list-style-type: none"> 1. The BE in Section E.1, PE in section E.2, ERs in sections E.4 and E.5 and remarks in Section E.6 is updated according to the corrections of the above relevant findings 2. The referred period for the applied grid emission factor is corrected accordingly. 3. The referred VVS and PDD versions are corrected accordingly. 					
Conclusion <i>Tick the appropriate checkbox</i>		<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed			

CAR ID	E.8-4	Section no.	ER spreadsheet	Date:	21/09/2018
Description of CAR					

ER spreadsheet version 1.0: The respective tabs shall be updated with the corrections of the above relevant findings.		
Project participant response (1st round)		Date: 10/02/2019
ER spreadsheet version 1.1: The respective tabs are updated with the corrections of the above relevant findings in revised ER.		
Documentation provided by project participant (1st round)		
<input type="checkbox"/> Changes in the PDD	Section(s):	New version No.:
<input type="checkbox"/> Changes in MR	Section(s):	New version No.:
<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): All	New version No.: 1.1
<input type="checkbox"/> Other:		
DOE assessment (1st round)		Date: 11/02/2019
ER spreadsheet version 1.1: The respective tabs have been updated with the corrections of the above relevant findings.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

Table 6. FAR from this verification

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

Appendix 5. Monitored Parameters

Table A-5: Periodic Verification Checklist – Monitored Parameters

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
1. Management of SWDS		Description: Management of the SWDS		
a) Measurement / Determination method (VVS, §§ 363-367) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/MR/ /PDD1/ /O2/	Description: The parameter monitors the management of the SWDS During this monitoring period, there is no change to the original design of the landfill of any change to the technical specification and regulation announced by the host country to regulate LFG projects	CAR E.6-3	OK
		Verifier's action: The verification team has visited the landfill site and there is no change to the design or technical specifications of the landfill sites Based on interviews conducted onsite and a web search the verification team can confirm that there is no regulation announced by the host country government for methane capturing in LFG projects		
		Conclusion: It is concluded the parameter is monitored in accordance with the approved revised PDD		
		<input checked="" type="checkbox"/> In this context the following findings have been raised: <div> <input checked="" type="checkbox"/> CAR E.6-3 <input type="checkbox"/> </div>		
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)	/MR/	<input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the	CAR E.6-3	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.		
<p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/PDD1/ /MM1/ /IM01/	<div></div> monitoring plan				
		<input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6				
		<input type="checkbox"/> No delayed calibration has occurred				
		<input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.				
		<input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.				
		<input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY				
		<input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <div> <input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration <input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument <input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument <input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals <input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of </div>				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
			calibration and the actual date of calibration.		
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	E.6-3		
		<input type="checkbox"/>			
2. Op_{j,h}		Description: Operation of the equipment that consumes the LFG			
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/MR/ /ACM1/ /PDD1/ /ER7/ /ER9/ /E11/ /DML1- DML6/ /SDR1- SDR7/	Description: The parameter monitor the operation of the gas engines and flares are measure continuously by the run-hour meter for the gas engine, UV flame detector for the flare with thermocouples to measure the operating temperature. All monitored data are capture in the SCADA system. The data is recorded on hourly, aggregated monthly and yearly. Verifier's action: During the onsite assessment, the run-hour meters installed at each engine were inspected. The operational log records for the flare operational hours and flame detector are review. There are no exchange of gas engines or flare during this monitoring period. The monitoring of the engines and flares operating hours has no impact and will not affect the emission reduction calculations. Therefore, the verification team consider the measurement is insignificant. Conclusion: The parameter is monitored in accordance with the approved PDD and applied methodology <input checked="" type="checkbox"/> In this context the following findings have been raised:		CAR E.6-2	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div>such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals</div> <div><input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</div> <div><input type="checkbox"/> In this context the following findings have been raised:</div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div>		
3. EG_{PJ,y} (EL_{LFG,GE No.1,y}, EL_{LFG,GE No.2,y}, EL_{LFG,GE No.3,y}, EL_{LFG,GE No.4,y},		Description: Amount of electricity generated using LFG by the project activity in year y		
<p>a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p>	/ MR / / PDD1 / / ACM1 / / E10 / / E12 / / E14 / / E15 / / CF29 / / CF210 / / CF35- CF38 / / CF45- CF46 / / ER1 /	<p><i>Description:</i> This parameter monitored the net amount of electricity generated using landfill gas.</p> <p>Flare 2 (Gas Engine 1): The amount of electricity generated by the gas engine no. 1 is measured by meter EL4.</p> <p>The amount of electricity generated by gas engine 1 for export to the grid is measured by meter EL5 which belongs to the grid operator, Tenaga Nasional Berhad (TNB).</p> <p>The net amount of electricity exported to the grid from gas engine 1 is compared between the amount generated measured by meter EL4 and the read measured value from the grid meter EL5 and the lower value will be applied as the quantity of electricity generated by gas engine 1 for the baseline emissions.</p> <p>EL4: A delay in calibration conducted on 03/10/2016, calibration error of 1.14% found. The MPE of 1.14% is applied to the data for period 03/10/2016 to 05/01/2017</p> <p>EL5 is owned by TNB and calibration is not conducted since the due date.</p>	CAR E.6-2 CAR E.6-4	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>In accordance to VVS, version 02.0, para. 368, "If the results of the delayed calibration are not available, or the calibration has not been conducted at the time of the verification, the DOE, prior to finalizing the verification, shall request the project participants to conduct the required calibration and shall determine whether the project participants have calculated GHG emission reductions or net anthropogenic GHG removals conservatively using the approach mentioned in paragraph 358 above.</p> <p>Para 368: If, during the verification of a certain monitoring period, the DOE identifies that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), referring to the illustrative examples in the appendix below, the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of GHG emission reductions or net anthropogenic GHG removals;</p> <p>a) Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error</p> <p>Therefore, for conservativeness, the PP has apply the meter accuracy of 0.2% as MPE to the measured date for period 28/08/2017 to 31/12/2017.</p> <p>GSS1 (Gas Engine 2 & 3):</p> <p>The amount of electricity generated by the gas engines 2 & 3 is measured by meters EL9 & EL10.</p> <p>The amount of electricity generated by gas engines 2 & 3 for export to the grid is measured by meter EL11 which belongs to the grid operator, Tenaga Nasional Berhad (TNB).</p> <p>The calculated sum value of meters EL9 + EL10 is compared with the read value from EL11 and the lower value will be taken as the quantity of electricity generated by gas engines 2 & 3 for the</p>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>baseline emissions.</p> <p>EL9: A delay in calibration conducted on 28/01/2018, calibration error of 2.08% found. The MPE of 2.08% is applied to the data for period 13/05/2017 to 31/12/2017.</p> <p>EL10: A delay in calibration conducted on 28/01/2018, calibration error of 1.14% found. The MPE of 1.14% is applied to the data for period 13/05/2017 to 31/12/2017</p> <p>EL11 is owned by TNB and calibration has not been conducted since due date.</p> <p>In accordance to VVS, version 02.0, para. 368, "If the results of the delayed calibration are not available, or the calibration has not been conducted at the time of the verification, the DOE, prior to finalizing the verification, shall request the project participants to conduct the required calibration and shall determine whether the project participants have calculated GHG emission reductions or net anthropogenic GHG removals conservatively using the approach mentioned in paragraph 366 above.</p> <p>Para 366: If, during the verification of a certain monitoring period, the DOE identifies that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), referring to the illustrative examples in the appendix below, the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of GHG emission reductions or net anthropogenic GHG removals;</p> <p>a) Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error</p> <p>Therefore, for conservativeness, the PP has apply the meter accuracy of 0.5% as MPE to the measured date for period 28/08/2016 to 31/12/2017.</p>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>Therefore, for conservativeness, meter accuracy of 0.5% is applied to the data for period 28/08/2016 to 31/12/2017 in accordance to VVS, version 02, , §367 (a), "In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals</p> <p>GSS2 (Gas Engine 4):</p> <p>The amount of electricity generated by the gas engine 4 is measured by meter EL12.</p> <p>The amount of electricity generated by gas engine 4 for export to the grid is measured by meter EL13 that belongs to the grid operator, Tenaga Nasional Berhad (TNB).</p> <p>The amount recorded by meter EL12 is compared with the read value from meter EL13 and the lower value will be taken as the quantity of electricity generated by gas engine 4 for the baseline emissions.</p> <p>Meter EL13 is owned by TNB and calibration was conducted 14/06/2016 and remains valid for this monitoring period.</p> <p>Meter EL12 calibration is conducted on 04/02/2016 and remains valid for this monitoring period.</p> <p>For meters details please refer to the parameter table in section D.2 and section C of the MR and Appendix 6 of this report.</p> <p><i>Verifier's action:</i></p> <p>During the onsite visit the following were checked and obtained.</p> <ul style="list-style-type: none"> • All meters specifications stated in parameter table in MR are correct and in operating condition. • Verified recorded data • Verified data applied for baseline emissions is the lower value of the compared data in the ER spreadsheet. • MPE applied are in accordance to meter accuracy or 		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		calibration error found during calibration.		
		<p><i>Conclusion:</i></p> <p>The parameter is monitor in accordance to the approved revised PDD and applied methodology.</p>		
		<input checked="" type="checkbox"/> In this context the following findings have been raised:		
		<input checked="" type="checkbox"/> CAR E.6-2		
		<input checked="" type="checkbox"/> CAR E.6-4		
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/MR/ /E10/ /E12/ /E14/ /E15/ /CF29/ /CF210/ /CF35- CF38/ /CF45- CF46/ /ER1/ /MM1/	<input checked="" type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan <input checked="" type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6 <input type="checkbox"/> No delayed calibration has occurred <input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct. <input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period. <input checked="" type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer Appendix 6 for details End date of delay: Refer Appendix 6 for details <input checked="" type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <input checked="" type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of	CAR E.6-4	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.	
				calibration		
			<input type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
			<input checked="" type="checkbox"/>	The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
			<input checked="" type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
			<input checked="" type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:			
		<input checked="" type="checkbox"/>	CAR E.6-4			
		<input checked="" type="checkbox"/>				
4. EG _{EC,y} (EL _{PJ,y})		Description: Amount of electricity consumed by the project activity in year y				
<p>a) Measurement / Determination method (VVS, §§ 363-367)</p> <p><i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	<p>/MR/ /PDD1/ /ACM1/ /ER1/ /CF29/ /CF210/ /CF36/ /CF37/ /CF38/</p>	<p><i>Description:</i></p> <p>This parameter monitors the quantity of electricity consumed by the project activity Flare 1 (28/08/2016 to 03/01/2017), Flare 2 systems, gas engines auxiliaries for GE1, 2 & 3, 4, GSS1, GSS2 and GSSF1 (01/06/2017 to 31/12/2017) from the grid and measured by meter EL6 owned by the project owner.</p> <p>EL6. A delay in calibration conducted on 28/01/2018, no calibration error found. The MPE of 1% which is the meter accuracy error is applied to the data for period 23/07/2017 to 31/12/2017</p> <p>The data is read daily, recorded and aggregated monthly.</p> <p>For meters details please refer to the parameter table in section D.2 and section C of the MR and Appendix 6 of this report</p>		<p>CAR E.6-2 CAR E.7-4</p>	<p>OK</p>	

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
	/CF45/ /CF46/ /DML1- DML6/	Verifier’s action: The grid electricity consumed by project activity were verified and the data applied in ER spreadsheet were crosschecked with the daily records. The MPE applied to the data for the delay in calibration period is cross-checked in ER spreadsheet for correctness. A daily manual reading and recorded.			
		Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology			
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	CAR E.6-2		
		<input checked="" type="checkbox"/>	CAR E.7-1		
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i>	/MR/ /ER1/ /MM1/ /IM01/	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	CAR E.7-1	OK
		<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
		<input type="checkbox"/>	No delayed calibration has occurred		
		<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
		<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input checked="" type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: 23/07/2017		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div>End date of delay: 31/12/2017</div> <div> <input checked="" type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <div> <div> <input checked="" type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration </div> <div> <input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument </div> <div> <input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument </div> <div> <input checked="" type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals </div> <div> <input checked="" type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration. </div> </div> </div> <div> <input checked="" type="checkbox"/> In this context the following findings have been raised: <div> <div> <input checked="" type="checkbox"/> CAR E.7-1 </div> <div> <input type="checkbox"/> </div> </div> </div>		
5. f_y		Description: Fraction of methane captured at the SWDS and flared, combusted or used in another manner that prevents the emissions of methane to the atmosphere in year y		
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).	/MR/ /PDD1/ /ACM1/ /ER1/	Description: The parameter measured the methane % by an online gas analyser for Flare1 (from 28/08/2016 to 03/01/2017), Flare 2, GSS1, GSS2 and GSSF1 (from 01/06/2017 to 31/12/2017). The data is for reporting purposes, not applied in ER calculations	CAR E.6-2 CLE.8-4	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>		and once for the crediting period.		
		<p><i>Verifier's action:</i></p> <p>During the onsite assessment, the data in the MR is crosscheck with the ER spreadsheet for correctness</p>		
		<p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p>		
		<input checked="" type="checkbox"/> In this context the following findings have been raised:		
		<input checked="" type="checkbox"/> CAR E.6-2 <input checked="" type="checkbox"/> CL E.8-1		
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/MR/ /ER1/ /MM1/ /IM01/	<input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	CL E.8-4	OK
		<input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6		
		<input type="checkbox"/> No delayed calibration has occurred		
		<input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.		
		<input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY		
		<input type="checkbox"/> A delay in calibration has been identified, the PP applied		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div>related actions and therefore the DOE can confirm that the:</div> <div> <input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration </div> <div> <input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument </div> <div> <input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument </div> <div> <input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals </div> <div> <input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration. </div> <div> <input checked="" type="checkbox"/> In this context the following findings have been raised: <div> <input checked="" type="checkbox"/> CL E.8-1 </div> <div> <input type="checkbox"/> </div> </div>		
6. $TEG_{,m}(T_{Flare,F1}, T_{Flare,F2})$		Description: Temperature in the exhaust gas of the enclosed flare in minute m that prevents the emissions of methane to the atmosphere in year y		
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment	/MR/ /PDD1/ /ACM1/ /ER1/ /CF12/	Description: This parameter monitors the temperature of the exhaust gas of the enclosed flare 1 and flare 2. A temperature sensor (thermocouple) is installed at the flare to capture the data. The parameter is continuously measured by the temperature sensor.	CAR E.6-2	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/CF22/ /E7/ /DML1- DML6/	Flare 1: Flare 1 operates from 28/08/2016 to 03/01/2017 and covert to GSSF1 from 01/06/2017 to 31/12/2017.		
		Flare 2: A delay in calibration conducted on 13/09/2017 and no calibration error found. Due the delay, MPE of 0.5% which is the instrument accuracy class is applied to the data for period 07/06/2017 to 12/09/2017 for conservativeness.		
		<i>Verifier's action:</i> The data is review and crosschecked with ER spreadsheet during onsite visit to confirm the MPE applied for the period of delay calibration. The transmitters specification were checked to confirm the instrument accuracy error and calibration reports for the MPE applied is correct. A daily manual reading and recorded.		
		<i>Conclusion:</i> The parameter is monitored in accordance with the approved revised PDD and applied methodology		
		<input checked="" type="checkbox"/> In this context the following findings have been raised:		
		<input checked="" type="checkbox"/> CAR E.6-2		
		<input type="checkbox"/>		
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the</i>	/MR/ /ER1/ /IM01/ /MM1/	<input checked="" type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	OK	OK
		<input checked="" type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
<p><i>monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/CF12/ /CF22/ /E3-E4/ /E7/	<input type="checkbox"/>	No delayed calibration has occurred		
		<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
		<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input checked="" type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: 07/06/2017 End date of delay: 12/09/2017		
		<input checked="" type="checkbox"/>	A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
		<input checked="" type="checkbox"/>	The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration		
		<input checked="" type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
		<input type="checkbox"/>	The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input checked="" type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input checked="" type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
<input type="checkbox"/>	In this context the following findings have been raised:				
<input type="checkbox"/>					

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		<input type="checkbox"/>			
7. Flame_m		Description: Flame detection of flare in the minute m			
<p>a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p>	/ MR / / PDD1 / / ACM1 / / FRD1 / / FRD2 /	<p><i>Description:</i> The operation of the flaring system is monitored whenever in operation by an UV flame detector continuously and data recorded in the DCS system.</p> <p><i>Verifier's action:</i> The flame detection is cross-checked with the amount of gas sent to flare 2 (FT2) and gas engine 1 (FT3). If there is data for FT2 and FT3 the flame is on.</p> <p>The operation data in crosschecked with the raw data to confirm the data is captured every minute and aggregated on a daily, monthly and yearly basis</p> <p><i>Conclusion:</i> The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <p><input checked="" type="checkbox"/> In this context the following findings have been raised:</p> <p><input checked="" type="checkbox"/> CAR E.6-6</p> <p><input type="checkbox"/></p>		CAR E.6-6	OK
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are</p>	/ MR / / QA1 / / FRD1 / / FRD2 / / IM01 /	<p><input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</p> <p><input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6</p> <p><input type="checkbox"/> No delayed calibration has occurred</p> <p><input checked="" type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.</p>		OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i>		<input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY		
		<input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
		<input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration		
		<input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
		<input type="checkbox"/> In this context the following findings have been raised:		
		<input type="checkbox"/>		
<input type="checkbox"/>				
8. $V_{t,wb}$ ($LFG_{flare,Flare}$ No.1,y, $LFG_{total,Flare}$ No.2,y, $LFG_{flare,Flare}$ No.2,y, $LFG_{electricity,Flare}$ No.2,y, $LFG_{electricity,GSS1,y}$, $LFG_{electricity,GSS2,y}$)		Description: Volumetric flow of the gaseous stream in time interval t on a wet basis		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
LFG_{electricity,GSSF1,y}				
<p>a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p>	<p>/MR/ /PDD1/ /ER1/ /ACM1/ /CF14/ /CF15/ /CF24/ /CF25/ /CF26/ /CF33/ /CF43/ /DML1- DML6/</p>	<p><i>Description:</i></p> <p>This parameter measures the amount of landfill gas combusted by the 4 gas engines and 2 flares system.</p> <p>A flow meter is installed to measure the amount of LFG combusted by each of 4 gas engines and the flares.</p> <p>Flare 1 operates from 28/08/2016 to 03/01/2017 and convert to GSSF1 that operates from 01/06/2017 to 31/12/2017.</p> <p>The data is measure continuously, captured every 1 minute and recorded in the DCS.</p> <p>Flare 1:</p> <p>FT2 - Due to delay in calibration, the maximum permissible error of $\pm 0.5\%$ which is the equipment accuracy error was applied to FT2 from 20/11/2016 – 03/01/2017 as a conservative approach.</p> <p>Gas Engine No.1 was converted to GSSF1 which started to operate on 01/06/2017, Flow meter (FT3) was converted to FT3_{GSSF1}</p> <p>Flare 2:</p> <p>FT1 - Due to delay in calibration, the maximum permissible error $\pm 0.5\%$ which is the equipment accuracy error was applied to FT1 from 12/05/2017 – 12/09/2017 as a conservative approach. The impact of applying this error to the flow normalisation is negligible</p> <p>FT2 - Due to delay in calibration. The maximum permissible error $\pm 0.5\%$ which is the equipment accuracy error was applied to FT2 from 12/05/2017 – 12/09/2017 as a conservative approach. The impact of applying this error to the flow normalisation is negligible</p> <p>FT3 – Due to delay in calibration, the maximum permissible error of $\pm 0.5\%$ which is the equipment accuracy error was applied to FT3 from 20/11/2016 – 03/01/2017 as a conservative approach.</p> <p>GSS2 Engine 2:</p>	<p>CAR E.6-2 CAR E.6-6 CAR E.7-2</p>	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.								
		<p>FT3 - Due to delay in calibration, the maximum permissible error of $\pm 2.7\%$ which is the equipment accuracy error was applied to FT3 from 23/06/2017 - 31/12/2017 as a conservative approach. The latest calibration was done on 10/12/2018, the error is less than the maximum permissible error of $\pm 2.7\%$.</p> <p><i>Verifier's action:</i></p> <p>During the onsite visit, the captured data at the DCS, raw data sheet, daily manual log sheets were reviewed and crosschecked with the data applied in the ER spreadsheet.</p> <p>The MPE applied to the data for the Flare 1, 2 and gas engine no. 2 are crosschecked with the calibration reports and ER spreadsheet.</p> <p>A daily reading is read and recorded.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-2</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-6</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.7-2</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-2	<input checked="" type="checkbox"/>	CAR E.6-6	<input checked="" type="checkbox"/>	CAR E.7-2		
<input checked="" type="checkbox"/>	In this context the following findings have been raised:											
<input checked="" type="checkbox"/>	CAR E.6-2											
<input checked="" type="checkbox"/>	CAR E.6-6											
<input checked="" type="checkbox"/>	CAR E.7-2											
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p>	<p>/MR/ /PDD1/ /ER1/ /ACM1/ /CF14/ /CF15/</p>	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> <tr> <td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr> <tr> <td><input type="checkbox"/></td><td>As per the initial assessment the monitored value is deemed</td></tr> </table>	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	<input type="checkbox"/>	No delayed calibration has occurred	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed	CAR E.7-2	OK
<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan											
<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6											
<input type="checkbox"/>	No delayed calibration has occurred											
<input type="checkbox"/>	As per the initial assessment the monitored value is deemed											

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.	
<p>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</p> <p>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</p>	/CF24/	to be correct.			
	/CF25/	<input type="checkbox"/>			Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.
	/CF26/				
	/CF33/	<input checked="" type="checkbox"/>			Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY
	/CF43/	<input checked="" type="checkbox"/>			A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:
	/MM1/	<input type="checkbox"/>			The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration
	/IM01/	<input type="checkbox"/>			The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument
		<input type="checkbox"/>			The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument
		<input type="checkbox"/>			The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals
		<input type="checkbox"/>			The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.
	<input checked="" type="checkbox"/>	In this context the following findings have been raised:			
	<input checked="" type="checkbox"/>	CAR E.7-2			
	<input type="checkbox"/>				
9. $V_{CH4,m,db}$ ($W_{CH4,Flare\ No.1,y}$, $W_{CH4,Flare\ No.2,y}$, $W_{CH4,GSS1,y}$,		Description: Volumetric fraction of greenhouse gas i in a time			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
W_{CH4,GSS2,y}, W_{CH4,GSSF1,y}		interval t on a dry basis		
<p>a) Measurement / Determination method (VVS, §§ 363-367)</p> <p><i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	<p>/MR/ /PDD1/ /ACM1/ /ER1/ /CF16/ /CF27/ /CF35/ /CF44/ /CF52/</p>	<p><i>Description:</i></p> <p>This parameter monitors the fraction of methane for Flare No. 1 (from 28/08/2016 to 03/01/2017), Flare No. 2, GSS1, GSS2 and GSSF1 (from 01/06/2017 to 31/12/2017) continuously by an on-line gas analyser.</p> <p>The fraction of methane is measured in dry basis.</p> <p>The data is recorded in the DCS every minute.</p> <p>Flare 1:</p> <p>Flare 1 operates from 28/08/2016 to 31/12/2017 and convert to GSSF1 operates from 01/06/2017 to 31/12/2017.</p> <p>GSS1:</p> <p>A delay in calibration conducted on 09/11/2017 with error found. However, the error found is 0.39%. For conservativeness, the PP has apply MPE of 2% to the data for period 07/06/2017 to 09/11/2017 which is the instrument accuracy.</p> <p>GSS2:</p> <p>A delay in calibration was conducted on 13/09/2017 with error of 0.1%. For conservativeness MPE of 2% is applied which is instrument accuracy to the data for period 08/03/2017 to 12/09/2017.</p> <p>GSSF1:</p> <p>A delay in calibration was conduct on 13/09/2017 with no error 0.1%. For conservativeness MPE of 2% is applied which is instrument accuracy to the data for period 07/06/2017 to 12/09/2017.</p> <p><i>Verifier's action:</i></p> <p>According to the approved revised PDD, the fraction is measured in wet basis.</p> <p>The ER spreadsheet is reviewed to verify the MPE applied for</p>	<p>CAR E-6-2 CL-E-8-2</p>	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
		Flare 2, GSS1, GSS2 and GSSF1 data for the affected period. The calibration reports were verified to crosscheck for any calibration errors found and MPE applied is based on the instrument accuracy.			
		Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology			
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:		
		<input checked="" type="checkbox"/>	CAR E.6-2		
		<input checked="" type="checkbox"/>	CL E.8-2		
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i>	/MR/ /PDD1/ /ACM1/ /ER1/ /CF16/ /CF27/ /CF35/ /CF44/ /CF52/ /MM1/ /IM01/	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	CL E.8-2	OK
	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6			
	<input type="checkbox"/>	No delayed calibration has occurred			
	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.			
	<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.			
	<input checked="" type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer appendix for details End date of delay: Refer appendix for details			
	<input checked="" type="checkbox"/>	A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)			Draft Concl.	Final Concl.	
			<input checked="" type="checkbox"/>	The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration			
			<input checked="" type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument			
			<input type="checkbox"/>	The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument			
			<input checked="" type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals			
			<input checked="" type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.			
		<input checked="" type="checkbox"/>	In this context the following findings have been raised:				
			<input checked="" type="checkbox"/>	CL E.8-2			
			<input type="checkbox"/>				
10. T _t (T _{TT1,F1} , T _{TT1,F2} , T _{TT1,GSS1} , T _{TT1,GSS2} , T _{TT1,GSSF1})		Description: Temperature of the gaseous stream in time interval t					
a) Measurement / Determination method (VVS, §§ 363-367) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination</i>	/MR/ /PDD1/ /ACM1/ /TMF/ /ER3/ /ER10-ER12/ /DML1-	<i>Description:</i> This parameter measures the LFG temperature for Flare 1, Flare 2, GSS1, GSS2 and GSSF1. The temperature is measured continuously measured by an integrated temperature transmitter with a sensor to capture the data. The data is continuously captured by the temperature sensor / transmitter. The measured data will be converted to normalise value that does not require further conversion at the data logger and DCS. The captured data is recorded and stored at the DCS for further			CAR E.6-2	OK	

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
method is in line with the registered monitoring plan of the PDD and the applied methodology.	DML6/ /CF11/ /CF21/ /CF32/ /CF42/ /CF54/ /E7/	processing.		
		The temperature of LFG at Flare 1, Flare 2, GSS1, GSS2 and GSSF1 has temperature exceeds 60°C several minutes during the monitoring period. The PP has applied Option A and Option B formula to re-calculate the flow rate to a lower value for conservativeness.		
		Flare 2: Delay in calibration conducted on 13/09/2017 no error found. MPE of 0.5% applied to data for period 07/06/2017 to 12//09/2017 is the instrument accuracy error.		
		GSS1: Delay in calibration conducted on 13/09/2017 no error found and MPE of 1% applied to data for period 07/06/2017 to 12//09/2017 in the instrument accuracy error.		
		GSS2: Delay in calibration conducted on 05/01/2017, no error found and MPE of 0.1% applied to data for period 28/08/2016 to 04/01/2017 is the instrument accuracy error.		
		Verifier’s action: The ER spreadsheet was reviewed to verify MPE is applied to data for the affected periods. The calibration reports were checked there is no error during calibration. The instruments specification is crosschecked for accuracy correctness. A manual reading is conducted once daily to crosscheck instrument is operating.		
		Conclusion: The parameter is monitored in accordance with the approved PDD and applied methodology		
<div><div><input checked="" type="checkbox"/></div><div>In this context the following findings have been raised:</div></div>				
<div><div><input checked="" type="checkbox"/></div><div>CAR E.6-2</div></div>				
<div><div><input type="checkbox"/></div><div></div></div>				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> <i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i>	/MR/ /ER1/ /CF11/ /CF21/ /CF32/ /CF42/ /CF54/ /MM1/ /IM01/	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	CAR E.8-2	OK
		<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6		
		<input type="checkbox"/>	No delayed calibration has occurred		
		<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
		<input checked="" type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input checked="" type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer Appendix 6 for details End date of delay: Refer Appendix 6 for details		
		<input checked="" type="checkbox"/>	A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
		<input checked="" type="checkbox"/>	The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration		
		<input checked="" type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
		<input type="checkbox"/>	The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input checked="" type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input checked="" type="checkbox"/>	The error has been applied all measured values taken		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div></div> <div>during the period between the scheduled date of calibration and the actual date of calibration.</div> <div> <input type="checkbox"/> In this context the following findings have been raised: <div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> </div> </div>		
11. P_t (P_{PT2,F1}, P_{PT2,F2}, P_{PT2,GSS1}, P_{PT2,GSS2}, P_{PT2,GSSF1})		Description: Pressure of the gaseous stream in time interval t		
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/MR/ /PDD1/ /ACM1/ /ER1/ /ER6/ /CF13/ /CF23/ /CF32/ /CF42/ /CF54/ /DML1-DML6/ /E8/	Description: This parameter measures the pressure of the LFG at Flare 1 (from 28/08/2016 to 03/01/2017), Flare 2, GSS1, GSS2 and GSSF1 (from 01/06/2017 to 31/12/2017). Flare 1 stop operating on 03/01/2017 and convert to GSSF1 with operation starts on 01/06/2017. The measurement is continuously by an integrated pressure transmitter with a sensor to capture the data. The measured data will be converted to normalise value that does not require further conversion at the data logger and DCS. Flare 1: Operated from 28/08/2016 to 03/01/2017 and was converted to GSSF1. Flare 2: Delay in calibration on 12/09/2017 with no error found and MPE of 0.25% which is the equipment accuracy error is applied to data from 07/06/2017 – 12/09/2017. The impact of applying this error to the flow normalisation is negligible. GSS1: Delay in calibration on 12/09/2017 with no error found and MPE of 0.1% which is equipment accuracy error is applied to data for period 07/06/2017 to 12/09/2017. The impact of applying this error to the flow normalisation is negligible.	CAR E.6-2	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.						
		<p>GSS2:</p> <p>Delay in calibration on 05/01/2017 with no error found. MPE of $\pm 0.4\%$ which is equipment accuracy error is applied to data from 28/08/2016 to 04/01/2017. The impact of applying this error to the flow normalisation is negligible.</p> <p>GSSF1:</p> <p>Operations from 01/06/2017 to 31/12/2017.</p> <p>For delay in calibration, the effect of the overdue calibration of PT2 to the normalised flow for the affected period is re-calculated for GSS1 and GSS2.</p> <p><i>Verifier's action:</i></p> <p>The raw data was reviewed and cross checked with ER spreadsheet during onsite visit for consistency and MPE applied to the data for the affected period was crosschecked with calibration reports and instrument accuracy error for correctness.</p> <p>A manual reading is conducted once daily.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-2</td></tr> <tr> <td><input type="checkbox"/></td><td></td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-2	<input type="checkbox"/>			
<input checked="" type="checkbox"/>	In this context the following findings have been raised:									
<input checked="" type="checkbox"/>	CAR E.6-2									
<input type="checkbox"/>										
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the</i></p>	<p>/MR/ /ER1/ /CF13/ /CF23/</p>	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> </table>	<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	OK	OK		
<input checked="" type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan									
<input checked="" type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6									

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/CF32/ /CF42/ /CF54/ /MM1/ /IM01/	<input type="checkbox"/> No delayed calibration has occurred		
		<input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.		
		<input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input checked="" type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: Refer Appendix 6 below for details End date of delay: Refer Appendix 6 below for details		
		<input checked="" type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
		<input checked="" type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration		
		<input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input checked="" type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input checked="" type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
<input type="checkbox"/> In this context the following findings have been raised:	<input type="checkbox"/>	<input type="checkbox"/>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
12. P_{H2O,t,Sat}		Description: Saturation pressure of H₂O at temperature T_t in time interval t		
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/MR/ /PDD1/ /TMF/	<p><i>Description:</i></p> <p>The data is derived from the Tool to determine the mass flow of a greenhouse gas in a gaseous stream version 3.0.</p> <p>The data to calculate the absolute pressure by adding the ambient pressure at normal conditions to the gauge pressure.</p> <p>No measurement is required.</p> <p><i>Verifier's action:</i></p> <p>The data applied is in the MR is crosscheck with the tool for correctness.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved PDD and applied methodology</p> <div> <input type="checkbox"/> In this context the following findings have been raised: <div> <input type="checkbox"/> <input type="checkbox"/> </div> </div>	OK	OK
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest	/MR/ /PDD1/ /TMF/ /MM1/ /IM01/	<div> <input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan </div> <div> <input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6 </div> <div> <input type="checkbox"/> No delayed calibration has occurred </div> <div> <input checked="" type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct. </div> <div> <input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for </div>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>EB guidance.</i> Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.		<input type="checkbox"/> this entire monitoring period.		
		<input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY		
		<input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
		<input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration		
		<input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
		<input type="checkbox"/> In this context the following findings have been raised:		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
13. $V_{CO_2,t,db}$		Description: Volumetric fraction of greenhouse gas CO₂ in the gaseous stream in time interval t on a dry basis		
a) Measurement / Determination method (VVS, §§ 363-367)	/MR/ /PDD1/	Description: The parameter measured manually using a portable gas analyser	CAR E.6-2	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/O3/	on a weekly basis. A minimum sampling frequency of one sample per week. The collected data is to calculate to obtain the lower bound of 95% confidence interval. The data is for reporting purposes and not applied in ER calculations.	CAR E.6-8	
		Verifier’s action: The manual measured data using the portable gas analyser is review during onsite. The calculation to obtain the lower bound 95% confidence interval level is verified for correctness for the % stated in the MR.		
		Conclusion: The parameter is monitored in accordance with the approved revised PDD and applied methodology		
		<div><div><input checked="" type="checkbox"/></div><div>In this context the following findings have been raised:</div></div>		
		<div><div><input checked="" type="checkbox"/></div><div>CAR E.6-2</div></div>		
<div><div><input checked="" type="checkbox"/></div><div>CAR E.6-8</div></div>				
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/MR/ /PDD1/ /O3/ /MM1/ /IM01/	<input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	CAR E.6-8	OK
		<input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6		
		<input type="checkbox"/> No delayed calibration has occurred		
		<input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.		
		<input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.	
Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.		<input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY			
		<input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:			
		<input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration			
		<input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument			
		<input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument			
		<input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals			
		<input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.			
		<input checked="" type="checkbox"/> In this context the following findings have been raised:			
		<input checked="" type="checkbox"/> CAR E.6-8			
		<input type="checkbox"/>			
14. $V_{O_2,t,db}$		Description: Volumetric fraction of greenhouse gas O_2 in the gaseous stream in time interval t on a dry basis			
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured /	/MR/ /PDD1/	Description: The parameter is measured continuously by an online gas analyser.	CAR E.6-2 CAR	OK	

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.												
<p><i>determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the 28/08/2016 to 0 measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	/ER3/ /ER4/ /O4/	<p>The data stated in MR is an average of the aggregated data for each month.</p> <p>The data is for reporting purposes and not applied in ER calculations.</p> <p><i>Verifier's action:</i></p> <p>The measured data is review. The calculation for the average data stated in MR is crosscheck for correctness.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved revised PDD and applied methodology</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-2</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-8</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-2	<input checked="" type="checkbox"/>	CAR E.6-8	E.6-8							
<input checked="" type="checkbox"/>	In this context the following findings have been raised:															
<input checked="" type="checkbox"/>	CAR E.6-2															
<input checked="" type="checkbox"/>	CAR E.6-8															
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/MR/ /PDD1/ /ER3/ /Er4/ /O4/ /MM1/ /IM01/	<table border="1"> <tr> <td><input type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr> <tr> <td><input type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> <tr> <td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr> <tr> <td><input type="checkbox"/></td><td>As per the initial assessment the monitored value is deemed to be correct.</td></tr> <tr> <td><input type="checkbox"/></td><td>Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.</td></tr> <tr> <td><input type="checkbox"/></td><td>Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY</td></tr> </table>	<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	<input type="checkbox"/>	No delayed calibration has occurred	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.	<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.	<input type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY	CAR E.6-8	OK
<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan															
<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6															
<input type="checkbox"/>	No delayed calibration has occurred															
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		<div>End date of delay: DD/MM/YYYY</div> <div> <input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <div> <input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration <input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument <input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument <input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals <input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration. </div> </div> <div> <input checked="" type="checkbox"/> In this context the following findings have been raised: <div> <input checked="" type="checkbox"/> CR E.6-8 <input type="checkbox"/> </div> </div>		
15. Status of biogas destruction device		Description: Operational status of biogas destruction devices		
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment	/MR/ /PDD1/ /ER1/ SDR1- SDR7/ /MS1-	Description: This parameter monitors the operation of the energy plant of the 4 gas engines and flare 2 operating hours. A run hour meter records the running hour for each of the gas engines. The reading is recorded daily by the responsible operator. The difference in start day and the end day of the month is the running hours for the month	CAR E.6-2 CAR E.6-9	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.												
<p><i>other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	MS6/ /ER7/ /ER9/	<p>The operation of the flare system is measured continuously by a flame detector whenever the flare operates.</p> <p>The data is capture in the DCS system.</p> <p><i>Verifier's action:</i></p> <p>The daily records were crosschecked with the shut downtime, maintenance and service and operation hour records.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved PDD and applied methodology</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-2</td></tr> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-9</td></tr> </table>	<input checked="" type="checkbox"/>	In this context the following findings have been raised:	<input checked="" type="checkbox"/>	CAR E.6-2	<input checked="" type="checkbox"/>	CAR E.6-9								
<input checked="" type="checkbox"/>	In this context the following findings have been raised:															
<input checked="" type="checkbox"/>	CAR E.6-2															
<input checked="" type="checkbox"/>	CAR E.6-9															
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	/MR/ /PDD1/ /ER1/ /MM1/ /IM01/	<table border="1"> <tr> <td><input type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr> <tr> <td><input type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr> <tr> <td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr> <tr> <td><input type="checkbox"/></td><td>As per the initial assessment the monitored value is deemed to be correct.</td></tr> <tr> <td><input type="checkbox"/></td><td>Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.</td></tr> <tr> <td><input type="checkbox"/></td><td>Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY</td></tr> </table>	<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	<input type="checkbox"/>	No delayed calibration has occurred	<input type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.	<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.	<input type="checkbox"/>	Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY	CAR E.6-9	OK
<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan															
<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6															
<input type="checkbox"/>	No delayed calibration has occurred															
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		<input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the: <table border="1"> <tr> <td><input type="checkbox"/></td><td>The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration</td></tr> <tr> <td><input type="checkbox"/></td><td>The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</td></tr> <tr> <td><input type="checkbox"/></td><td>The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument</td></tr> <tr> <td><input type="checkbox"/></td><td>The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals</td></tr> <tr> <td><input type="checkbox"/></td><td>The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</td></tr> </table> <input checked="" type="checkbox"/> In this context the following findings have been raised: <table border="1"> <tr> <td><input checked="" type="checkbox"/></td><td>CAR E.6-9</td></tr> <tr> <td><input type="checkbox"/></td><td></td></tr> </table>	<input type="checkbox"/>	The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration	<input type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument	<input type="checkbox"/>	The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument	<input type="checkbox"/>	The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals	<input type="checkbox"/>	The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.	<input checked="" type="checkbox"/>	CAR E.6-9	<input type="checkbox"/>			
<input type="checkbox"/>	The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration																	
<input type="checkbox"/>	The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument																	
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<input checked="" type="checkbox"/>	CAR E.6-9																	
<input type="checkbox"/>																		
16. FC_{i,j,y}		Description: Quantity of fuel type i combusted in process j during the year y																
a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been	/MR/ /PDD1/ /ER1/ /O1/	Description: The parameter monitors the usage of diesel by the standby genset. A fuel meter is use to monitor the diesel consumption. The meter installed at the genset is part of engine management system therefore, no calibration is required. During this monitoring period, the amount fuel consumed is mainly for monthly testing of the genset.	CAR E.6-2 CAR E.6-10	OK														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>		According to the approved PDD, the usage of fuel is crosscheck with purchased quantities and usage stock change.		
		<i>Verifier's action:</i> The monthly testing and fuel records were verified to crosscheck the monthly test run dates. The amount of fuel filled initially was verified with the invoice. During the onsite the fuel gauge was inspected that indicate the amount fuel left in the tank was approx.68 liters based on the gauge meter. For conservativeness, the PP has applied the full 700 liters to calculate the project emissions for diesel consumption. The fuel is measured in liter. For the calculation, the amount of diesel in liter is converted to t/y by multiplying with the density of diesel (kg/l). The data applied in the ER spreadsheet has been verified.		
		<i>Conclusion:</i> The monitoring of the parameter is in accordance to the approved PDD		
		<input checked="" type="checkbox"/> In this context the following findings have been raised:		
		<input checked="" type="checkbox"/> CAR E.6-2		
		<input checked="" type="checkbox"/> CAR E.6-10		
b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative</i>	/MR/ /PDD1/ /MM1/ /IM01/	<input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	OK	OK
	<input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6			
	<input type="checkbox"/> No delayed calibration has occurred			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)		Draft Concl.	Final Concl.
<p><i>assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>		<input checked="" type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.		
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		<input type="checkbox"/>	In this context the following findings have been raised:		
<input type="checkbox"/>		<input type="checkbox"/>			
17. EF _{CO₂,i,y}		Description: Weighted average CO ₂ emission factor of fuel			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.										
		type i in year												
<p>a) Measurement / Determination method (VVS, §§ 363-367) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p>	/ MR / / IPCC / / PDD1 / / ER1 /	<p><i>Description:</i></p> <p>The parameter monitors the weighted average CO₂ emission factor of fuel type i in year y.</p> <p>The fuel used by the genset is diesel.</p> <p>There is no instrument used to measure the data</p> <p>The value is based on IPCC default value or from fuel supplier, therefore no calibration required</p> <p><i>Verifier's action:</i></p> <p>The value applied by the project owner is the default value from IPCC since the data was not available from the fuel supplier.</p> <p>Therefore, is applied appropriately</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the approved PDD.</p> <table border="1"> <tr> <td><input type="checkbox"/></td> <td>In this context the following findings have been raised:</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> </tr> </table>	<input type="checkbox"/>	In this context the following findings have been raised:	<input type="checkbox"/>		<input type="checkbox"/>		OK	OK				
<input type="checkbox"/>	In this context the following findings have been raised:													
<input type="checkbox"/>														
<input type="checkbox"/>														
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374) In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring</p>	/ MR / / MM1 / / ER1 / / IM01 /	<table border="1"> <tr> <td><input type="checkbox"/></td> <td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td> </tr> <tr> <td><input type="checkbox"/></td> <td>For details regarding the accuracy and calibration details please refer to Appendix 6</td> </tr> <tr> <td><input type="checkbox"/></td> <td>No delayed calibration has occurred</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>As per the initial assessment the monitored value is deemed to be correct.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Based on calibration certificates checked it can be confirmed</td> </tr> </table>	<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan	<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6	<input type="checkbox"/>	No delayed calibration has occurred	<input checked="" type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.	<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed	OK	OK
<input type="checkbox"/>	It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan													
<input type="checkbox"/>	For details regarding the accuracy and calibration details please refer to Appendix 6													
<input type="checkbox"/>	No delayed calibration has occurred													
<input checked="" type="checkbox"/>	As per the initial assessment the monitored value is deemed to be correct.													
<input type="checkbox"/>	Based on calibration certificates checked it can be confirmed													

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i>		<input type="checkbox"/> that the monitoring equipment has been duly calibrated for this entire monitoring period.		
		<input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period: Start date of delay: DD/MM/YYYY End date of delay: DD/MM/YYYY		
		<input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:		
		<input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration		
		<input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument		
		<input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals		
		<input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.		
		<input type="checkbox"/> In this context the following findings have been raised:		
		<input type="checkbox"/>		
<input type="checkbox"/>				
18. NCV_{i,y}		Description: Weighted average net calorific value of fuel type i in year y		
a) Measurement / Determination method (VVS, §§ 363-367)	/MR/ /PDD1/	Description: The parameter monitors the weighted average net calorific value of	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.				
Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/IPCC/ /ER1/	<p>fuel type i in year y for the fuel used by the standby diesel genset.</p> <p>There is no instrument used to measure the data.</p> <p>The value is based on IPCC default value or from fuel supplier, therefore no calibration required</p> <p><i>Verifier's action:</i></p> <p>During this monitoring period, the project owner has applied the default value derived from Table 1.2, Vol. 2 of the 2006 IPCC Guidelines since there is no data available from the fuel supplier.</p> <p>The ER calculation is crosscheck for correctness.</p> <p><i>Conclusion:</i></p> <p>The monitoring of the parameter is in accordance to the approved PDD.</p> <p><input type="checkbox"/> In this context the following findings have been raised:</p> <table border="1"> <tr> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> </tr> </table>	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>								
<input type="checkbox"/>								
<p>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 368-374)</p> <p>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</p> <p>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</p> <p>Include calibration dates and information in validity of the installed monitoring equipment in the table in</p>	/MR/ /PDD1/ /MM1/ /IM01/	<p><input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</p> <p><input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6</p> <p><input type="checkbox"/> No delayed calibration has occurred</p> <p><input checked="" type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.</p> <p><input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.</p> <p><input type="checkbox"/> Based on calibration certificates checked a delay in</p>	OK	OK				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
Appendix 6.		<div>calibration has been identified for the following period:</div> <div>Start date of delay: DD/MM/YYYY</div> <div>End date of delay: DD/MM/YYYY</div>		
		<div><input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:</div> <div><input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration</div> <div><input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</div> <div><input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument</div> <div><input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals</div> <div><input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</div>		
		<div><input type="checkbox"/> In this context the following findings have been raised:</div>		
		<div><input type="checkbox"/></div>		
		<div><input type="checkbox"/></div>		

Appendix 6. Calibration dates and validity of installed monitoring equipment

Table A-6: Periodic Verification Checklist – Calibration details

Monitoring equipment	Related monitoring parameter as per applicable registered monitoring plan	Serial number	Type	Accuracy or accuracy class	Previous calibration date	Current Calibration date(s)	Validity of calibration	Delay in calibration : yes/no	Period of delayed calibration
Power Meter	EG _{PJ,y} : EL4 (Flare 1 generation) up to 03/01/2017 EG _{PJ,y} : EL4 (GSSF1) From 01/06/2017	210225256	EDMI	Class 0.5s	03/10/2014	06/01/2017	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 03/10/2016 To: 05/01/2017
	EG _{PJ,y} : EL5 (Flare 2 to Grid)	53099690 (Main)	ltron	Class 0.20	01/04/2011	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 28/08/2016 To: 31/12/2017
		53099691 (Check)			01/04/2011	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 28/08/2016 To: 31/12/2017
	EG _{PJ,y} : EL9 – GSS1 generation (GE2)	211516862	EDMI	Class 0.5s (±0.5%)	13/05/2015	28/01/2018	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 13/05/2017 To: 31/12/2017
	EG _{PJ,y} : EL10 – GSS1 generation (GE3)	211516863	EDMI	Class 0.5s (±0.5%)	13/05/2015	12/05/2017	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 13/05/2017 To: 31/12/2017
	EG _{PJ,y} : EL11 – GSS1 to grid	908705152 (Main)	EDMI	Class 0.5s (±0.5%)	06/12/2009	-	5 years	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 28/05/2016 To: 31/12/2017
		908705154			06/12/2009	-	5 years	<input type="checkbox"/> No	From: 28/08/2016

Monitoring equipment	Related monitoring parameter as per applicable registered monitoring plan	Serial number	Type	Accuracy or accuracy class	Previous calibration date	Current Calibration date(s)	Validity of calibration	Delay in calibration : yes/no	Period of delayed calibration
		(Check)						<input checked="" type="checkbox"/> Yes	To: 31/12/2017
	EG _{PJ,y} : EL12 – GSS2 Generation	213545834	EDMI	Class 0.5s (±0.5%)	04/02/2016	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	EG _{PJ,y} : EL13 – GSS2 to grid	81480576 (Main)	Itron	Class 0.2s (±0.2%)	14/02/2016	-	5 years	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
		81480578 (Check)			14/02/2016	-	5 years	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Power Meter	EG _{EC,y} : EL6 (import)	2661930098	IME NEMO 96HDL	Class 1 ±1%	23/07/2014	22/07/2017	36 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 23/07/2017 To: 31/12/2017
Temperature Transmitter	TEG _m : Flare 1	110910943	PR Electronics	< ± 0.05% of span	07/06/2016	-	12 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	TEG _m : Flare 2	B838901937	Honeywell	± 0.5% of span	07/06/2016	13/09/2017	12 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 13/09/2017
Flow Meter	V _{t,wb} – FT1 - FT119 (Flare 1) *	4972946 / FT119 (8102101)	Rosemount / Kingsway	± 1.0%	12/05/2015	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	V _{t,wb} – FT1 – FT141 (Flare 2)	5476626 / F141 10031702	Rosemount / Kingsway	± 0.5%	12/05/2015	13/09/2017	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 12/05/2017 To: 12/09/2017
	V _{t,wb} – FT2 – FT140 (Flare 2)	5476627 / FT140 10031701	Rosemount / Kingsway	± 0.5%	12/05/2015	13/09/2017	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 12/05/2017 To: 12/09/2017
	V _{t,wb} – FT3 (Flare 2)	02768008 /	Rosemount /	± 0.5%	20/11/2014	05/01/2017	24 months	<input type="checkbox"/> No	From:

Monitoring equipment	Related monitoring parameter as per applicable registered monitoring plan	Serial number	Type	Accuracy or accuracy class	Previous calibration date	Current Calibration date(s)	Validity of calibration	Delay in calibration : yes/no	Period of delayed calibration
		FT161 (11011001)	Kingsway					<input checked="" type="checkbox"/> Yes	20/11/2016 To: 04/01/2017
	V _{t,wb} – FT3 (GSS1 – GE2 & G3)	5988022	Rosemount	± 0.5%	07/06/2016	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	V _{t,wb} – FT3 (GSS2 – GE4)	C150327	Combimass Binder	± 2.5% of reading + 0.2% of full scale	23/06/2015	10/12/2018	24 months	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 28/08/2017 To: 31/12/2017
	V _{t,wb} – FT3 (GSS F1)	02768007 / FT161 (11011001)	Rosemount	±0.5%	05/01/2017	-	24 months	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Gas Analyser	V _{CH4,m,db} – Flare 1	33436	Guardian Plus (97460)	± 2% of full scale	07/06/2016	-	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	V _{CH4,m,db} – Flare 2	31453	Guardian Plus (97460)	± 2% of full scale	13/01/2016	05/01/2017	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	V _{CH4,m,db} – GSS1	34140	Guardian Plus (97460)	±2% of full scale	07/06/2016	08/11/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 09/11/2017
	V _{CH4,m,db} – GSS2	8154	Guardian NG (200950)	±2% of full scale	08/03/2016	-	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/03/2017 To: 12/09/2017
		33542	Guardian Plus (97460)		13/09/2017	-	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	V _{CH4,m,db} – GSSF1	33436	Guardian Plus	±2% of full scale	07/06/2016	13/09/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 12/09/2017

Monitoring equipment	Related monitoring parameter as per applicable registered monitoring plan	Serial number	Type	Accuracy or accuracy class	Previous calibration date	Current Calibration date(s)	Validity of calibration	Delay in calibration : yes/no	Period of delayed calibration
Temperature Transmitter	Tt - T _{TT1,F2} , (Flare 1)	100944768	PR Electronics	< ± 0.05% of span	13/01/2016	-	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
	Tt - T _{TT1,F2} , (Flare 2)	B839917437	Honeywell	±0.5% of span	07/06/2016	13/09/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 12/09/2017
	Tt - T _{TT1,GSS1} (GE2 & 3)	B527143837	Honeywell	±1.0%	07/06/2016	13/09/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 12/09/2017 From: 13/05/2016 To: 06/06/2016
	Tt - T _{TT1,GSS2} (GE4)	ATT2100415 1000	Autrol	± 0.1%	23/04/2015	05/01/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 28/08/2016 To: 04/01/2017
	Tt - T _{TT1,GSSF1} (GE1)	100944768	PR Electronics	< ± 0.05% of span	13/01/2016	05/01/2017	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
Pressure Transmitter	Pt - P _{PT2,F1} (Flare 1)	02492864	Rosemount	±0.25%	13/01/2016	-	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
	Pt - P _{PT2,F2} (Flare 2)	5584784	Rosemount	±0.25%	07/06/2016	13/09/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 12/09/2017
	Pt - P _{PT2,GSS1} (GE2 & GE3)	5916057	Rosemount	±0.1%	07/06/2016	13/09/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 07/06/2017 To: 12/09/2017

Monitoring equipment	Related monitoring parameter as per applicable registered monitoring plan	Serial number	Type	Accuracy or accuracy class	Previous calibration date	Current Calibration date(s)	Validity of calibration	Delay in calibration : yes/no	Period of delayed calibration
	Pt - P _{PT2,GSS2} (GE4)	APT3200-4150998	Autrol	± 0.075% of span	23/04/2015	05/01/2017	Annually	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	From: 23/04/2016 To: 04/01/2017
	Pt - P _{T2, GSS F1} (GE1)	02492864	Rosemount	±0.25%	13/01/2016	05/01/2017	Annually	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	From: To:

Note:

1. Flare No.1 has stopped operation started from 03/01/2017 and has been converted to GSS F1, the parameter for Tt - T_{TT1,F2}, (Flare 1), Pt - P_{PT2,F1} (Flare 1), and V_{CH4,m,db} – Flare 1 converted to Tt - T_{TT1,GSSF1} (GE1), Pt - P_{T2, GSS F1} (GE1), and V_{CH4,m,db} – GSSF1 respectively.
2. Gas Engine No.1 is attached to Flare 2 previously, is converted to GSSF1 and commissioned on 01/06/2017. Parameter for V_{t,wb} – FT3 (Flare 2) converted to FT3,GSSF1. The parameter for EG_{PJ,y}: EL4) and EG_{PJ,y}: EL5 maintain the same labelling

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.1	11 January 2018	Editorial revision to correct the numbering of appendices in the instructions.
02.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		